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Humans, Computers, and Binding Commitment

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I. INTRODUCTION: THE PROBLEM OF CONSENT

As commerce moves online—as the borderless digital networked environment becomes the milieu of exchange transactions—we are seeing new kinds of contracts. Deals are being made between a human and a computer, or between two computers managed only remotely by humans. The locus of contracting is the human/computer interface, rather than the relational interface between two humans. In this Article, I want to pose some questions about the effect of these new contracts on our understanding of contractual commitment and on the law that determines which commitments are binding.

A. Contract-as-Consent and Contract-as-Product

As a preface to this exploration, I will distinguish between two views or models of contract. Call one model "contract-as-consent"; call the other model "contract-as-product." Contract-as-consent is the dominant view in ordinary discourse; contract-as-product is submerged in that discourse (except among some economists) but aptly describes much of transactional practice.

The contract-as-consent model is the traditional picture of how binding commitment is arrived at between two humans. It involves a meeting of the minds between two humans, or at least voluntariness, or at least consent. These terms are both fuzzy and contested; the traditional picture is out of focus. At minimum, consent

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involves a knowing understanding of what one is doing in a context in which it is actually possible for one to do otherwise, and an affirmative action in doing something, rather than a merely passive acquiescence in accepting something. These indicia translate into requirements that terms be understood, that alternatives be available, and probably that bargaining be possible.

The contract-as-product model is the typical model assumed by economists. In this model, the terms are part of the product, not a conceptually separate bargain; physical product plus terms are a package deal. The fact that a chip inside an electronics item will wear out after a year is no less and no more a feature of the item and its quality than the fact that the terms that come with the item specify that all disputes must be resolved in California under California law. In this model, unseen contract terms are no more and no less significant than unseen internal design features; and it is not remarkable that there is no choice other than the take-it-or-leave-it choice not to buy the package.

The contract-as-product model may describe a great deal of modern commercial practice, even before commerce started to move online. Commercial practice has long deviated from the traditional picture of minds meeting about terms, or autonomous consent. Nevertheless, the traditional picture hangs on in the conceptual apparatus legal actors bring to bear on contracts and contract disputes, and it is instantiated sometimes in commercial practice.

How will the move online affect contract, especially the disjunction—and hitherto uneasy coexistence—between the picture of contract-as-consent and the real world of contract-as-product? Two interrelated sets of questions arise here: one revolves around the future of the ideal of voluntary commitment, the other around the future of entitlement regimes, such as privacy and intellectual property. With respect to the ideal of voluntary commitment, will the move online exacerbate the disjuncture between the consent-based picture and the reality of transactions? Or, on the contrary, will availability of customization online to some extent create consent-based transactions where we do not have them now? With respect to the future of entitlement regimes, we should recognize that such regimes could become unstable because of waivers in ubiquitous form contracts. At least, we will have to start arguing about whether the normative backing of any entitlement rule is strong enough to make it nonwaivable by contract, so property arguments might metamorphose into arguments about impermissible contract terms.

B. Has a Picture Held Us Captive?

Rather than start right out on what terms might be impermissible in cyber-contracts and why, in this Article I want to back up and look at the ordinary-discourse view of contract-as-consent, and how it is problematized. What got me started on this project is that contracts in electronic commerce do not look like the traditional picture of meeting of the minds or autonomous consent. The process of contract formation involves the human/computer interface, not the interaction of two autonomous repositories of Kantian personhood. O.K., you might say, but the traditional picture is pretty fuzzy,[1] and in spite of the traditional picture (whatever it is) most contracts

1. *See, e.g.*, Arthur Allen Leff, *Contract as Thing*, 19 AM. U. L. REV. 131 (1970).

in "real" space—the offline world—do not look that way, either. Even if the traditional picture still holds some sway in our minds, that has not prevented practice from moving beyond it. It is not true that "a picture held us captive."[2]

Yet, I think the picture has held us captive to some extent, because it remains a cultural artifact. Lay people (for example, software engineers, marketing managers) still refer to it quite straightforwardly and without qualification. Some legislative drafters still refer to the paradigm case of contract as autonomous agreement between two parties.[3] In the offline world, courts often do validate contracts that deviate from the traditional picture, but when they do, they tend to conceive of such contracts as exceptions to something—that something being a version of the traditional picture. The question I want to ask is: if such exceptional contracts turn out to be completely unexceptional, indeed the mainstay of binding commitment in cyberspace, does that mean a rethinking of the basis of binding commitment is now needed? After all, it has been said that enough of a quantitative difference is a qualitative difference.

Yet, if the offline contracts that deviate from the traditional picture (and the traditional conceptualizations of the basis of commitment) are in practice the majority of contracts, maybe what is happening in cyberspace does not represent so much of a quantitative difference. Then, will our previous understanding of contracts that deviate from the traditional picture carry us readily into the digital era? Maybe so. But maybe not: even if the percentage of all contracts that deviate from the traditional picture does not change drastically as contracting moves into cyberspace, the new methods of contract formation, along with the Web's transparency about what the contracts actually say, may draw more attention to their deviance from that picture. That may further undermine the traditional ways of conceiving of contract.

Perhaps that would be a good thing, since the traditional picture is fuzzy and does not match much of our practice. We will have cleared away the underbrush, so to speak, and that will facilitate recognizing the need for justification. If not the autonomous consent of *B*, what justifies *A*'s rearranging of *B*'s entitlements and wealth? Economic efficiency is a frequently proposed answer, of course. Economic analysis, within its zone of applicability, can make a good case for enforcement of contracts without consent in specific classes of circumstances (however we define consent, for it is surely a contested concept).[4] Economic efficiency has not yet been thought to authorize a blanket change from property rules (requiring consent, however defined) to liability rules (requiring payment as determined by a third party such as a court, but no consent, often likened to "private eminent domain").[5]

In short, I believe that there exists something of a puzzle about how to justify

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2. LUDWIG WITTGENSTEIN, PHILOSOPHICAL INVESTIGATIONS § 115 (G.E.M. Anscombe trans., 1953).

3. *See, e.g., infra* Part IV (discussing the Uniform Electronic Transactions Act ("UETA")).

4. The history of the liberal concept of consent, with its varying interpretations and manifestations, is laid out in fascinating detail in DON HERZOG, HAPPY SLAVES (1989).

5. The property-rule vs. liability-rule terminology comes from Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972). It is handy terminology in a setting where economic exchange is the issue, though it has its drawbacks otherwise. *See, e.g.*, MARGARET JANE RADIN, CONTESTED COMMODITIES ch. 2 (1996); *infra* Part VI.

changes of position imposed on one private party by another, and that the advent of contract in cyberspace may make the puzzle more urgent. The problem, in a nutshell, is that our ordinary-discourse commitment to a consent-based system will come into clearer conflict with practices that do not seem consensual.

We could make the problem go away by attenuating what we mean by consent. The more cases we previously might have thought of as instances of imposed terms we can rethink as consensual, the less we need to worry about private eminent domain. Suppose we learn to believe, for example, that once I set in motion a computer that I ought to know is running a program capable of accepting terms from computers programmed by others to offer them, then I have "consented" to any terms it accepts, regardless of whether I actually knew that the program could accept terms and regardless of whether the terms are expected or foreseeable. In that case, we could still manage to avoid the need to rethink the basis of commitment in terms other than consent.

Perhaps we could make the problem go away simply by replacing the ordinary discourse contract-as-consent model with the economists' contract-as-product model. There are some difficulties here, primarily that we cannot make one concept be replaced by another in ordinary discourse simply by decreeing it. Even if we could, in order for the market to function properly, buyers must know what product they are buying. Even in the contract-as-product model, therefore, effective disclosure would be required. This result is likely to be politically unpopular in some quarters, because very often the free market will not bring about effective disclosure of what the product actually "is."

We could also make the problem go away by attenuating what we mean by "private party." If the public/private distinction gets obliterated in ordinary understanding, then "private" eminent domain will be no less and no more justified than "public." My conclusion is that I do not believe our ordinary understandings on these matters will change quickly enough to avoid the problem. We might have to face the fact that our commitment to a conception of voluntariness in transactions is at odds with much of our commercial world of exchange.

II. EMERGING FORMS OF ONLINE CONTRACT

Let me begin by outlining three methods of contract formation in electronic commerce. They can go by the names "click-wrap," "machine-made," and "viral" contracts. In each case, the procedure raises questions about whether it is really contractual, because it deviates from the traditional conceptualization of contract-as-consent.

A. Contract as Click (a.k.a. "Click-Wrap")

A great many commercial websites have taken to posting fine-print terms on interior pages. There are enough of them to have spawned a couple of acronyms—"TOS" (Terms of Service) and "COU" (Conditions of Use). At

www.Disney.com, for example, "where the magic lives online,"[6] the following link appears at the bottom of the home page in small print. Many users probably will not scroll down to the bottom of the page, and if they do not, they will not see the link. "Please click here for legal restrictions and terms of use applicable to this site. Use of this site signifies your agreement to the terms of use."[7]

If you do click on this link, you will find a lot of fine print. One portion says:

> By uploading materials to any Forum or submitting any materials to us, you automatically grant (or warrant that the owner of such rights has expressly granted) us a perpetual, royaltyfree, irrevocable, nonexclusive right and license to use, reproduce, modify, adapt, publish, translate, create derivative works from, and distribute such materials or incorporate such materials into any form, medium, or technology now known or later developed throughout the universe. In addition, you warrant that all so-called moral rights in those materials have been waived.[8]

Another portion says:

> You agree that any action at law or in equity arising out of or relating to these terms shall be filed only in the state or federal courts located in Los Angeles County and you hereby consent and submit to the personal jurisdiction of such courts for the purposes of litigating any such action.[9]

Consider another example, found at Beyond.com, a purveyor of downloadable software whose commercials have featured a naked telecommuter.[10] On the home page you will find, if you take the trouble to scroll down all the way to the bottom, a small link for "Terms of Use," which does not even request that you click on it. If you choose to click on it you will find a lot of fine print, including this: "Beyond.com reserves the right to make changes to this site and to these terms and conditions at any time. Any such modifications will become effective upon the date they are first posted to this site."[11]

Amidst the fine print you will also find this:

> This Agreement shall be construed in accordance with and governed by the internal laws of the State of California (as permitted by Section 1646.5 of the California Civil Code or any similar successor provision) without giving effect to any choice of law rule that would cause the application of the laws of any jurisdiction other than the internal laws of the State of California to the rights and duties of the parties. . . . Beyond.com may freely transfer, assign, or delegate all or any part of this Agreement, and any rights and duties thereunder, without the requirement of consent. This Agreement will be binding upon and inure to the

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6. *Disney Homepage* (visited Feb. 12, 2000) <http://www.disney.go.com>.

7. *Id.*

8. *Disney Legal Conditions* (visited Feb. 12, 2000) <http://disney.go.com/legal/conditions_of_use.html?clk=8884>.

9. *Id.*

10. *See Beyond.com Terms of Use* (visited Feb. 12, 2000) <http://www.beyond.com/termsofuse.htm>.

11. *Id.*

benefit of the heirs, successor, and permitted assigns of the parties.[12]

There is every reason to believe that almost all commercial websites will use a TOS or COU. Right now, each TOS or COU seems to be individually drafted. The examples I have given so far lean toward the contract-as-product model; the terms are there whether you see them or not. A contrasting approach is taken by eBay.com. That site makes every effort to get you to read and understand its terms, with explanatory resources you can click on, people you can e-mail, or even talk to on the phone.[13] It is an example of trying to implement a consent model. In spite of the proliferation of different terms, and in spite of the fact that some sites lean toward the contract-as-product approach and others toward a contract-as-consent approach, it is very possible that industries will soon settle on standardized sets of terms. I will return later to the interesting issues surrounding standardization in this context.

B. Machine-Made Contract

By machine-made contract, I am referring to a loose category of transactions that are structured in the first instance by machines, with the humans in the background at some remove. Strictly speaking, it is a machine-implemented transactional structure when I use my personal computer to click on a box on my screen which then registers with a server computer somewhere else. I am dubbing transactional structures (whether or not contractual is a question to be answered) machine-made, however, only if the human pushing the key is not so directly involved. Machine-made contract in this sense falls into two broad categories: computers as electronic "agents," and computers as electronic enforcers.

1. Electronic "Agents"

In this category of machine-made contract, the idea is that two computers (rather than two humans, or one human and one computer) "negotiate" with each other and arrive at "agreement" with each other. Using the term "agency" in the locution "electronic agency" has become common, so I am adopting the usage, but before proceeding I want to register a caveat. The terms should seem peculiar in this context. When a computer does something "for" me that I have allowed it to be programmed to do, it is only an "agent" in a mechanical sense; it carries out the instructions of the program automatically so I will not have to do it manually. The term "agent" means something else when we are considering human "agency." Human "agency" refers to the freedom of autonomous beings. Human "agency" figures prominently in the traditional picture of contract-as-consent: it takes a human "agent" to be able to give voluntary consent. The law of "agency," which developed to cover situations in which one human delegated tasks to another, perhaps partakes of both senses; but no "agent" in a "principal-agent" relationship could be in the mechanized relationship that one who causes a computer to run a program is with that computer's activities. Use of the term "electronic agent" runs together these meanings and may cause us not

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12. *Id.*

13. *See eBay.com* (visited Jan. 20, 2000) <http://www.ebay.com>.

to see how the issue of consent is being submerged or metamorphosed.

Right now, the computer-to-computer electronic agent scenario is primarily being developed in industrial procurement and general supply-chain management. In the generation following Electronic Data Interchange ("EDI")—a set of protocols developed in the 1980s for information sharing between trading partners—both extranets and the Web are being used to couple the vast power of digital automation with principles of just-in-time manufacture and distribution.[14] In this form of industrial organization, many repetitive tasks are or will be accomplished by machine. Among these tasks are ordering and paying for supplies that are routinely needed at certain points in a process. The ordering, delivery, and payment for such supplies means that there are contractual terms surrounding the transaction—the time of delivery, what to do if the supplies do not arrive in time or are defective, what to do if the payment is late, and all the other transactional parameters that people contract about. All of this can in principle be handled primarily by machine, using computer programs that "negotiate" with each other and enter into "agreements" with each other.

Although automated supply-chain management is in the vanguard of the form of machine-made contract I have (reluctantly) designated electronic agency, in the near future these machine-made contracts may well become very widespread. Electronic agents may shop for us, organize our homes and offices for us, and so on.

2. Electronic Enforcers

In the second category of machine-made contract, known as digital rights management systems or trusted systems, computer programs enforce the terms of a transfer of digital content. The system is "trusted" (more trustworthy than a human) because it is technologically incapable of deviating from the instructions it is given.[15] Those instructions may be, for example, to enforce a thirty-day license by erasing the content from the licensee's machine when the thirty days are up; or to enforce a restriction against copying either by preventing the copy from being made or by erasing the content from the licensee's machine if copying is attempted. Such detailed self-enforcement mechanisms will likely be a significant aspect of the human/computer interface for electronic commerce. They are viewed with alarm by some, but welcomed by others whose vision of anarchic self-ordering in cyberspace includes widespread technological self-enforcement.[16]

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14. *See* John P. Fischer, Note, *Computers as Agents: A Proposed Approach to Revised U.C.C. Article 2*, 72 IND. L.J. 545 (1997).

15. *See, e.g.*, Mark Stefik, *Letting Loose the Light: Igniting Commerce in Electronic Publication*, *in* INTERNET DREAMS 219, 226-28 (Mark Stefik ed., 1996); *see also* Julie E. Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"*, 97 MICH. L. REV. 462, 471 (1998).

16. Of the many who believe that technology, not law, will structure cyberspace, some think that technological self-enforcement will succeed in locking up property rights even more securely than fences in real space (a result that some deplore and some applaud); and some think that hackers will always stay one step ahead of technological locks, undermining property rights in information (a result that some deplore and some applaud). A particular configuration of contradictory beliefs is held by those I call "anarcho-cyberlibertarians," who

C. Viral Contracts

The analogy of viral propagation has proved apt for various aspects of information transfer in a networked digital environment. Information can be rapidly replicated, and each replica in turn can be rapidly replicated, and so on through a chain of replication throughout the network. Most people are familiar with computer viruses, which are destructive software programs that are spread through successive replication in this way. But the analogy holds more broadly. The economics of the networked environment have engendered a phenomenon known as viral marketing. In this form of marketing, the seller provides incentives for buyers to obtain other customers, and for those customers in turn to obtain other customers, and so on.[17] Many commercial websites have "affiliates" programs designed to do this.[18]

In the future, we should expect to see more and more viral marketing. Instead of locking up intellectual property, for example, many purveyors of content will be better off by allowing their content to propagate freely, as soon as there is a viable automatic payment mechanism than can cause payment to be extracted from whoever downloads the content, wherever it goes. Moreover, much content on the Web is (and more will be) free advertising for follow-on services. The more this content propagates, the better for its initiator, as long as technological safeguards exist to maintain its integrity and keep the advertiser's name on it.

In keeping with the viral character of content propagation, a transactional phenomenon I call viral contract is arising. A viral contract (or attempted viral contract, because we do not know yet whether these attempts will result in an actual contract) is simply an attempt to make commitments run with a digital object. For example, in the viral advertising program I described above, the advertiser who initiates the spread of the content would like to make each and every user into whose hands the content comes be obligated not to alter the content or remove the advertiser's name from it. The initiator would like, in other words, to attach the obligations regarding the content to the content itself, so that everyone who comes into possession of the content would also inherit the obligations to the initiator. Viral contract attempts to make the fine print run with the product. In a sense, it is the ultimate instantiation of the contract-as-product model.

The clearest instance of attempted viral contract today involves open source software. The Linux operating system, which now has a nontrivial share of the market, is governed by a version of the General Public License promulgated by Richard Stallman and the Free Software Foundation, in conjunction with a kernel developed by Linus Torvalds. The open source "movement" is based on the idea that each recipient in a chain of distribution is bound to make public (or make

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are committed to anarchic nonlegal self-organization and at the same time to strong property rights, which must stem from a legal regime. *See* Margaret Jane Radin & R. Polk Wagner, *The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace*, 73 CHI.-KENT L. REV. 1295, 1297 (1998).

17. Note www.mobshop.com, whose business model involves viral marketing. The site offers an item for sale whose price goes down as you get more people to buy it (and they in turn get more people to buy it) within a set time frame.

18. *See, e.g.*, *Associate Web* (visited June 8, 2000) <www.associateweb.com>.

available to all those in the chain) any improvements effected in the source code.[19] The license uses copyright to make copyright narrower (keeping in the public domain what otherwise would have been property of the improvers). Because of this narrowing effect, the license is known as "copyleft." However, in what might be called "supercopyright," the same technique can also be used to attempt to broaden copyright (or for that matter other intellectual property entitlement schemes). An example would be a "running" waiver of the fair use defense to copyright infringement, in which a distributor seeks to foreclose that defense for all users in a chain of distribution.

Software publishers have hitherto "licensed" rather than sold copies of their software so that they could restrict transfer, and so that they could maintain restrictions after a sublicense was effected. Software publishers most likely would prefer viral sales contracts with running obligations on all transferees in a chain of distribution, and merely doubt their legal enforceability (as well as whether transferees would accept such obligations in the market). But if market forces bring the total restraint-on-alienation model into disfavor, and changes in the law validate viral contracting, we might see viral contracting become very commonplace.

III. ARE THESE ONLINE CONTRACTS NEW LEGAL ANIMALS? SOURCES OF ANALOGY FROM THE OFFLINE WORLD

Some features of these online contracts seem problematic from the perspective of the traditional picture of contract-as-consent. Many of Disney.com's visitors are children and could not validly contract with Disney either online or offline. But bypassing the issue of contractual competence, does the procedure together with the substantive content of the terms generate binding commitment? Has contract formation taken place between you and Disney if you never click on the link labeled "Please click here for legal restrictions and terms of use"? Can Disney's proclamation that use of the site signifies your agreement to the terms as they change from time to time be sufficient to effectuate a transfer of your intellectual property rights throughout the universe? Or to make you liable if the so-called "moral rights" that the French say are not waivable in fact turn out not to be waived? And can Beyond.com, which does not tell you that you ought to click on its terms of service, still render its terms binding not only on you but on your successors as well? Although these contracts deviate from the traditional picture, contracts we often see in the offline world have probably occurred to you as analogies. Perhaps they can help us learn how to deal with contracts in cyberspace.

A. Precursors of "Click-Wrap" Contracts

Website presentation of terms is analogous in certain significant respects to what

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19. *See The Open Source Page* (visited Feb. 12, 2000) <http://www.opensource.org>; *see also* OPEN SOURCES: VOICES FROM THE OPEN SOURCE REVOLUTION (Chris Dibona et al. eds., 1999); ERIC S. RAYMOND, THE CATHEDRAL AND THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY (1999); Eben Moglen, *Anarchism Triumphant* (last modified Dec. 2, 1999) <http://emoglen.law.columbia.edu/my_pubs/anarchism.html>.

is known as a shrink-wrap license, usually used in software distribution. (That, of course, is where the term "click-wrap" comes from.) There are two different species of shrink-wrap license. In the first kind, the terms are presented before purchase of the software, on the box or plastic shrink-wrap that covers the box. The seller maintains (and hopes) that when you break the shrink-wrap, it signifies that you have agreed to the terms and a license contract is formed. In the second kind of shrink-wrap license, the terms are not presented to you before you buy; instead, the outside of the box informs you that there are terms inside that you will see later (perhaps on the screen when you run the software) and that you will be bound to them if you use the software. The contract-as-product model describes both procedures, especially the second.

Primarily because courts remain committed to the ordinary language view of contract-as-consent, the legal validity of shrink-wrap licenses—that is, whether or not presentation of terms in this way causes a contract to be formed—remains in doubt.[20] *ProCD, Inc. v. Zeidenberg*,[21] written by an economist judge who is friendly to the contract-as-product model, has become well-known for validating a shrink-wrap license of the second kind. In that case, ProCD's product was a CD containing a telephone-number database. A purported contract that appeared on the screen when the program was run prohibited users from copying the database. If valid, this was a contractual extension of ProCD's rights under copyright law, since, under U.S. copyright law, databases are not protected if they are "unoriginal."[22] Zeidenberg, the defendant, relied on copyright law to copy the database; ProCD relied on contract law to argue that he could not.

Although the terms were not seen by the buyer before he purchased the product, Judge Easterbrook held that the contract was validly formed as long as two conditions were met: (1) something on the outside of the box warned the consumer that terms were inside, and (2) the consumer could return the product for a refund after seeing the additional terms.[23] Although *ProCD* has become an influential case, especially among software publishers, another judge in another jurisdiction might have held otherwise in this case (as some have in other cases);[24] and what will happen in future cases, if the matter is left up to the courts, is by no means certain.

A website that shows you its terms and says, "If you click in this box you have agreed to my terms," under circumstances in which the website is programmed so that you will not be allowed to use the site if you do not, is somewhat analogous to a shrink-wrap license of the first kind. The website is programmed so that the click signifying "agreement" is required before you can use the site; similarly, you will not get to use shrink-wrapped software if you do not signify "agreement" by breaking the shrink-wrap. Some websites, such as eBay, are presenting their terms this way. Although they are somewhat analogous to shrink-wrap of the first kind, the analogy does not go all the way. For one thing, it is no doubt easier to read terms that

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20. *See, e.g.*, Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239 (1996).

21. ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

22. *See* Feist Publications, Inc. v. Rural Tel. Serv., 499 U.S. 340 (1991).

23. *See ProCD*, 86 F.3d at 1450.

24. *See, e.g.*, Step-Saver Data Sys., Inc. v. Wyse Technology, 939 F.2d 91 (3d Cir. 1991).

are presented to you on your computer screen than to read the terms on a shrink-wrapped package while you are in the store deciding whether to purchase it. Also, it will be easier for you to retain a copy of the terms from the website, since you can copy them and print them out, whereas if the terms are actually on the shrink-wrap, they will be hard to read after you break it.

A website that says on the home page nothing more than "Terms of Use" might be somewhat analogous to a shrink-wrap contract of the second kind. That kind of shrink-wrap tells you on the outside only that there are binding terms inside. Beyond.com's home page link says only "Terms of Use," and there are many websites that do this.[25] A website like this is analogous to shrink-wrap of the second kind only if we interpret its silence as saying to the user, "By continuing to use this site you are bound to a set of terms which you will only see if you choose to click on them." Under this interpretation it is analogous to becoming bound to further terms inside the box (or on the first screen). But the interpretation stretches things; silence is in fact not the same thing as alerting you that further terms await you inside. Also detracting from the analogy is the fact that with software purchase the terms usually show themselves to you, and in the website case you must affirmatively do something in order to see them. Recall also that even in *ProCD*, where the judge was quite sympathetic to the shrink-wrap procedure, a condition for its validity was that the user be able to unwind the deal after viewing the terms (for example, by returning the product for a refund).[26] For many digital contracts of this type it is rather difficult for the consumer to return the product after viewing the terms. (A group of Linux users who tried to return the Windows software (or operating system) found that out.[27])

We should keep in mind the real world and the prevalence of the contract-as-product model in practice, even if many of us have not quite admitted that to ourselves in our ordinary discourse about contract. In the offline world there are a great many contracts in which the buyer does not see many of the terms until after buying the product. We purchase a large range of items (including shrink-wrapped software) over the telephone and have no opportunity to see the fine print until shipment is received. Consumer product warranties are often inside the box. In some classes of these contracts, such as the fine-print inserts that come with my credit card bill once in awhile, new terms are imposed at the seller's will from time to time. In all of these contracts, it appears that the promisor must at least be given the option of declining after the fact to be bound, by unwinding his or her initial acceptance of the product (for example, ceasing to use the credit card). It does not appear, though, that the option in practice is anything more than theoretically possible. Even though I am a lawyer, and actually once in awhile look at fine print (though not that often), I have

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25. *See, e.g.*, *Stanford Home Page* (visited Feb. 2, 2000) <http://www.stanford.edu>.

26. *See ProCD*, 86 F.3d at 1456.

27. The Windows license told users that if they did not like the terms when they saw them, they should return the software for a refund. A group of Linux users divested their computers of Windows and attempted to obtain a refund. Neither the store that sold them the software nor Microsoft thought it was the appropriate party to fulfill the terms. Finally, the Linux users had a demonstration outside Microsoft's office in the Bay Area. Reports said it was a civilized demonstration in which Microsoft employees came out and served them coffee and doughnuts. *See, e.g.*, Wired News, *Linux Users Shut Their Windows* (visited Feb. 9, 2000) <http://www.wired.com/news/technology/0,1282,17926.00.html>.

never packed up and sent back something I bought over the telephone because I did not like the fine print on the back of the invoice when it came. Do you know anyone who has?

B. Precursors to Machine-Made Contracts

1. The Electronic Agent Scenario

Earlier I described one kind of machine-made contract, an artifact of an automated industrial procurement process in which one firm's machine "negotiates" and "agrees" with another's. At first glance, this situation may look something like the classic "battle of the forms." The "battle" arises where buyer's purchase order, dispatched by one human "agent" for the buyer, has one set of fine-print terms, and seller's invoice, dispatched by a human "agent" for the seller, has another.[28] Always recalling my earlier caveat about the slippage in the meaning of the term "agency," we can see that using electronic agents in the manner envisioned is not quite like the "battle of the forms." In fact, machines can often do better at resolving the battle than humans have done. Suppose machine *A*, for the seller, runs a program that can accept terms one, two, and three, and machine *B*, for the buyer, runs a program that can accept terms three, four, and five. Then the machines can "agree" to a term that both parties have approved, namely term three. (Of course, we are now assuming that permitting a computer under one's supervision to run a program that accepts term three counts as "approving" that term; that is a question we will have to investigate later.)

Once we are past the initial simple scenario, the machine-to-machine context leads to difficulties. If machine *A* accepts terms one, two, and three while machine *B* accepts terms two, three, and four, the programs would need priority rules for deciding whether to "agree" to two or three. The programs would also have to agree on those priority rules, or at least find a way to have each system of priority rules arrive at the same result. More important, a human "agent" often would want to agree to two only if one is also agreed to. Generally, the individual terms in a set are interdependent; it is the entire set of terms that matters economically. (That is, I might accept a shorter warranty, but only if the price is also lowered.)

Once we realize that it is the entire set of terms that matters, we realize that machine *A* is likely to be programmed with one or more sets of terms so that it will only do business with machine *B*s that are programmed with at least one set of terms in common. This likelihood is one reason to think that standardized sets of terms may become quite prevalent in the digital world. (I will come back to the topic of

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28. The legislation attempting to deal with this situation, U.C.C. § 2-207 (1992), has been roundly criticized. It is said to be too complex, ambiguous, and readily misunderstood; it does not deal adequately with all the types of cases that arise, and in some scenarios irrationally gives one party all of the terms in its form depending on the order in which the forms were sent. *See, e.g.*, JAMES J. WHITE & ROBERT S. SUMMERS, UNIFORM COMMERCIAL CODE § 1-3 (4th ed. 1995) (devoting over 19 pages in hornbook analyzing problems with section 2-207, in which authors disagree with each other, but conclude they "see no way to apply 2-207 that does not sometimes give an unearned and unfair advantage to the person who happens to send the first, or in some cases the second, document").

standardized terms in the digital networked environment.)

The capability of machines in resolving some of the battles of the past over terms may put off the point at which human judgment is required. At some point, however, machine capability comes to an end, and we must tackle the difficult job of programming machines to "know" when they must stop and summon a human to exercise human judgment. Consider the situation if sets of terms in the commercial environment are incompletely standardized. Suppose that machine *A*, programmed with a set of terms *M* (containing 100 terms including *z*), encounters machine *B* programmed with the set of terms *M'* (containing 99 identical terms but *z'* instead of *z*). In that case, since computers are literal-minded, machine *A* would not accept machine *B*'s terms. But a human might see immediately that the deal should still be made, because the choice between *z* and *z'* is unimportant.

It might not solve the problem simply to program machine *A* to accept terms that are close enough, say ninety-nine percent the same, because the other one percent could always be a doubling of the price or a waiver of intellectual property rights, and machine *A* will not "know" that unless it can be programmed to "know." Perhaps it could be programmed to deal with all known variants of terms like *z* that have extant variants. Instead, machine *A* could perhaps be programmed to alert a human (let out a beep or put a dialogue box on the screen) in the event it encounters set *M'*. If not, it will probably have to do this at some point, such as when it encounters an unknown variant, unless encounters with unknown terms simply void the deal.

The broader notion of replacing human "agents" with electronic agents will give rise to new problems, or at least new perspectives on old ones. Consider the practice of employing a personal shopper for gifts, or a (human) agent to purchase art for a collection. The human agent can be empowered to make binding purchases for me without my consent to each purchase. It will be more difficult to program a computer to make judgments about what will fit in my collection and what will not, and how it will "know" when it needs to get my approval on a specific item which might be borderline. The kinds of transactional safeguards that will be needed will be different. Fooling a computer is a different sort of operation than defrauding a human. Computers are more easily fooled in many ways. They do not know when you are joking, or when you meant 100 even though you typed 1000. They do not know when a painting is genuine. On the other hand, they are less easily fooled in some other ways—they make fewer errors in mathematics, for example. They are more "trusted" than humans—they do not embezzle, for example. Although the system may crash, a computer—except in science fiction—will not embark on a frolic of its own.

2. Electronic Enforcers

The imposition of terms by a rights management system may resist assimilation to the category of contractual arrangements. Such a system is a faithful "agent" for the purveyor of content, of course, because it makes the content available to the user only on the terms it is programmed to enforce. But a big difference between this arrangement and a contract between the purveyor and a recipient is that contracts can be breached. In many contemporary economic interpretations of contract, the legal system must expect (and welcome) breach when it is efficient under the circumstances. Our system also contemplates breach when the user wants to exercise a citizen's right to test the legality of the terms. When legality is tested, the state (on

behalf of the community) passes on the acceptability of the terms, creating a check on what kinds of terms can be implemented. Thus, self-enforcement is not the same as enforcement by a court. The assimilation to contract seems at first glance inapposite; rather, technological management systems look like a species of technological self-help, less like legal enforcement than like sending over a committee of one's friends to intimidate a storekeeper into paying a debt.

On second thought, the buyer's decision to purchase content on the terms enforced by such a system could possibly be construed as contractual. The decision could be understood to mean that the buyer is choosing to use such a system and accepts its consequences. Under the contract-as-product model, the enforcement system is merely a feature of the product, no less than the quality of the content or the length of term for which it is licensed. Yet even under the contract-as-product model, the notion of choice is still present: in order for the buyer to "choose" to purchase the product including the self-enforcement system, the buyer would at least have to know that the enforcement system was in operation and know its possible consequences; other sources of the content without such an enforcement system attached might, depending on the context, also be required for the buyer to be "choosing" to accept such a system. The context to be investigated would include the importance of acquiring the content (for example, is it medical information whose withholding would be life-threatening?) and whether the system is imposed through market power rather than competitive forces. Yet, viewing the transaction from the contract-as-consent model, it looks like a contract in which the buyer cannot purchase the product unless he "agrees" to waive all of his legal enforcement rights in favor of technological self-help at the will of the other party. Even though contracts deviating from the standard picture of autonomous consent are common in the offline world, it is hard to think of any valid contracts in practice in which buyers are held to have entered into such a blanket waiver.

C. Precursors to Viral Contracts

The category of terms that you inherit automatically from a predecessor in interest also resists assimilation to the traditional picture of autonomous consent, at least if those terms are obligations on you. (There is less problem with inheriting benefits.) At minimum, if duties are handed on to successors in interest, in order to choose whether to purchase the product with the obligation attached, one would expect a requirement that the successor take with notice of the duty. Theoretically that gives the buyer the information needed to decide on his price for the package (that is, underlying item with duty attached). A buyer would presumably pay less for a Porsche burdened with a running promise not to go over sixty miles per hour than she would for a Porsche without such an attached obligation.

Section 2-210 of the UCC provides that in a range of cases involving sales of goods, contractual rights can be assigned. However, the situation with delegation of duties is less clear, because delegation can be prevented by agreement, and also by a party who feels justifiably insecure if duties are handed on. Even when delegation of duties is permitted, the delegating party remains liable on the obligation (absent a novation). The question of automatic delegation of duties down a chain of distribution (rather than a single delegation, with knowledge of the other party) has not arisen because normally distributors of tangible goods have not sought to burden

them with running restrictions or obligations.[29] (My example of the Porsche with a speed limit servitude is fanciful.) I believe we have not seen many cases in the offline world having to do with attempts to impose restrictions on tangible objects in the form of duties that must be performed by anyone who purchases the object.[30]

The big exception, of course, is land obligations. The only standard situation in which running obligations can be created in the offline world absent statutory authorization is the use of covenants running with the land and equitable servitudes in structuring real property entitlements. Notice is a bedrock requirement to make these obligations valid. In addition to notice, the common law developed an elaborate set of doctrines limiting the sorts of schemes of this kind that could be enforceable (the obligations must "touch and concern land," for example). The doctrines are notoriously confusing. Generously interpreted, they might be understood to operate collectively to screen out contractual schemes that try to enact in a "private" manner things that would be unconstitutional (if state-sponsored) or anti-competitive. (For example: "whoever owns this house must not rent to non-Caucasians"; "whoever owns this house must buy all groceries at the developer's store.") Obligations that run with land are interestingly similar to standard-form contracts in that they are typically imposed uniformly on groups of owners in a subdivision or condominium; they function as "residential private government."[31] "Private" government has its pluses for community formation, but its minuses when it does things "public" government disallows. In any case, it is not true that a promise can run with the land to impose obligations on successors just because the original parties say so; notice to successors is needed, as well as something more than that to police such schemes for acceptability.

The analogy with land obligations will not permit viral contracts to be enforced against successors to digital objects just because the original promulgator says so. This is true a fortiori in the case of obligations that run not just to the original licensor, but to all others in a distributional community, like those in some open source schemes, because of the unknown extent of the risk. When someone purchases real estate burdened by a running obligation in a subdivision or a condominium, the extent of obligation to others is known, because the number of parcels in the subdivision or units in the condominium is known at the outset. The legal construct

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29. *See, e.g.*, Gary L. Monserud, *The Privileges of Suretyship for Delegating Parties Under UCC Section 2-210 in Light of the New Restatement of Suretyship*, 37 WM. & MARY L. REV. 1307, 1393 (1996) ("In consumer purchases, making a sale subject to a buyer's assumption of a seller's outstanding liabilities to an upstream seller is virtually unheard of.").

30. Warranties are an exception. They usually not only inure to the benefit of holders remote in the distribution chain, but also impose the duty to perform under the warranty on successors of the original distributor. There was debate about imposing liability without contractual privity about the same time there was debate about imposition of tort liability without privity, and both privity requirements fell at the same time. Running obligations, with a notice requirement, are seen in the creation of security interests under Article 9 of the UCC. There the rights of secured creditors that run with the collateral are a very limited set of rights defined by a statutory scheme, not rights that can be created just by a private contract between the creditor and the original debtor. (I owe this example to Dick Craswell.)

31. Uriel Reichman, *Residential Private Governments: An Introductory Survey*, 43 U. CHI. L. REV. 253 (1976).

that buyers from the original developer intend to be obligated to all other parcel-holders, whether or not those parcels have yet been sold, has some reasonable basis. With viral distribution, however, this is not true. Contracts that run with digital objects and attempt to bind recipients to obligations to all other recipients would, if valid, pose an unlimited risk to the user.

IV. PENDING STATUTORY INITIATIVES

In the United States, the European Union, and elsewhere, legislative and regulatory initiatives are pending that are aimed at trying to adapt contract to the online world. Much of the attention has been directed to electronic authentication and digital signatures. In this paper I am leaving aside that issue, however, and will instead focus primarily on the proposed Uniform Computer Information Transactions Act ("UCITA," formerly proposed Article 2B of the UCC), and the proposed Uniform Electronic Transactions Act ("UETA"). Both of these proposed uniform acts were approved by the National Commissioners on Uniform State Laws in July 1999 for presentation to state legislatures.[32] The UETA by its terms applies only to transactions not within the scope of UCITA. The two proposed acts are quite different in their approach to adaptation of the law to facilitate transactions in the online world. To oversimplify, UETA retains the contract-as-consent model and merely aims to remove specific obstacles in the way of contracting electronically; whereas UCITA moves significantly toward the contract-as-product model and aims to change the substantive law in that direction. UETA takes up a few pages; UCITA a few hundred.

A. "Click-Wrap" Validation

A primary impetus for the proposed Article 2B of the UCC was to add information licensing transactions to the UCC in such a way as to validate shrink-wrap licenses. The proposed legislation became extremely controversial, and the American Law Institute failed to approve the Article 2B draft for proposed inclusion in the Uniform Commercial Code, which is how it became a freestanding initiative renamed UCITA. The reasons the Article 2B draft was so controversial make UCITA equally controversial. One reason is its shrink-wrap validation and other expansions of licensors' rights at the expense of licensees. It is also insufficiently attentive to how its language and provisions would interact with the intellectual property schemes. In addition, it threatens to create rather than relieve complexity, in several dimensions. It is long and detailed and attempts to restate substantive law in some respects, and to make new substantive law in other respects; the draftsmanship invites conflicting

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32. *See Uniform Electronic Transactions Act* (visited June 9, 2000) <http://www.law.upenn.edu/bll/ulc/uecicta/eta1299.htm> [hereinafter UETA Draft]; *Uniform Computer Information Transactions Act* (visited June 9, 2000) <http://www.law.upenn.edu/bll/ulc/ucita/ucita200.htm> [hereinafter UCITA Draft]. As this Article goes to press, the UETA has been enacted by California and Pennsylvania. The UCITA has been enacted in Virginia and is pending in Hawaii, Illinois, Maryland, Nebraska, Ohio, Oklahoma, and Utah. The Virginia enactment, which does not go into effect until July 1, 2001, establishes a special advisory group to evaluate impacts and possibly propose amendments. *See* Act of Mar. 14, 2000, ch. 101, 2000 Va. Laws 157.

interpretations. Worse, perhaps, carve-outs for specific industries and exclusions of areas of subject matter mean that many transactions would be subject partly to UCITA and partly to other law.[33]

UCITA is potentially very important legislation. It applies to "computer information transactions."[34] Computer information is "information in electronic form that is obtained from or through the use of a computer or that is in digital or equivalent form capable of being processed by a computer."[35] Computer information transactions include not only licenses, but also any agreement "to create, modify, transfer, or license computer information or informational rights in computer information."[36] And informational rights include "all rights in information created under laws governing patents, copyrights, mask works, trade secrets, trademarks, publicity rights, or any other law that gives a person . . . a right to control . . . information."[37] Since almost everything these days (a book, for example) might be interpreted as being in a form "equivalent" to digital form, the reach of UCITA is potentially breathtaking.

The provisions of UCITA that have the effect of validating most shrink-wrap licenses and the analogous Web contracts involve creation of a new category called "mass-market" transactions. Mass-market transactions are defined as being directed to the general public as a whole under substantially the same terms for the same information. Transactions come within this definition if they are at retail, whether the customer is a business or a consumer. The notion of consent is embodied in—metamorphosed into—a concept of "manifesting assent."[38] Manifestation of assent can include breaking the shrink-wrap, clicking on a link, or commencing to use information.[39]

It certainly seems that UCITA's definition of manifestation of assent stretches the ordinary concept of consent (contested as it was). That stretching starts with the substitution of the word "assent" for the word "consent." In my dictionary, "consent" is one of the meanings of "assent."[40] Nevertheless, "assent" has connotations of acquiescence, of mere failure to remove oneself from a process; "consent," on the other hand, seems surrounded with more connotations of voluntary involvement of oneself in a process. (As I will later discuss, under UCITA even machines can manifest "assent," so at least at that point the notion of voluntariness is absent.) By

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33. *See* Symposium, *Intellectual Property and Contract Law in the Information Age: The Impact of Article 2B of the Uniform Commercial Code on the Future of Transactions in Information and Electronic Commerce*, 13 BERKELEY TECH. L.J. 809 (1998). For an overview, see Pamela Samuelson, Foreword, 13 BERKELEY TECH. L.J. 809 (1998). For specific criticisms aimed primarily at UCITA's preemption of state consumer protection regimes, see Letter from 22 State Attorneys General to National Conference of Commissioners of Uniform State Laws (July 23, 1999), *available in* <http://www.arl.org/info/frn/copy/agoppltr.html> (opposing UCITA).

34. UCITA Draft, *supra* note 32, § 103(a).

35. *Id.* § 102(a)(10).

36. *Id.* § 102(a)(11).

37. *Id.* § 102(a)(38).

38. *Id.* § 112.

39. *See id.* § 112(a)(2), (d) & cmts.

40. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 131 (Merriam-Webster 1993).

substituting "assent," UCITA seems to be validating the take-it-or-leave-it nature of the terms that come with these mass-market transactions. By assimilating such terms to the category of contract, UCITA, insofar as it can be read as doing anything coherent, is drifting toward explicit endorsement of the contract-as-product model.[41]

B. Machine-Made Contracts

1. Electronic Agents

The proposed UCITA attempts a comprehensive, thickly legislated approach to contracting in the information economy. For transactions not covered by UCITA, the proposed Uniform Electronic Transactions Act takes a very different approach, which might be termed thin enablement.[42] It is interesting to compare the approaches to machine-made contracts in these proposed statutes. In particular, what is their approach to defining consent in this context?

Section 5 of UETA provides that the Act "only applies to transactions between parties each of which has agreed to conduct transactions by electronic means."[43] Once such an agreement is found, UETA simply provides that the ensuing transactions will not be invalid merely because machine-made.[44] Thus prior law is left in place. The UETA drafters hope that this approach will prevent the Act from becoming obsolete as technology advances.[45]

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41. *See* UCITA Draft, *supra* note 32, § 112 cmt. 4 ("The described product defines the bargain."). Assent occurs if "objective indicia" allow the inference that a party had reason to know that his act or failure to act "will be viewed by the other party as indicating assent." UCITA Draft Official Comments § 112 cmt. 3(b) (visited June 9, 2000) *available in* <http://www.law.upenn.edu/bll/ulc/ucita/ucitacom300.htm> [hereinafter UCITA Draft Official Comments]. (This puts the burden on the recipient to figure out the other party's propensity to infer things.) Factors showing that "a person has 'reason to know' that the conduct will lead the other party to believe that there was assent" include: "language on a display, package, or that is otherwise made available to the party." *Id.* This seems to say that putting on my site something like "continuing to use this site means that you've agreed to my terms" might work as "manifesting assent" to my terms, especially since another factor in the list is "the fact that the party can decline and return the information, but decides to use it." *Id.* So, it looks like whenever I have access to a site and look at it, I've manifested assent to its terms.

42. *See* UETA Draft, *supra* note 32, § 5(b). The drafters carefully state that UETA "does not make specific reference to usage of trade and other party conduct," and the Act "is not intended to affect the construction of the parties' agreement under the substantive law applicable to a particular transaction. Where that law takes account of usage and conduct in informing the terms of the parties' agreement, the usage or conduct would be relevant as 'other circumstances' included in the definition under this Act." *Id.* § 2 cmt. 1. *See generally* Amelia H. Boss, *Searching for Security in the Law of Electronic Commerce*, 23 NOVA L. REV. 585 (1999) (comparing the approaches of UCITA and UETA).

43. UETA Draft, *supra* note 32, § 5(b).

44. Thus, UETA's core provision is the following: "A contract may not be denied legal effect or enforceability solely because an electronic record was used in its formation." *Id.* § 7(b).

45. *Id.* § 2 cmt. 5. That comment states:

> While this Act proceeds on the paradigm that an electronic agent is capable of

How does UETA contemplate determining whether each party has agreed to conduct transactions electronically? Section 5 provides that such an agreement "is determined from the context and surrounding circumstances, including the parties' conduct."[46] That section also provides a nonwaivable right to back out of conducting any more transactions electronically.[47] How much is left of the traditional picture of autonomous consent? It is clear that the picture is not gone. The drafting committee invoked voluntariness and autonomy: "The paradigm of this Act is two willing parties doing transactions electronically. It is therefore appropriate that the Act is voluntary and preserves the greatest possible party autonomy to refuse electronic transactions."[48]

But the drafting committee proceeded to make clear that its definitions of voluntariness and autonomy did not rise to the level of requiring express agreements.

> If this Act is to serve to facilitate electronic transactions, it must be applicable under circumstances not rising to a full fledged contract to use electronics. While absolute certainty can be accomplished by obtaining an explicit contract before relying on electronic transactions, such an explicit contract should not be necessary before one may feel safe in conducting transactions electronically. Indeed, such a requirement would itself be an unreasonable barrier to electronic commerce . . . .[49]

It is unclear what the committee means by "circumstances not rising to a full fledged contract."[50] Perhaps the committee equates "full fledged contract" with "explicit contract" and "absolute certainty." If so, it is paying homage to a strict version of the traditional picture of contract-as-consent.

In its gloss on section 5(b), the committee said:

> Subsection (b) provides that the Act applies to transactions in which the parties have agreed to conduct the transaction electronically. In this context it is essential that parties' actions and words be broadly construed in determining whether the requisite agreement exists. Accordingly, the Act expressly provides that the party's [sic] agreement is to be found from all circumstances, including the parties' conduct. The critical element is the intent of a party to conduct a

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> performing only within the technical strictures of its preset programming, it is conceivable that, within the useful life of this Act, electronic agents may be created with the ability to act autonomously, and not just automatically. That is, through developments in artificial intelligence, a computer may be able to "learn through experience, modify the instructions in their own programs, and even devise new instructions."

Id. (quoting Tom Allen & Robin Widdison, *Can Computers Make Contracts?*, 9 HARV. J.L. & TECH 25 (1996)). If such developments occur, courts may construe the definition of electronic agent accordingly, in order to recognize such new capabilities.

46. *Id.* § 5(b).

47. "A party that agrees to conduct a transaction by electronic means may refuse to conduct other transactions by electronic means. The right granted by this subsection may not be waived by agreement." *Id.* § 5(c).

48. *Id.* § 5 cmt. 2.

49. *Id.* § 5 cmt. 3.

50. *Id.*

transaction electronically. Once that intent is established, this Act applies.[51]

If intent to conduct a transaction electronically is the critical element, it is unclear how such a finding of intent could fall short of being a finding of full-fledged contract, unless the picture of full-fledged contract here assumed means express communications between the parties. That makes full-fledged contract a very strict version of the traditional picture.

Contrast this with the indicia that count as "manifestation of assent" in UCITA. Instead of asking for intent of both parties, UCITA asks for objective characteristics of reason to know on the part of one party what the other party will infer. UCITA's provisions about electronic agents are similarly difficult to parse, but also seem to move away from the traditional picture of consent. For example, UCITA provides that "[a] person that uses an electronic agent that it has selected for making an authentication, performance, or agreement, including manifestation of assent, is bound by the operations of the electronic agent, even if no individual was aware of or reviewed the agent's operations or the results of the operations."[52] UCITA then goes on to provide that "[a]n electronic agent manifests assent to a record or term if, after having an opportunity to review it, the electronic agent . . . engages in operations that in the circumstances indicate acceptance of the record or term."[53]

In the traditional picture, of course, it would have been impossible to attribute consent to machines, because machines are not autonomous beings. The Kantian category of human agency does not fit the world of machines. It even seems odd to attribute "assent" to machines, because even though assent has connotations of passive acquiescence, it still retains some overtones of an autonomous being that chooses to be passive. The problem is that an electronic agent is not the same kind of agent as a human agent—unless we have left Kantian categories completely behind. UCITA is quite unselfconscious in the way it mixes together terms of human agency and computer agency. UCITA's nonchalance in doing so is evidence that, unlike UETA, it does not retain much from the traditional picture of autonomous consent. What will count as evidence that a computer manifested its assent? "[O]perations manifesting assent may be proved in any manner, including a showing that a procedure existed by which . . . an electronic agent must have engaged in the conduct or operations in order to [obtain, or to proceed with use of the information or informational rights.]" [54]

In the same vein, blindly lumping together persons and machines, UCITA also posits that computers can "infer" that a person is assenting to something. "A person manifests assent . . . if the person . . . after having an opportunity to review the record or term . . . intentionally engages in conduct or makes statements with reason to know that the other party *or its electronic agent* may infer . . . that the person assents . . . ."[55]

I guess this means that if I "intentionally"[56] tap a key that pushes a button that sets

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51. *Id.* § 5 cmt. 4.
52. UCITA Draft, *supra* note 32, § 107(d).
53. *Id.* § 112(b).
54. *Id.* § 112(d).
55. *Id.* § 112(a) (emphasis added).
56. "Intentionally" with respect to what? "Intending" that the key go down? "Intending"

the other party's computer program in motion, I am bound to the other party's terms, provided I had an "opportunity" to see them, whether or not I actually saw them. I guess that when I do something that sets the other party's computer program in motion, in the world of UCITA that computer program is "inferring" something from my acts. Note also that "[a]n interaction of electronic agents creates a contract if the parties use the agents to achieve that type of result and the operations of the electronic agents indicate that a contract exists."[57] Whatever all this means, we are not in the land of traditional consent.

2. Electronic Enforcers

Legal support for trusted systems has been enacted in the form of the provisions of the Digital Millennium Copyright Act aimed at preventing disablement of copy protection and management systems.[58] Under these provisions, circumventing a digital rights management system willfully for commercial gain is a crime, and it may be a crime under certain conditions even to manufacture equipment that can be used to circumvent such a system.[59]

Legislation has not yet regulated the other side of the picture, creating legal limitations on such systems. Nor have the courts yet had the opportunity to do so. A number of commentators believe that legal limitations are needed because these systems can be used permanently to privatize information that the intellectual property regimes place in the public domain, freely available to users.[60] This problem will be especially acute if the use of such systems becomes widespread so that lots of information turns out to be unavailable from other sources that are not self-enforcing.

UCITA proposes some limitations on electronic enforcers. Section 605 provides that "[a] party entitled to enforce a limitation on use of information may include an automatic restraint in the information or a copy of it,"[61] if certain other conditions are met, which I will discuss momentarily. This might mean that no one is entitled to maintain a restraint system on information whose copyright has expired or which has ceased to be a trade secret, or to lock up information otherwise in the public domain—for example by operation of the merger doctrine. If it does mean this, then the section contemplates legal constraints on trusted systems to prevent them from overreaching. It is still unclear how this provision would be enforced; maybe those who receive content protected by such a system are expected to go to court and ask for an injunction to prevent the rights management system from protecting information in which it does not own rights. The other conditions to be met by technological restraints are:

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that the key have some effect on the operations of my computer? "Intending" that they key check a box that appears on my screen?

57. UCITA Draft Official Comments, *supra* note 41, § 206 cmt. 2.

58. 17 U.S.C.A. § 1201 (West Supp. 1999).

59. *See id.*

60. *See, e.g.*, Cohen, *supra* note 15, at 473; Pamela Samuelson, *Intellectual Property and Contract Law for the Information Age: The Impact of Article 2B of the Uniform Commercial Code on the Future of Information and Commerce*, 87 CAL. L. REV. 1, 4 (1999).

61. UCITA Draft, *supra* note 32, § 605(b).

> [A party may use such a restraint] if:
> (1) a term of the agreement authorizes use of the restraint;
> (2) the restraint prevents a use that is inconsistent with the agreement;
> (3) the restraint prevents use after expiration of the stated duration of the contract or a stated number of uses; or
> (4) the restraint prevents use after the contract terminates, other than on expiration of a stated duration or number of uses, and the licensor gives reasonable notice to the licensee before further use is prevented.[62]

Note the "or" which (if read literally) makes this list disjunctive. Therefore, it appears (1) that if an agreement authorizes use of a restraint, the restraint can do anything that agreement provides it can do; and, (2) without any agreement or notice that such a restraint is in operation, the content provider may automatically enforce its own interpretation of the limits on the rights granted to the recipient. (Does it really mean this? Or does it mean that some sort of agreement or at least notice that such a system is in operation is required?) The licensed program can just turn off with no notice (3) when the user reaches the end of what is granted (according to the licensor's interpretation thereof), and subsection (d) of this same section provides that a party using such a restraint system "is not liable for any loss caused by the use."[63] The notice required in section 605(d)(4) seems a small concession to licensees for situations, for example, in which licensor claims the contract has been breached because there has been a dispute over payment.[64] Another concession to licensees in this section involves prohibiting punitive technology systems that destroy your own information if their programmed version of the deal has it that you are exceeding your rights.[65]

C. Viral Contracts

It is clear that UCITA validates the typical restraints on alienation used in the software publishing industry. It is not so clear whether UCITA contemplates running contractual obligations. Section 503, based on section 2-210 of the UCC, provides:

> (1) A party's interest in a contract may be transferred unless the transfer:
> . . . .
> (B) . . . would materially change the duty of the other party, materially increase the burden or risk imposed on the other party, or materially impair the other party's property or its likelihood or expectation of obtaining return performance.
> (2) [A] term prohibiting transfer of a party's interest is enforceable . . . .[66]

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62. *Id.*

63. *Id.* § 605(d).

64. The interaction between this subsection and section 816, entitled "Limitations on Electronic Self-Help," is unclear. Perhaps they are intended as alternatives, although that is not said. Section 816 seems to be a complex elaboration of procedures to follow in the event that licensor wants to turn off the system after declaring a breach. It requires separate manifestation of assent to a term authorizing electronic self-help, and sets out a complex notice procedure to be followed before using self-help. *See id.* § 816.

65. *See id.* § 605(c).

66. *Id.* § 503.

Then section 504 provides:

> (a) A transfer of "the contract" or of "all my rights under the contract", or a transfer in similar general terms, is a transfer of all contractual rights. Whether the transfer is effective is determined under Section 503 and 508(a)(1)(B).
> (b) The following rules apply to a transfer of a party's contractual rights:
> (1) The transferee is subject to all contractual use terms.
> (2) Unless the language or circumstances otherwise indicate, as in a transfer as security, the transfer delegates the duties of the transferor and transfers its rights.
> (3) Acceptance of the transfer is a promise by the transferee to perform the delegated duties. The promise is enforceable by the transferor and any other party to the original contract.
> (4) The transfer does not relieve the transferor of any duty to perform, or of liability for breach of contract, unless the other party to the original contract agrees that the transfer has that effect.[67]

Subsections 504(b)(1) and (b)(3) might be read to contemplate obligations running with the information object. On the other hand, section 504(b)(4) maintains liability of the original transferor (and maybe of transferees who subsequently become transferors?), absent a three-way deal; this is in line with prior law on delegations but inconsistent (maybe) with obligations running with the information object. Also, of course, the effect of section 503(1)(B) might be that chains of distribution would have to be short before it would appear that the original party would no longer feel in control over the rights it retained or the payment it expected to receive. Because section 503(1) talks about a party's "interest in a contract," and section 504(a) talks about transferring "the contract" or "all rights under the contract," it seems that these sections do not contemplate transferring a subset of rights while maintaining a running restriction. Such incomplete transfers may turn out to be important in viral distribution.

V. THE ISSUE OF STANDARD FORM AGREEMENTS

What happens to UCITA in the United States may well be important for global electronic commerce. UCITA would validate most shrink-wrap licenses in the United States, and most of the analogous Web contracts. Indeed, even if UCITA is not enacted, during the next few years courts may begin to cite its provisions and "enact" it themselves. If this becomes the law of the United States, it will at least be important for the rest of the world. It may well end up being ubiquitous in practice for the rest of the world, or even enacted into law. It may, in other words, become a standard. (It also may not, of course. UCITA may not be enacted in the United States, and if it is enacted its terms may not become a global standard. Also, how ubiquitous its particular contractual architecture becomes would depend upon to what extent its own terms are alterable by contract.)

A. Standardized Contracts and Legal Infrastructure

The rules of contract—that is, the structure of the institution of contract—constitute

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67. *Id.* § 504.

a legal infrastructure for commerce. Compare it to technical infrastructure, such as the Secure Socket Layer ("SSL") protocol or the Secure Electronic Transaction ("SET") protocol. By analogy with technical standards, legal "standards"—that is, sets of standardized terms—might reduce the transaction costs of the proliferation of different terms and uncertain enforceability. But standards are two-sided. On the one hand, transactions are much easier if certain sets of terms are understood by all to govern the transaction. On the other hand, the emergence of standards, whether through the market or by legislation, may sometimes be symptomatic of market failure, and is often thought by courts and policymakers to signify oppression rather than efficiency.

One way to get a technical standard is top-down, through promulgation by an authoritative technical body such as the Institute of Electrical and Electronic Engineers ("IEEE"). Similarly, one way to get a legal standard is promulgation by an authoritative legal body, such as a legislature. Another way to get a technical standard is bottom-up, through market emergence, either by industry agreement (such as the industry standards for disk drive format) or by emergence of a dominant format (such as Windows). Similarly, another way to get a legal standard is through industry agreement on a set of terms (such as industry agreement on privacy terms) or by emergence of a dominant set of terms (such as the Windows license). A top-down standard may come about—either in the technical arena or in the legal arena—when industry players want one but cannot agree to it among themselves. Like Hobbesian cooperators, they might be able to coordinate enough to get the standard imposed on them by the authoritative Leviathan, even though in the absence of Leviathan there would be too much incentive for each one to defect.

B. Standardized Contracts and "Adhesion"

Especially from the perspective of public choice theory, it is clear that both top-down and bottom-up standardization—both authoritative enactment and market emergence—can be the result of market failure and can signify rent-seeking. Powerful market actors often get legislation enacted that favors their profits at the expense of society as a whole. Industry agreements are suspect on cartelization grounds. Dominant standards like Windows may be the result of monopolization. Hobbesian coordinators could be coordinating on rent-seeking rather than on reduction of rent-seeking.

On the other hand, either method of achieving standardization could result in efficiency gains. If workable sets of terms can be standardized, whether by market operation or by legislative fiat, efficiency gains might well result: at minimum firms will not have to pay armies of lawyers to think up terms like warranting that all so-called moral rights have been waived, and the expectations of both sellers and buyers will be more solidified. Legislative enactment could indeed represent reduction of rent-seeking, the efficient solution to a coordination problem; but so could private industry agreement. The economic issue—whether a set of uniform terms is efficient or anti-competitive—is indeterminate in the abstract. At least economically speaking, it is necessary to evaluate such standards in their economic context.

Traditionally, however, courts have looked more favorably on standard terms achieved through legislation than on those achieved through industry self-regulation or other market emergence. Courts have regarded legislation as the product of a

democratic process and therefore prima facie in society's best interests. Market-emergent schemes of uniform contracts, on the other hand, have to some courts and commentators looked like a property scheme imposed by private companies for their own interests instead of by the government for the interest of all. In other words, in public choice rhetoric, the traditional view has been that legislative enactment is presumptively efficiency-enhancing, and market emergence is presumptively rent-seeking. Because market-emergent sets of terms are dictated by one party rather than arrived at by negotiation between the parties, they have been dubbed contracts of adhesion, or take-it-or-leave-it contracts. Courts in some circumstances have not considered them effective to create contractual commitment on the part of the takers, and have refused to enforce them.

There is some fuzziness about the definition of a contract of adhesion.[68] Two basic characteristics often mentioned are that they are (1) standard forms that are perceived as (2) being imposed on people. One thing at stake is that these contracts seem suspect on the issue of consent. When one set of terms becomes standard in an industry so that the buyer cannot purchase a product without those terms, it is hard for many observers to consider that the buyer has chosen to be bound by those terms.

Many economic analysts have pointed out that the situation is more complicated.[69] Under the economic contract-as-product view, the terms themselves are a product the consumer is buying, or are part of the package the consumer is buying (product plus terms).[70] If all buyers tend to choose these terms, then the fact that they are ubiquitous means nothing more than that that product has won out in a free market. On the other hand, a number of suboptimal scenarios are possible, such as cartelization, or a "lemons equilibrium"[71] in which consumer lack of information causes an inferior product to become the standard. Deciding whether any given widespread standardized contract represents either market failure or market choice is not any easier than deciding whether any given piece of legislation is rent-seeking or in the public interest. There is no simple principle or algorithm that will do so.[72] Lacking such a principle, courts are likely to conclude that the more the terms seem onerous to the court, the less likely they are to be the result of buyer choice.

C. Standardization vs. Customization

The circumstances of electronic commerce may cause standard forms to emerge. Electronic commerce has the potential to be truly global in scope, not just for large

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68. *See, e.g.*, Todd D. Rakoff, *Contracts of Adhesion: An Essay in Reconstruction*, 96 HARV. L. REV. 1173 (1983).

69. *See, e.g.*, Duncan Kennedy, *Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power*, 41 MD. L. REV. 563 (1982).

70. *See, e.g.*, Lewis A. Kornhauser, *Unconscionability in Standard Forms*, 64 CAL. L. REV. 1151 (1976).

71. George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 490-91 (1970); *see also* Michael Spence, *Consumer Misperceptions, Product Failure, and Producer Liability*, 44 REV. ECON. STUD. 561 (1977).

72. In the face of this difficulty, it often seems that for any given analyst the real criterion for whether something is rent-seeking is whether the analyst finds it ideologically distasteful.

purchases or multinational firms, but for very small purchases by consumers. There is a huge upside potential here, but a strong need for harmonization before it can be realized. Parameters that are sometimes taken for granted in the United States—for example, jurisdiction and choice of law—will need to be spelled out for non-U.S. interactions.[73]

As I mentioned earlier, one reason the world of online commerce may be organized largely by sets of standardized terms is that such terms will work better with machine-made contracts. Various estimates put the volume of business-to-business ("B2B") electronic commerce orders of magnitude greater than business-to-consumer ("B2C") transactions.[74] Possibly because of the significant cost-savings possible through automation,[75] and the competitive pressures that make all adopt cost-saving measures once anyone does, B2B is in the vanguard. So possibly the B2B proportion will decline a bit when technology becomes more user-friendly for consumers and when smaller transactions are facilitated. Nevertheless, B2B will remain a substantial proportion of electronic commerce, and it will make significant use of machine-made contracts.

If the use of machine-made contracts helps drive players to settle on sets of standard terms, there may well be an advantage to using the same terms for people-made contracts as well. Terms that are known and used, whose results have been tested in practice, are likely to proliferate. If sets of machine-friendly terms achieve this status, they are likely to be widely adopted. Adoption of contract terms, like much else on the network, may involve a network externality.[76] Industry learns to work with what is available and known to be enforceable, just as it learns to work with available technology. A feedback loop develops as more and more players become familiar with the terms (and therefore do not want to use different ones) and as more courts or other bodies validate them because they have become prevalent. The standard terms that machines can handle may become ubiquitous.

In spite of these pressures toward standardization, it is important to note that new possibilities for individualization (customization) are also in the air. For a large proportion of consumer transactions in the past, individual negotiation was not cost-effective. That situation is changing. It is (or will soon be) technically feasible for a

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73. *See, e.g.*, John Rothchild, *Protecting the Digital Consumer: The Limits of Cyberspace Utopianism*, 74 IND. L.J. 893 (1999).

74. *See, e.g.*, Sharon Nash, *How Big a B2B Boom*, PC MAGAZINE, Feb. 1, 2000, *available in* <http://www.zdnet.com/pcmag/stories/trends/0,7607,2431179,00.htm>.

75. Various cost savings estimated, but widely thought to be significant. *See, e.g.*, Kenneth Berryman et al., *Current Research: Electronic Commerce: Three Emerging Strategies*, 1998 THE MCKINSEY Q. 152 (between 10 and 20%)

76. *Cf.* Marcel Kahan & Michael Klausner, *Path Dependence in Corporate Contracting: Increasing Returns, Herd Behavior and Cognitive Biases*, 74 WASH. U. L.Q. 347, 350 (1996).

> The attractiveness of a standard contract term arises at least in part from the fact that it can offer increasing returns to users as more firms adopt it. These increasing returns can be divided into two related, but conceptually distinct, types of benefits: (i) 'learning benefits,' which arise because a firm adopts a contract term that has been commonly used in the past; and (ii) 'network benefits,' which arise because a firm adopts a term that will be commonly used in the future.

Id.

website to offer a menu of contractual terms, each with its price. For example, if I do not want litigation to be limited to Los Angeles, I could click in a box and transmit fifty cents more to have the choice of forum be my home state. If I do not like the warranty, for $1.24 I could make it encompass more. In the offline world, a rudimentary form of contractual customization is seen in separate extended warranties for big-ticket items such as cars and electronics. The network will make it possible to do this on a much larger scale and for much smaller transactions. In principle, the whole operation, including the actuarial setting of the prices for such terms, could be outsourced to firms specializing in such matters, and the transaction could be accomplished seamlessly with the consumer's transaction at the offering website.

Such customization, if it comes to pass, will pose various policy problems. Moral hazard comes to mind, since it might be that those who are willing to pay for a better warranty are those who plan to use the product carelessly and cash in on the warranty. Presumably moral hazard could be factored into the actuarial operation of pricing. A more troubling policy question involves what terms will be offered for those who cannot pay for the better ones. The opportunity to purchase better terms may seem to exacerbate distinctions between haves and have-nots. Haves are not only more likely to afford better terms, they are also more likely to have the education and risk-assessment capability to enable them to decide whether purchasing the better terms is worthwhile. Complex arguments could ensue. On one side, it may be argued that onerous terms will allow the product to be offered more cheaply, allowing more poor people to buy it; on the other side, it may be argued that the market will not force such cost savings to be passed on to consumers, and that legislation is needed to set minimal terms. (We have seen these arguments in the offline world on many occasions.[77])

It is too soon to know yet whether we need to have these arguments. Even though customization is technically feasible, it is unclear whether it will appear in the market. For one thing, consumers may not take to it. So far there is not much reason to believe that anyone is reading the fine print. That could change, however, if courts start enforcing it; right now there may be a widespread belief that much of it is unenforceable anyway. For another thing, even if customization is desired by (some) consumers, this effect may be overwhelmed by the pressures toward machine-friendly terms. Of course, various levels of mixture are possible; if customization is valued in the marketplace, some levels of customization capabilities could be built into machines.

In the meantime, the normal pressures of capitalism give industries a powerful incentive to make global electronic commerce work. Especially in the B2B arena, those who do not make it work will be dinosaurs. Right now, though, conflicting national laws and customs and uncertainty over territorial jurisdiction keep truly

77. For example, with regard to the onerous cross-collateral clause in *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445 (D.C. Cir. 1965), or the implied warranty of habitability in residential tenancies, or housing codes, or rent control. *See, e.g.*, Arthur Allen Leff, *Unconscionability and the Code—The Emperor's New Clause*, 115 U. PENN. L. REV. 485 (1967); Bruce Ackerman, *Regulating Slum Housing Markets On Behalf of the Poor: Of Housing Codes, Housing Subsidies and Income Redistribution Policy*, 80 YALE L.J. 1093 (1971); Margaret Jane Radin, *Residential Rent Control*, 15 PHIL. & PUB. AFF. 350 (1986).

global commerce still unrealized. In light of this, there is a strong incentive for industries desiring global commerce to coordinate among themselves, either explicitly or tacitly, to achieve standardized sets of tested terms.[78] It is orders of magnitude less expensive to do this in the online world where everyone can see and download everyone else's terms. The "good" ones will propagate quickly. At the same time, achieving coordination through governmental promulgation of standards is much more difficult because the market is global. What government can act as Leviathan to do the promulgating? How will the coordination be achieved on such a large scale?

For these reasons, firms probably have a better chance of coordinating to achieve standards than territorial sovereigns have of achieving legislative harmonization through diplomacy and trade wars. This means that difficult questions will arise regarding to what extent those sovereigns' rules of law can be contracted around in such standardized sets of terms. The answers will likely depend on whose law governs the decision. If the Disney contract came before a court in France at the instance of a French citizen, the French court might find French rules about moral right to be important enough not to enforce the terms in the contract that select the law of California and Los Angeles as the sole forum.[79] At minimum, a market-emergent set of workable terms will have to avoid using terms like this which will be repugnant in some important market.[80] I suspect that industry may well learn to do this.

The traditional picture of contract still makes many people feel that standard terms

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78. In spite of incentives to standardize, of course, other incentives are still at work that have kept terms nonstandard in the past and might still keep them nonstandard. Some firms are better at giving extensive warranties and other firms are better at selling at low prices. If transaction costs caused by differing terms had been the strongest incentive operating in the offline world in most cases where firm *A* had one set of terms and firm *B* had another, firms would have had a strong incentive to arrive at standard sets of terms, and battles of the forms might have ceased without legislative intervention. I am conjecturing that the incentives may have altered in the networked digital environment, such that the balance may shift in favor of firms' being willing to seek standardization aggressively.

79. *See supra* text accompanying notes 8-9; *cf.* UCITA Draft, *supra* note 32, §§ 109-110. UCITA recognizes the reasonableness of choice-of-forum selection clauses in electronic commerce:

> "[It would] be entirely unreasonable to assume that a cruise passenger would or could negotiate the terms of a forum clause in a routine commercial cruise ticket form. Nevertheless, including a reasonable forum clause in such a form well may be permissible for several reasons. Because it is not unlikely that a mishap in a cruise could subject a cruise line to litigation in several different fora, the line has a special interest in limiting such fora. Moreover, a clause establishing [the forum] has the salutary effect of dispelling confusion as to where suits may be brought . . . . Furthermore, it is likely that passengers purchasing tickets containing a forum clause . . . benefit in the form of reduced fares reflecting the savings that the cruise line enjoys . . . ."

UCITA Draft Official Comments, *supra* note 41, § 110 cmt. 3 (alteration and omissions added) (quoting Carnival Cruise Lines, Inc. v. Shute, 499 U.S. 585, 585-86 (1991)).

80. Even though UCITA is voluminous, it is minimal on the topic of impermissible terms; it just includes a version of the UCC provision on unconscionability. *See* UCITA Draft, *supra* note 32, § 111. A global standard will probably have to be more worked out on this issue.

are unconsented-to. If the world of online contract turns out to be more standardized—or more obviously standardized—than the world of offline contract, the world of online contract will be troubling from the point of view that holds consent requisite for binding obligation to arise. We can expect commentators routinely to point with alarm at "private" legislation through standardized contracts.[81] In the new world, do we need to reconsider consent?

VI. BACK TO THE PUZZLE OF BINDING OBLIGATION

A. The Specter of Ubiquitous Liability Rules

In the traditional picture of contract, a nonconsensual contract is oxymoronic. When entitlements change hands under circumstances interpreted as nonconsensual, we resist the notion that such transactions are contractual. To the extent that online contracts are problematic on the issue of consent, they are problematic as contracts—as long as we remain (at least rhetorically) committed to the traditional picture. The basis of the picture is a liberal commitment to autonomy that does not comport well with forced transactions, even for value received.

To explore the implications for the future of contract online of this entrenched commitment to autonomy, it might be helpful to recur to its past. An influential economic analysis of the '70s, introducing the notion of entitlements protected only by liability rules, proposed that exceptions to the requirement of consent are appropriate in particular kinds of circumstances, provided compensation is paid. For example, a recurring species of real property dispute involves the party who mistakenly becomes a trespasser by building something that encroaches on neighboring land. If the normal property rule is applied, the trespasser will be enjoined to remove the building.[82] In some cases, though, which may make it into the casebooks because they are exceptional, the court decides to let the building stand and simply charge the defendant a reasonable price for the land under it. In other words, plaintiff's normal property rule becomes a liability rule in this particular case. In such a case, I would always ask my students to predict the dissent, and they learned to chorus, "Private eminent domain!" It was a good prediction every time.

Guido Calabresi and A. Douglas Melamed, in the article that introduced the property-rule/liability-rule terminology, theorized that property rules are the norm,

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81. *See, e.g.*, J.H. Reichman & Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. PA. L. REV. 875 (1999); Pamela Samuelson & Kurt Opsahl, *How Tensions Between Intellectual Property Policy and UCITA Are Likely To Be Resolved*, *in* ECOMMERCE: STRATEGIES FOR SUCCESS IN THE DIGITAL ECONOMY 741, 753-54 (Practicing Law Inst. 1999).

82. In a Coasean interpretation of what happens next, this means that the trespasser must buy the portion of the neighboring land that is encroached upon; and economic theory says that plaintiff's price can come close to what defendant would otherwise lose if it had to tear down the building. Students (and some courts) tend to feel that this is extortionate. On the other hand, if defendant need only pay a "reasonable" price to keep the land, defendants like this one will not be deterred from making mistakes of this kind, since at worst they will have to pay only a "reasonable" price, which is what they would have to pay anyway if they were to negotiate ex ante.

and liability rules are literally the exception that proves the rule. The general argument that property rules are best has two parts: the first, to which most of Calabresi and Melamed's attention was devoted, is that property rules are prima facie efficient; and the second, to which they alluded more tentatively, is that property rules are superior from the viewpoint of individual autonomy.[83] The exceptions, where liability rules are better, involve circumstances where property rules will not be efficient, and perhaps circumstances where property rules will not serve distributional goals.

Calabresi and Melamed mainly elaborated one class of circumstances that render property rules inefficient: market failure caused by the high cost of coordination in situations where either buyers or sellers are numerous (the famous freeriders and holdouts). This in fact is what justifies governmental eminent domain.[84] In their discussion of distributional goals, they had in mind situations where we might want the government to facilitate coordination of relatively wealthy buyers to buy out poorer people (better for distributional goals, presumably, than a process whereby the wealthy simply use the legislative process to impose on the poor).[85] The example Calabresi and Malamed used was a factory that employed lots of workers but used polluting cheap coal; they suggested that a legally structured liability rule could enable wealthier folks who desired clean air to compensate the factory and its workers.[86] This argument is controversial. It might suggest, for example, that we should enable neighbors to coordinate to condemn the right of an owner of vacant land to develop low-income housing; or it might suggest that workers should be enabled to condemn and buy out a firm that threatens to relocate its plant.

The argument is controversial, I suppose, precisely because "private eminent domain" is so difficult for us to countenance, at least in theory. Indeed, Calabresi and Melamed, in their dialogue with a hypothetical naïve first-year student about criminal law, explained that it would not do just to charge thieves (or trespassers) damages equal to the value of what they took without the owner's consent, because that would allow them to change property rules into liability rules at will. Hence, an "indefinable kicker" was needed in order to deter such wholesale ability to make property rules lapse into liability rules.[87]

What exactly is wrong with allowing property rules to decay into liability rules more generally, absent the exceptional circumstances described by Calabresi and Melamed? The answer has to be something involving the conception of individual entitlement to which we remain committed. It is a conception that involves an individual being in control of those entitlements for the purpose of advancing her own ends. It is a conception involving noncoercion.

Control over how and when entitlements are divested from oneself seems key to

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83. *See* Calabresi & Melamed, *supra* note 5, at 1106-10. In this view, property rules are better prima facie, because liability rules cause "unascertainable resentment costs" due to coercion (lack of consent), but where there is market failure property rules can cause such resentment costs too and presumably outweigh those coercion costs. *Id.* at 1107-08 n.36.

84. They also mentioned that the costs of establishing a market might in some circumstances outweigh the costs of using liability rules instead of property rules. *See id.*

85. *See id.* at 1115-24.

86. *See id.* at 1121-24.

87. *Id.* at 1124-26.

this embedded conception. From an economic perspective, entitlements enable me to plan my own wealth-maximization strategy, starting with my own subjective valuation of my entitlements, and deploying them as I find most valuable to enhance my position. From a non-economic perspective, entitlements enable me to maintain a stable context of things in my environment, against which I can constitute myself as a person and live my life. If all my entitlements—or even a broad range of them, or even some few important ones—can be divested at any time without my consent, this disrupts the economic function of individual entitlement by ignoring my subjective valuation and the strategies I want to pursue to maximize my wealth in light of that valuation. From a non-economic perspective, such divestments can also almost literally be a "rip-off" of the person.

The non-economic argument does not apply when a firm rather than a person is being divested of entitlements without its consent. And the economic argument might perhaps be somewhat attenuated in that case. Firms might vary less than persons in how they subjectively value their entitlements—their valuations may tend more toward the market price—so their economic plans and strategies for wealth-maximization could be injured less when their property rules decay into liability rules. This statement would be more accurate about some categories of firm assets than others, though. Firms might vary quite a bit, for example, in how they value particular units of human capital; they might vary less in how they value their office equipment.

This interpretation of the background embedded conception of entitlement that lies at the root of our distaste for "private eminent domain" begins—I am only saying "begins"—to suggest that "private eminent domain" directed against businesses firms might not be quite as bad as "private eminent domain" directed against individual consumers. Nongovernmental eminent domain directed against a firm would seem worse if directed against the kinds of assets that firms may not value at some objective "market price." It would also seem worse under circumstances where one firm was always able, because of market power or other reasons, to impose its terms on another, and the other was always in the position of being the one whose entitlements were rearranged by another, and never got to be in the position of doing the rearranging. In other words, "private" eminent domain between firms seems worse under conditions of nonreciprocity.

B. Contract Without Consent

Contract is supposed to be one of the quintessential cornerstones of "private" ordering by means of markets, the other being property. (I have been putting "private" in quotes because I accept the legal realist argument that when the institutions of property and contract take the form of a legal infrastructure, structured and policed by the state, there can be no such thing as a purely "private" ordering.[88]) The gingerly way we approach the notion of property rules decaying into liability rules in the field of property is mirrored by a similar reluctance in the field of entitlements that accrue to actors under contract law. The puzzle of binding

88. *See, e.g.*, BARBARA H. FRIED, ROBERT HALE AND PROGRESSIVE LAW AND ECONOMICS (1997).

commitment is whether we justify party *A*'s rearranging the entitlements of party *B* (or a large number of party *B*'s) on any basis other than consent. The contract-as-product model countenances less voluntary bargaining and more assent to take-it-or-leave-it terms than does the traditional contract-as-consent model. But even the contract-as-product model seems to presuppose that actors "choose" to buy the product-plus-terms. We still recoil from the idea of too-easy decay of property rules into liability rules. Is there a way around this embedded tendency?

Courts rewrite the terms of contracts they find unconscionable, sometimes, rather than merely declaring the contract null and void.[89] When they do this, they are implementing something other than a consented-to bargain. Richard Craswell has shown that the notion of liability rules is useful in certain classes of contracts where courts would consider rewriting the terms. His analysis turns on what to make of lack of consent.[90] In particular, even if the buyer does not consent to the terms, there are cases in which it does not make sense to treat the buyer's entitlement as a property rule—that is, hold that no contract is formed, and unwind the entire transaction. Instead, in certain cases it makes sense to treat the buyer's entitlement as a liability rule—that is, hold that a contract is formed—but on the terms set by the court. In other words, under a liability rule entitlement for buyer, the court would enforce only those terms in the contract that are deemed reasonable, or import some other terms deemed reasonable to replace those written but not consented to.

The reasoning supplying a liability rule applies to a class of cases in which the seller cannot cheaply correct the lack of consent. If it can, the property rule forms an incentive to do so, and that incentive should be retained. But sometimes the seller cannot correct the lack of consent. For example, this reasoning applies to the classic necessity case. Suppose that someone is in such trouble (drowning, let us say) that whoever offers to sell him something that he needs for rescue (a life preserver, let us say) is placing him under duress. This depends upon our understanding of coercion versus voluntariness, of course; you might be willing to call the offer noncoercive if the price is reasonable. But if you go along with the hypothetical and assume the situation is coercive, it would still make more sense to enforce the contract for a reasonable price, rather than holding that no contract is formed. Such enforcement results in decay of buyer's property rule into a liability rule; she gives up her entitlement to her money without her voluntary consent. Otherwise, in situations where they need rescue, buyers could not form contracts and we would presumably be undersupplied with rescue services.[91] The argument ramifies, of course, if we believe that the buyer's economic circumstances sometimes constitute duress.

Another type of case in which the liability rule entitlement for buyer seems to make sense is purchase of something that the buyer needs or wants, accompanied by a lot

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89. *See* U.C.C. § 2-302 (1998); UCITA Draft Official Comments, *supra* note 41, § 111 cmt. 4.

90. *See* Richard Craswell, *Property Rules and Liability Rules in Unconscionability and Related Doctrine*, 60 U. CHI. L. REV. 1 (1993) [hereinafter Craswell, *Property Rules*]; Richard Craswell, *Remedies When Contracts Lack Consent: Autonomy and Institutional Competence*, 33 OSGOODE HALL L.J. 209 (1996) [hereinafter Craswell, *Remedies*].

91. "[I]f the coercion cannot practicably be corrected by the seller, a remedy which denied enforcement to all unconsented obligations would effectively make transacting impossible, thus advancing no one's autonomy." Craswell, *Remedies*, *supra* note 90, at 233.

of fine-print terms whose meaning it would be very costly to point out and explain. In this case, depending on the amount of savings in transaction costs, it could be efficient for a liability rule to enforce the contract, not as written but rather on "reasonable" terms. (Otherwise no one can make a contract without holding a three-day seminar on what the terms mean.) As Craswell recognizes, though, it might be preferable to refuse to substitute reasonable for unreasonable terms in such a contract, in order to deter sellers from using unreasonable terms.[92] Otherwise, sellers could insert unreasonable terms hoping they will only be caught infrequently, knowing that when they are caught they will still have the benefit of "reasonable" terms.[93]

Many of the "click-wrap" contracts in use on the Web these days do not seem to be good candidates for liability-rule enforcement under Craswell's criteria. The procedure by which one is supposed to be held to Disney's terms (continued use of the site, even if one does not see the terms) is problematic on the issue of consent. If the procedure is held to be consent, of course, then there is no problem. It seems that UCITA might deem it to be manifestation of assent, which for UCITA would suffice for consent. But if the procedure is not consent, then it does not seem that it would cost a great deal to get something that looks more like consent—Disney could set up the site so that one could not proceed unless one clicked on the terms, and Disney could also insert a box labeled "I accept" before one could proceed to use the site.

Even if such an "I accept" box is sufficient for some sort of consent, it might not suffice for consent to some particular terms, because they seem both confusing and onerous. Insofar as a term is difficult to explain, such as what it means to warrant that all so-called moral rights have been waived, it is possible that such a term is a candidate for being replaced by a reasonable term under the Craswell analysis. It is also possible that such terms should simply be excised, under the theory that it would be efficient to deter use of such terms.

Craswell identified another consideration that might lead to enforcement of contracts without consent: institutional competence.[94] The argument goes like this: At least from the point of view of economic analysis, if it would be too hard for a court to come up with reasonable terms, it should not try; even where consent is lacking, the court should enforce the terms as written. For example, price regulation is difficult, so we can assume that it would be difficult for a court to come up with a reasonable price to replace what is seen as a monopoly price. Rewriting warranties and other nonprice terms is equally difficult. For the economist, of course, the inquiry is comparative: the question is whether the difficulty encountered in arriving at the court-enforced price would make that price deviate even more than the contract price from an ideal competitive market price.

The suggestion Craswell is making here is a species of non-ideal theory. He is advancing a risk-of-error rule.[95] That rule is: If our estimates of institutional competence tell us that a systemic admonition for courts to substitute reasonable

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92. *See id.* at 16-17.

93. *See id.* at 16. This case is analogous to the builder who trespasses on neighboring land. *See supra* note 82.

94. *See* Craswell, *Remedies*, *supra* note 90, at 221-29.

95. *See* Margaret Jane Radin, *Risk-of-Error Rules and Non-Ideal Justification*, in JUSTIFICATION 33, 34 (J. Roland Pennock & John W. Chapman eds., 1986) (Nomos XXVIII).

terms for unreasonable ones will come out worse, on balance, than a systemic admonition for courts to let unconsented-to contracts (but only of the type where the seller cannot readily correct the coercion) be enforced as written, then we should let the suspect contracts be enforced as written. In a more nearly ideal world, enforcement is contrary to the value of individual autonomy. Yet autonomy in our non-ideal world—however threatened it may be by such contracts—might be still more undermined by having courts intervene. This could happen, for example, if court intervention on balance caused a rise in prices for essential products, so that some consumers are priced out of the market for them and cannot obtain them at all.

Like all non-ideal arguments, this one has difficulties. One is that someone must decide whether courts are "institutionally competent" to replace unreasonable terms with reasonable ones. That someone might be the court if it is asked to intervene in one of these suspect contracts; or the legislature if it is asked to validate a class of them, as UCITA would.[96] We might believe that some courts will do better than some parties some of the time. But maybe courts are not the best decisionmakers to evaluate themselves. On the other hand, we might believe that legislation is often put forward as rent-seeking on the part of some industry, as many observers believe is the case for UCITA and the software publishers. At least we might believe that it is very hard to tell when legislation is rent-seeking and when it is not, and that the legislature itself is not the best actor to be trusted with making this pronouncement.

Another difficulty is that the case-by-case method of adjudication makes it very difficult for a judge to adhere to the systemic risk-of-error rule when she sees before her a case that looks like egregious oppression.[97] Thus, a rule like this is difficult to maintain; it tends to decay into case-by-case consideration. If such a rule derives from legislation, exceptions and reinterpretations will build up; if it derives from judge-made law, prior cases will be distinguished. This is a non-ideal analysis of the functioning of rules. It bears on the use of rules in coping with other non-ideal features of the world such as the limits of institutional competence.

Maybe the worst difficulty is the following. When considering non-ideal arguments about preservation of some value—autonomy in this instance—we often run into a double bind. Ex hypothesi, autonomy is threatened by enforcement of unconsented-to obligations. But, as Craswell and others argue, autonomy is also threatened if none of these is ever enforced, because then those for whom consent is questionable (for example, those under economic duress) cannot enter enforceable contracts to buy what they want and need.[98] Craswell wants us to see that autonomy may also be threatened if courts try to save unconsented-to contracts from being unenforceable

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96. In his conclusion, Craswell seems to postpone this question: "[A]ny analysis of the proper remedy in cases where consent is lacking must pay some attention to questions of institutional competence. In particular, if courts are to strike down contracts whose terms are substantively unreasonable, while allowing enforcement of reasonable obligations, their ability to distinguish reasonable from unreasonable obligations must be considered." Craswell, *Remedies*, *supra* note 90, at 235. Considered by whom?

97. *See* Margaret Jane Radin, *Presumptive Positivism in Trivial Cases*, 14 HARV. J.L. & PUB. POL'Y 823 (1991).

98. *See* Leff, *supra* note 1, at 155-57; Alan Schwartz, *A Reexamination of Nonsubstantive Unconscionability*, 63 VA. L. REV. 1053, 1071-73 (1977).

by rewriting terms to make them reasonable, but turn out not to be good at this task.[99] The question becomes which alternative is best (or least worst) for autonomy. This kind of question does not seem readily answerable in the abstract. (It is the kind of question that made me a philosophical pragmatist.)

When we are at work on this kind of question we should notice that it matters to what extent the world of exchange consists of these contracts that are suspect on autonomy grounds. If people right and left are having their entitlements rearranged by other private parties without their consent, that is a different social world, and a different setting for valuing and trying to protect autonomy, than if such occurrences are relatively rare. But which way does the difference cut? Perhaps such an occurrence damages my autonomy more if it happens to me out of the blue, singling me out so to speak, than if it happens to everyone all the time. On the other hand, perhaps the more such occurrences there are, the more endangered autonomy is—or the more we feel it to be endangered, which in this context amounts to much the same thing. The efficiency theorist might say that in that case demoralization costs are rising exponentially.

The term demoralization costs, of course, was introduced by Frank Michelman in an influential analysis about takings of private property by the government.[100] In that analysis Michelman argued that demoralization costs would be higher when individuals or specific groups were singled out to bear a substantial unexpected diminution of the value of their entitlements, and lower when the diminution fell on a larger and more disparate group.[101] In the case of takings by government, though, we normally rely on a background political theory that supposes that the government is using its money to benefit society as a whole. Indeed, that theory must be a prominent reason that "public" eminent domain is not as disfavored as "private" eminent domain. When we believe society as a whole is benefitted, and the costs are spread widely, this political theory would hold that lack of individual consent to a particular rearrangement of entitlements is replaced by the consent of the governed to bear rearrangements of that kind.[102]

To the extent we accept this background political theory, then, autonomy is not threatened but rather instantiated or fostered when individuals bear widely spread costs that are necessary for the existence of the government that supports their autonomy as citizens. Again, to the extent we accept such a background political theory, lack of consent by private parties to bear rearrangement of their entitlements at the hands of other private parties can never blend into consent of the governed if the rearrangements are systematic enough. It seems, then, that as long as we accept such a background political theory, demoralization will rise the more prevalent such unconsented-to rearrangements become.

Of course, the background social theory I am talking about, a sort of ordinary-discourse social contractarianism, places great emphasis on the public/private

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99. *See* Craswell, *Remedies*, *supra* note 90, at 232.

100. *See* Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165 (1967).

101. *See id.* at 1229-34.

102. *See, e.g.*, Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 417 (1922) (Brandeis, J., dissenting).

distinction. It assumes that the government acts in the public interest. I do not need to recapitulate here all the critiques from the right and the left, including some of my own, that undermine the public/private distinction. When all the undermining is done, though, where are we? Have we reached a point where we can consider the social benefit of systems of unconsented-to contracts imposed by private parties in the very same way we consider the social benefit of statutory provisions imposed by a legislature?

If we have not—except perhaps for the vanguard of economic analysts—then if unconsented-to contracts fill the contractual space, and, most important, we perceive them to be doing so, autonomy will be threatened. Tentatively, I suggest that the emerging forms of online contracts I have described in this Article may make it hard for people to avoid seeing that commercial life now consists largely of obligations being imposed on people without consent.

Another way to look at this situation, of course, is that we can give up consent, or at least redefine it. UCITA seems to redefine consent. Some people now believe that Microsoft, Disney, AT&T, AOL, and others, when they act to maximize profits, are acting in the best interest of everyone, or at least are not any worse in that regard than our governments. I suppose such a belief could engender a widespread trust in business entities to rearrange our entitlements without our consent. (But this belief that what is good for corporate profit is good for America is a very old one—we would have to ask why it has not yet accomplished a general decay of property rules into liability rules.) At any rate, if we wanted to, we could conceive of such trust as constituting implied consent vis-à-vis private firms that promulgate terms that bind us, rather analogous to the old picture of consent of the governed vis-à-vis public actions that devalue our entitlements. In doing this we would finally be giving up on the public/private distinction.

I am just being playful here. (I think.) But note that this scenario has the interesting result that firms that have terms imposed on them by other firms might protest more loudly than consumers. Even if consumers trust firms—as much as or more than government—to impose obligations on them absent their consent, the level of trust might be lower between firms that always find themselves in the buyer position vis-à-vis a dominant firm that is always a seller. Indeed, firms that often find themselves in the licensee position are the ones that finally raised a ruckus about the licensor-friendly UCITA.

CONCLUSION

The advent of online contracts at least will make us realize that there is a disjunction between transactional practice and the traditional picture of contract-as-consent. The transparency of Web contracts lets us see more of the terms that come with access to information products. Although customization is technologically possible on the Web as never before, nevertheless machine-made contract and the global scope of electronic commerce may result in more standardization and even less room for old-fashioned bargaining. What will happen to the liberal ideal of requiring consent before parting with one's entitlements?

Even before the digital era, the traditional model of contract-as-consent has become attenuated in practice. Most run-of-the-mill transactions are governed by terms that receiving parties cannot read or do not care to read, perhaps because their time would

not be efficiently spent reading them. Contractual terms have come to be considered, at least by economists, as part of the product, a package deal, rather than something separate. The choice to buy the product blends into the "choice" to "assent to" the terms it comes with. The attenuation of consent in online contracts is thus not a radical shift, but rather further evolution along these lines.

That being so, should we insist on maintaining the liberal ideal of consent? If so, could we make it bear on practice rather than maintaining it merely in rhetoric? If the future of contract makes it ever more clear that the only point of choice is whether or not to buy the product-plus-terms, we could focus our attention on making that choice really a choice. One thing necessary for real choice is to make sure that a competing array of products-plus-terms is available in the market. That may be hard to do in the face of network economics, and in the absence of global implementation of competition policy. At least it seems fair to say that technological self-enforcement systems should be scrutinized from the point of view of competition policy when they lock up information under onerous terms and the information is not available elsewhere under other terms. (Because we are dealing with information and not with widgets, they should be scrutinized as well from the point of view of freedom of expression policy, but that is a topic for another article.)

This market prophylaxis is not really a solution to the problem of consent, however. In order for it to be a solution, we would need to fulfill a background condition that products-plus-terms be adequately disclosed to buyers, so that the choice whether or not to buy will count as an autonomous choice. (What makes disclosure adequate? Whatever is needed to make choice autonomous—a deep question not amenable to a simple answer.) But this is the background condition that modern commerce cannot often fulfill. Even if purveyors of products-plus-terms tell the truth about them, even if all the fine print is on the website for all to peruse and download if they wish, it is not efficient or even possible for buyers to take the time to understand all this information. The supposed exceptional case for liability-rule treatment may become the unexceptional run-of-the-mill case.

If that is the case, the only ameliorative avenue I can see is for policymakers to take on the task of deciding which terms it is important to draw buyers' attention to in order to preserve their autonomy, and which kinds of terms must be simply excluded on autonomy grounds. Redress limited to Los Angeles could be in the first category; waiver of all personal privacy rights could be in the second. About these things there will be many debates, but we should start having them, rather than thinking they can be avoided. For a new generation, and in far greater detail, we will need to follow in the footsteps of the kinds of rules that told us what had to be made conspicuous, or separately explicitly agreed to, and what could not be included at all. Who will be the policymakers making these decisions? We do not know yet—perhaps new forms of international and public/private cooperation will emerge to tackle the problem. All I am saying right now is that the problem should be on everyone's radar screen.

Postscript: Even though I have suggested that "regulation" can take place through new kinds of coalitions and is not solely a matter for a legislature or a court, I have ended up arguing for "regulation" in an era in which anything called regulation is deeply mistrusted. So let me just mention my final realist caveat. Those who want to eschew "regulation" are nevertheless always in favor of interventions to correct market failure, protect parties from force and fraud, enforce legitimate agreements and expectations, and otherwise provide the needed infrastructure without which a

market cannot function. In any given roomful of entrepreneurs, though they all detest "regulation," it always turns out that one person's regulation is another person's free-market hygiene. I hope that ideological labels will not prevent us from working constructively on the future of consent in the contractual infrastructure of electronic commerce.