Will Increased Disclosure Help? Evaluating the Recommendations of the ALI's "Principles of the Law of Software Contracts"

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The aim of the American Law Institute's new Principles of the Law of Software Contracts is to improve online contracting practices. Instead of regulating terms directly to reduce the possibility of unfair or biased terms, the Principles emphasize increased contract disclosure to encourage readership and comparison shopping. In this Article, I test whether increasing disclosure in the proposed manner is likely to increase readership in the setting of end user license agreements (EULAs) of software sold online. I follow the clickstreams of 47,399 households to 81 Internet software retailers and find that EULAs are approximately 0.36 percent more likely to be viewed when they are presented as clickwraps that explicitly require assent, as suggested by the Principles, than when they are presented as browsewraps. The results indicate that mandating disclosure will not by itself change readership or contracting practices to a meaningful degree. I briefly review other approaches to reform that may be more effective but come with their own limitations.

> *Perhaps the most serious problem that deters reading in the software retail context, singled out by many commentators and highlighted in litigation, is the manner of presenting terms.*[1]

INTRODUCTION

The end user license agreements (EULAs) that attach to most software products are controversial contracts. On the one hand, EULAs allow software publishers to allocate rights and obligations associated with their products and educate consumers about intellectual property rights.[2] But others are concerned that transferors' widespread use of shrinkwraps, licenses that can be seen only after a user purchases the product, or browsewraps, licenses presented via hyperlinks at the

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1 ALI, *Principles of the Law: Software Contracts* 113 (2010) ("ALI Principles").

2 See Robert W. Gomulkiewicz and Mary L. Williamson, *A Brief Defense of Mass Market Software License Agreements*, 22 Rutgers Computer & Tech L J 335, 341–61 (1996); Robert W. Gomulkiewicz, *Getting Serious about User-Friendly Mass Market Licensing for Software*, 12 Geo Mason L Rev 687, 694–95 (2004).

bottom of transferors' web sites, may not effectively put transferees on notice of the terms.[3] This lack of consumer awareness, some fear, allows sellers to offer unfair terms that contractually extend intellectual protections beyond those afforded by federal intellectual property laws, for example, and that limit liability for product failure.[4]

Not surprisingly, given these disparate viewpoints, there is currently no clear set of rules to govern software licenses. This uncertainty is costly to both sellers and buyers. Addressing conflicting court decisions and harmonizing the law of software contracts has proved no easy task, however. Previous efforts such as Article 2B of the Uniform Commercial Code (UCC) failed to obtain the approval of the American Law Institute (ALI), and the Uniform Communications Information Transactions Act (UCITA) was adopted only in Maryland and Virginia.[5] These efforts were strongly opposed by many academics and consumer advocates due to a belief that the draft rules did not sufficiently protect consumers.

The ALI has recently proposed a new approach in its Principles of the Law of Software Contracts.[6] Unlike its predecessors, the drafters of the Principles start from an explicit assumption that current market forces alone are too weak to ensure that sellers offer terms they consider fair to buyers. At least anecdotally, this assumption seems reasonable in the mass-market retail context. When too few buyers are sensitive to standard terms (that is, they fail to read them, understand them, or care about them), there is no "informed minority" of comparison shoppers that will induce sellers to internalize buyers' preferences.[7] To the extent that sellers are not otherwise constrained by reputation or effective regulation, offering unfavorable terms may be profit maximizing.

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3 See, for example, Richard H. Stern, *Shrink-Wrap Licenses of Mass Marketed Software: Enforceable Contracts or Whistling in the Dark?*, 11 Rutgers Computer & Tech L J 51, 55–56 (1985) (describing the idea of finding consent based on opening a package, as is done with shrinkwrap licenses, as "unsettling" though likely the result of business realities); Batya Goodman, Note, *Honey, I Shrink-Wrapped the Consumer: The Shrink-Wrap Agreement as an Adhesion Contract*, 21 Cardozo L Rev 319, 356–57 (1999) (arguing that shrinkwrap licenses should be treated as adhesion contracts partially because many customers are unaware of the terms at the time of purchase).

4 See, for example, J. Thomas Warlick IV, *A Wolf in Sheep's Clothing? Information Licensing and De Facto Copyright Legislation in UCC 2B*, 45 J Copyright Socy USA 158, 163–67 (1997).

5 See Michael Seringhaus, *E-book Transactions: Amazon "Kindles" the Copy Ownership Debate*, 12 Yale J L & Tech 147, 164–65 (2009).

6 See generally *ALI Principles* (cited in note 1). For a more extensive discussion and defense of the ALI's disclosure-focused approach in *Software Contracts*, see generally Robert A. Hillman and Maureen O'Rourke, *Defending Disclosure in Software Licensing*, 78 U Chi L Rev 95 (2011).

7 See Alan Schwartz and Louis L. Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U Pa L Rev 630, 649–51 (1979).

The Principles' drafters emphasize the regulation of disclosure rather than the regulation of terms.[8] They anticipate that disclosure will promote the emergence of an informed minority,[9] and it avoids the intrusive and controversial nature of direct regulation of terms. In particular, § 2.02, a provision providing safeguards for mass retail transactions, includes a set of best practices for disclosure that ensures enforcement of a seller's terms. To create a presumption of enforceability, one provision asks that software vendors, both online and brick-and-mortar, post their license agreements in a "reasonably accessible" manner on the corporate website, regardless of whether they sell software through that website.[10] The Principles ask that terms be conspicuously available via hyperlink before purchase "so that a transferee cannot help but become aware of the terms."[11] Finally, sellers who sell their software via their corporate websites are asked to use clickwraps, which require buyers to click on "I agree" next to a scroll box with the text of the license.[12] If effective, this approach to correcting market failure would seem superior to direct regulation.

If contract readership remains relatively unaffected by increased disclosure, however, promoting increased disclosure would be ineffective and could even introduce new costs and inefficiencies. Courts might be led to believe mistakenly that terms are the product of well-working market mechanisms and be more lenient in policing abusive terms.[13] Alternatively, disclosure in the form of clickwraps might be costly to sellers if the additional steps in the checkout process cause some shoppers to lose patience.[14] Finally, these recommendations could generate costly changes to current software seller disclosure practices, because most contracts currently offered are either "pay

8 The Principles also include some mandatory terms, such as a nondisclaimable implied warranty of no known material hidden defects. See *ALI Principles* § 3.05(b) at 193 (cited in note 1). See also Hillman and O'Rourke, 78 U Chi L Rev at 95–96 (cited in note 6).

9 See *ALI Principles* § 2.02, comment c at 126–30 (cited in note 1). See also Hillman and O'Rourke, 78 U Chi L Rev at 100 (cited in note 6).

10 *ALI Principles* § 2.02(c)(1) at 126–28 (cited in note 1).

11 *ALI Principles* § 2.02, comment c at 128 (cited in note 1).

12 *ALI Principles* § 2.02, comment c at 129 (cited in note 1) (discussing the need for an action of acceptance, such as clicking an icon, to make an online transaction enforceable).

13 See Robert A. Hillman, *Online Boilerplate: Would Mandatory Website Disclosure of E–standard Terms Backfire?*, 104 Mich L Rev 837, 853–55 (2006); Omri Ben-Shahar, *The Myth of the "Opportunity to Read" in Contract Law*, 5 Eur Rev Cont L 1, 13–21 (2009); Omri Ben-Shahar and Carl E. Schneider, *The Failure of Mandated Disclosure* *57–62 (University of Chicago John M. Olin Law and Economics Working Paper No 516, Mar 2010), online at http://ssrn.com/abstract=1567284 (visited Oct 20, 2010).

14 See Ronald J. Mann and Travis Siebeneicher, *Just One Click: The Reality of Internet Retail Contracting*, 108 Colum L Rev 984, 998–1001 (2008).

now, terms later" contracts (PNTLs) or browsewraps that users must explore the website to find.[15]

In this Article, I test the central presumption of the ALI's approach, namely that increased EULA disclosure will indeed lead to increased readership. The current analysis, which concentrates on the method of disclosure encouraged by the Principles, is drawn from a more general study of the effectiveness of alternative disclosure techniques.[16] I used clickstream data to track the visits of 47,399 households to the websites of eighty-one software retailers over a period of one month. For each household in the panel, I tracked the exact sequence of page visits (URLs) to each software website, such as visits to product pages, checkout pages, and pages that correspond to EULAs. I also noted the time spent on each URL. For each software retailer in the sample, I recorded whether the EULA was presented as a clickwrap ("I agree") or a browsewrap.

The main finding is that an increase in contract accessibility does not result in an economically significant increase in readership. Mandating assent by *requiring* consumers to agree to terms by clicking on an "I agree" box next to the terms increases contract readership by at best on the order of 1 percent. Averaging across six different estimates of shoppers' readership rates, I estimate that clickwraps are read only 0.36 percent more often than browsewraps, and the overall average rate of readership of EULAs is on the order of 0.1 percent to 1 percent. This low average rate of readership is conservative in that I assume that all shoppers who access a EULA page for at least one second can be said to have read it, despite the fact that the average EULA is 2,300 words long and written in complex language.[17]

An increase in the shopper readership rate of 0.36 percent, from a base rate of 1 percent or less, will not create an informed minority of comparison shoppers. The clearest policy implication is that increased disclosure is no panacea. Disclosure is but a necessary condition for readership. It appears that the cost of *accessing* the contract is not the issue; rather it is the expected benefit from *reading* it.

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15 Florencia Marotta-Wurgler, *Are "Pay Now, Terms Later" Contracts Worse for Buyers? Evidence from Software License Agreements*, 38 J Legal Stud 309, 321–23 & table 1 (2009) (finding that in a sample of 515 EULAs, 52.2 percent were PNTLs).

16 See generally Florencia Marotta-Wurgler, *Does Disclosure Matter?* (NYU Center for Law, Economics and Organization Working Paper No 10-54, Nov 2010), online at http://ssrn.com/abstract=1713860 (visited Dec 21, 2010).

17 See Yannis Bakos, Florencia Marotta-Wurgler, and David R. Trossen, *Does Anyone Read the Fine Print? Testing a Law and Economics Approach to Standard Form Contracts* *26 (NYU Center for Law, Economics and Organization Working Paper No 09-40, Oct 2009), online at http://ssrn.com/abstract=1443256 (visited Oct 22, 2010) (finding the average word count of 240 EULAs to be 2,277 words with a standard deviation of 1,148 words).

Policymakers need to focus much more on changing consumers' expectations about the net benefits of becoming informed. Shoppers who know that the EULA exists but choose not to read it might do so because they expect that contracts are too long and hard to understand, too unlikely to become relevant in their use of the product, or in any case address issues that are less important than product characteristics such as price and function. Options available to policymakers thus include reducing contract length, simplifying and standardizing language, and developing ratings that would convey the essence of terms with minimal effort.[18] These changes might induce consumers to become informed and comparison shop for products with more favorable terms. Direct regulation also remains an option of last resort, but one that needs to remain on the table despite the Principles' drafters' understandable apprehension. Realistically, even a suite of well-designed changes to disclosure and presentation methods may be insufficient to raise readership by the one to two orders of magnitude needed to reach a rate that could plausibly support an informed minority equilibrium.

Furthermore, recent research suggests that the drafters' implicit fear that firms that use PNTLs or shrinkwraps will take advantage of delayed disclosure by offering particularly one-sided terms is misguided. A study of the terms offered by 515 software retailers who sell their software online found that PNTL contracts were in no regard more one-sided than those of sellers that disclosed their contracts prior to purchase as browsewraps *or* clickwraps.[19] If there is fear that sellers are using poor disclosure to sneak in unusually unfavorable terms, it is a fear that is currently not justified. Still, for the aforementioned reasons, the effect of disclosure on EULA readership is an important general question that needs to be addressed.

Part I of this Article provides an overview of the perceived problems with EULAs and the Principles' approach to alleviating them. Part II describes the methodology. Part III describes the main results. Part IV discusses implications.

I. DISCLOSURE AS THE PRINCIPLES' MAIN APPROACH TO PREVENTING MARKET FAILURE

The law governing software transactions is in disarray. During the past two decades, courts have struggled with the contract and intellectual property law issues presented by this new technology. In the absence of clear rules on the subject, courts have disagreed on a variety of

18 For a detailed discussion of the policy implications of these findings, see Part IV.

19 See Marotta-Wurgler, 38 J Legal Stud at 333–37 & table 4 (cited in note 15).

subjects, ranging from whether software should be classified as a good under Article 2 of the UCC[20] to whether software publishers can use EULAs to extend protections granted by intellectual property laws.[21] One of the most contentious issues has been whether terms presented after payment, generally in the form of shrinkwraps or PNTLs, where buyers cannot see the terms of the contract until after purchase, should become part of the agreement between the parties.[22] Similarly, courts have struggled with whether browsewraps, in which sellers present their terms via hyperlinks at the bottom of their corporate web pages, present sufficient notice and "opportunity to read" before requiring a manifestation of assent.[23] The conflicting case law that emerged as a result of this has generated much uncertainty and has increased the cost of doing business for both buyers and sellers alike.

As noted earlier, despite multiple attempts to harmonize the law of software contracts, most proposals were unsuccessful. Article 2B of the UCC failed to obtain the support of the ALI, mostly because it was perceived as being too seller friendly.[24] The proposed law then became the UCITA, which was enacted only in Maryland and Virginia and was met with harsh criticism. One of the most serious objections to UCITA was that it embraces the enforcement of shrinkwraps and PNTLs. Critics fear that sellers will take advantage of delayed disclosure to include self-serving terms.[25]

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20 See *Micro Data Base Systems, Inc v Dharma Systems, Inc*, 148 F3d 649, 654 (7th Cir 1998); *Advent Systems Ltd v Unisys Corp*, 925 F2d 670, 675–76 (3d Cir 1991). See also UCC § 2-105 (defining "goods" as "all things . . . which are movable at the time of identification to the contract of sale").

21 See, for example, *ProCD, Inc v Zeidenberg*, 86 F3d 1447, 1453–55 (7th Cir 1996); *Softman Products Co v Adobe Systems Inc*, 171 F Supp 2d 1075, 1089 (CD Cal 2001).

22 Compare *Step-Saver Data Systems, Inc v Wyse Technology*, 939 F2d 91, 98–105 (3d Cir 1991); *Arizona Retail Systems, Inc v Software Link, Inc*, 831 F Supp 759, 764–66 (D Ariz 1993), with *M.A. Mortenson Co v Timberline Software Corp*, 998 P2d 305, 313 (Wash 2000).

23 See Ben-Shahar, 5 Eur Rev Cont L at 9–12 (cited in note 13) (describing and challenging court decisions and academic arguments that browsewrap licenses are not binding because of a lack of consent).

24 See Jessica Litman, *The Tales That Article 2B Tells*, 13 Berkeley Tech L J 931, 939 (1998). See also Consumer Project on Technology, *Protest Page on Uniform Commercial Code Article 2B*, online at http://www.cptech.org/ucc/ (visited Oct 22, 2010) (giving an overview of Article 2B and compiling unfavorable literature).

25 See, for example, Jean Braucher, *The Failed Promise of the UCITA Mass-Market Concept and Its Lessons for Policing of Standard Form Contracts*, 7 Lewis & Clark J Small & Emerging Bus L 393, 396 (2003); Jean Braucher, *Delayed Disclosure in Consumer E-commerce as an Unfair and Deceptive Practice*, 46 Wayne L Rev 1805, 1841–42 (2000); Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 Cal L Rev 111, 122 (1999); Americans for Fair Electronic Commerce Transactions, *Why We Opposed UCITA*, online at http://www.ucita.com/why.html (visited Oct 22, 2010) (citing the seller-friendly implications of the law). But see Marotta-Wurgler, 38 J Legal Stud at 333 (cited in note 15) (presenting evidence showing that PNTLs include no less consumer friendly terms). More recently, critics have focused on proposed amendments to Article 2 of the UCC, which explicitly exclude information goods from

In May 2009, the ALI approved the Principles of the Law of Software Contracts. One of the Principles' biggest deviations from UCITA regards contract formation. The Principles reject delayed or nonconspicuous contract disclosure as an acceptable contract formation mechanism due to a belief that this might contribute to low contract readership and prevent the creation of an informed minority of shoppers.[26] Recent research has shown that this concern is indeed legitimate. In a recent large-sample study examining the online shopping behavior of consumers to sixty-six software companies, Yannis Bakos, David R. Trossen, and I found that that only about 1 in 1,000 shoppers chose to read the fine print and that this number was insufficient to constitute an informed minority.[27]

To address this problem, the drafters embraced a regime that focuses on disclosure.[28] The hope is that increased disclosure will help create an informed minority of consumers as well as make it easier for watchdog groups to access terms and spread the word about unsavory provisions. Sellers who wish to maintain their reputations and level of sales will thus respond to increased scrutiny by offering more desirable terms.[29] The relevant provision is § 2.02, which provides safeguards for mass-market retail transactions by outlining a series of seller "best practices" with respect to disclosure that, if followed, ensure enforcement of a seller's terms.

Specifically, the Principles ask that software vendors, both online and brick-and-mortar, post the terms of their license agreements in a "reasonably accessible" manner on their websites.[30] To comply with this provision, sellers who offer physical copies of software and shrinkwrap their EULAs must establish an online presence.[31]

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its scope. The fear is that courts currently relying on Article 2 of the UCC to address software licensing issues will turn to UCITA for guidance.

26 See *ALI Principles* at 112–16 (cited in note 1) (determining that market forces were not enough to prevent "unsavory terms," partially because current licensing practices inform an insufficient number of consumers). Consider also Robert A. Hillman, *Online Consumer Standard Form Contracting Practices: A Survey and Discussion of Legal Implications*, in Jane K. Winn, ed, *Consumer Protection in the Age of the "Information Economy"* 283, 291–92 (Ashgate 2006).

27 See Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *36–37 (cited in note 17).

28 See *ALI Principles* § 2.02, comment e at 131–32 (cited in note 1).

29 *ALI Principles* § 2.02, comment e at 131–32 (cited in note 1).

30 *ALI Principles* § 2.02(c)(1) at 121 (cited in note 1) ("A transferee will be deemed to have adopted a standard form as a contract if the standard form is reasonably accessible electronically prior to the initiation of the transfer at issue."). The comments state that "transferors should adopt the best practices of subsection (c) to ensure enforcement of the form." *ALI Principles* § 2.02, comment b at 124 (cited in note 1). Even terms that comply with § 2.02(c)(1), however, would be subject to a claim that the terms are unconscionable or against public policy. See *ALI Principles* § 2.02, comment b at 124 (cited in note 1).

31 See *ALI Principles* § 2.02, comment c at 127–28 (cited in note 1). The Principles ask that notice and availability of terms be conspicuously available via a hyperlink before purchase and

While these new rules will certainly affect the business practices of brick-and-mortar retailers, it is e-commerce practices that will be most affected. Subsection 2.02(c)(3) prescribes that sellers who sell their software through their corporate websites must use clickwraps.[32] Specifically, to be enforceable, buyers must click on an "I agree" icon next to a scroll box containing the text of the license. The drafters note that "[t]his form of clickwrap closely resembles traditional modes of agreeing to paper standard forms."[33] Since it is cheap to change a browsewrap into a clickwrap, the drafters reason that this change should not be controversial. The drafters note that unless a transferee is familiar with the terms due to previous dealings, terms presented in a browsewrap format would not constitute sufficient notice.[34]

If this form of disclosure succeeds in increasing the number of informed consumers, then it is clearly superior to other, more intrusive alternatives that might be costlier to implement. For the reasons noted earlier, however, if contract readership remains unaffected by these new rules, then adopting a regime of increased disclosure could be potentially harmful.

Increased disclosure regimes have been broadly criticized for being ineffective. For instance, Omri Ben-Shahar argues that disclosure regulations that seek to increase the opportunity to read contracts are unlikely to have *any* effect on consumer behavior, because consumers generally ignore fine print, regardless of how accessible it is.[35] Ben-Shahar and Carl E. Schneider report how mandatory disclosure regimes have failed in a variety of contexts and advocate abandoning this form of regulation.[36] And in earlier work, I found that making contracts more accessible on the web by reducing the number of

that the transferee "signify agreement at the end of or adjacent to an e-standard form or, in the case of a standard form printed on or attached to a package . . . must fail to exercise the opportunity to return the packaged software unopened . . . within a reasonable time." *ALI Principles* § 2.02, comment c at 127 (cited in note 1).

32 See *ALI Principles* § 2.02(c)(3) at 121 (cited in note 1). The relevant provision states that "in the case of an electronic transfer of software, the transferee signifies agreement at the end of or adjacent to the electronic standard form."

33 *ALI Principles* § 2.02, comment c at 129 (cited in note 1). They also explain that "[u]nder subsection (c)(3), a mere screen reference to terms that can be found somewhere else on the site would be insufficient as would a scroll-down window containing the standard form if the 'I agree' icon is not at the end of or adjacent to the standard form." *ALI Principles* § 2.02, comment c at 129 (cited in note 1).

34 *ALI Principles* § 2.02, comment b at 124 (cited in note 1).

35 See Ben-Shahar, 5 Eur Rev Cont L at 5 (cited in note 13).

36 Ben-Shahar and Schneider, *The Failure of Mandated Disclosure* at *54–66 (cited in note 13).

mouse clicks it takes to access them does not affect contract readership in any significant way.[37]

Despite the possible shortcomings of disclosure regimes, the drafters defend their approach by arguing that even if it does not work, increasing disclosure is arguably a cheap solution that, unlike more intrusive alternatives, is unlikely to create any distortions.[38] They also suggest that because business users are more likely to read disclosed terms, disclosure might help that subset of buyers. Finally, presenting consumers with an opportunity to read supports Karl Llewellyn's idea of individual assent and autonomy, even if most consumers do not read.[39] If adopted by courts, the Principles will affect the way buyers and sellers contract online for years to come. It is thus important to test whether the Principles' recommendations will succeed in increasing the number of informed consumers and in creating an informed minority of shoppers capable of disciplining sellers. This Article provides empirical evidence on this question.

II. AN EMPIRICAL ASSESSMENT OF THE PRINCIPLES' APPROACH

To assess whether increased EULA disclosure increases readership, I studied the browsing and shopping behavior of online consumers of eighty-one software retailers who sell their products through their corporate websites and who also make their EULAs available somewhere on their sites. I measured the proportion of shoppers, variously defined, who chose to become informed about the EULAs that govern the featured software as a function of whether they are presented as clickwraps or browsewraps.

A. Data and Sample Construction

This Article uses the clickstream data set introduced by Bakos, Marotta-Wurgler, and Trossen. These data track the Internet browsing behavior of 92,411 US households during January 2007 and were collected by a major online research company that tracks the browsing behavior of a representative panel of US households.[40] Each browsing "session" captured whether the household member initiated

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37 Marotta-Wurgler, *Does Disclosure Matter?* at *4 (cited in note 16) (noting that subtracting one mouse click from the number of clicks it takes to reach the contract increases readership by only 0.05 percent).

38 *ALI Principles* § 2.02, comment h at 134 (cited in note 1).

39 *ALI Principles* § 2.02, comment h at 134 (cited in note 1) (noting that the amount of information disclosure will most likely overload readers but arguing that reputational concerns will help regulate transferor's terms even if readership does not increase).

40 For a detailed description of the data collection process, see Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *17–18 (cited in note 17).

a secure (that is, encrypted) connection, and each website visited has a unique identifier for the company or division that owns that web server. The data also contain demographic information about the household.

The sample of browsing sessions under study includes only visits to online software retailers that sell their products on their corporate websites and that make their contracts available somewhere on the sites before or during the checkout process.[41] The sample excludes freeware providers, peer-to-peer software providers, web hosting companies, and companies that do not sell their software through their corporate websites. The sample also excludes firms with fewer than fifty unique visitors who visited at least two pages in a given month. Ultimately, 47,399 households contributed to the sample by participating in at least one session that satisfied these criteria during the sample period, and collectively these households visited eighty-one different software retailers.[42]

I collected all of the URLs that correspond to EULAs available on each seller's website. I also collected company and product information that might affect a shopper's propensity to become informed about EULA terms. As reported in Bakos, Marotta-Wurgler, and Trossen, the average revenue of the eighty-one sample companies was $1.52 billion and the median was $6 million. The average age of these companies since incorporation was 16.7 years (the median was 14). Regarding product characteristics, which might also affect the demand to learn about EULA terms, the average of the median prices for the products offered on each website was $352, and the median of those prices was $49. Sixty-eight percent of the sample products for which I gathered EULAs were targeted to consumers or home offices as opposed to larger firms. The products were spread across software categories (for example, spreadsheet, antivirus, and so on).[43]

B. Contract Accessibility

To measure contract accessibility and disclosure, I collected *all* of the EULA URLs available on the companies' websites. Some companies offered only one product and posted the EULA for that product.

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41 See Marotta-Wurgler, *Does Disclosure Matter?* at *13–15 (cited in note 16) (describing the method used to select companies and describing their general charecteristics).

42 Bakos, Marotta-Wurgler, and Trossen used a sample of fifty-six retail and ten freeware companies. The companies in this sample included all fifty-six retailers studied in that paper as well as twenty-five additional companies. The latter were not part of the original sample because shoppers are presented with the EULAs during the checkout process, thus preventing us from measuring shoppers' intent to become informed about terms voluntarily.

43 For additional detail on the sample companies and households, see Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *20–21, 24–25 (cited in note 17).

Most companies offered several products. Some used the same EULA for all of their products, and others had different EULAs for each product, including present and past versions. I recorded every EULA posted. There are 240 unique URLs corresponding to EULAs for our sample companies.

The Principles distinguish between clickwraps and browsewraps. For each firm in the sample, I recorded in which of these two basic manners EULAs were disclosed.[44] Clickwraps can be further subdivided into two types. In one type, the buyer is asked to acknowledge the EULA by clicking "I agree" below a scroll box that contains the terms. As noted earlier, this is the type of clickwrap that the drafters would deem enforceable.[45] Most sellers that use clickwraps do so in a slightly different way. They also ask the buyer to click "I agree," but they require another click on a nearby hyperlink entitled "End User License Agreement" before the contract is presented. Other companies in the sample make their contracts available on their websites but require buyers to voluntarily seek them out. They may locate these browsewraps one or more clicks away from the natural path of purchase.

The distribution of contract accessibility by company is reported in Table 1. A total of twenty-five firms, or about 31 percent of the firms in the sample, use clickwraps. Of these, three are of the scroll box type and twenty-two are of the hyperlink type described above. The remaining fifty-six firms use browsewraps to present EULA terms.

TABLE 1. EULA LOCATION SUMMARY STATISTICS: BROWSEWRAPS VERSUS CLICKWRAPS

Contract Accessibility	N	Frequency
Clickwrap	25	30.86%
Browsewrap	56	69.14%
Total	86	100%

Note: Browsewraps are contracts presented as hyperlinks on sellers' web pages that generally require one or more clicks to access from the main page. Clickwraps are contracts presented next to boxes with "I agree" icons next to them that consumers must click on to continue with a particular transaction.

44 For a more nuanced study of increased contract accessibility on readership, see Marotta-Wurgler, *Does Disclosure Matter?* at *18–26 (cited in note 16). That paper measures contract accessibility as the number of mouse clicks it takes to access the EULA from the most natural path to purchase, from zero to up to six clicks away.

45 See note 33 and accompanying text.

1. Shoppers and shopping visits.

Our data set includes the Internet browsing activity of all panel visitors to the sample companies. But people access software retailers' corporate websites for reasons other than shopping. For example, some are looking for a patch to fix a problem with software that they already own, others are looking to download a new update, others are looking for quarterly financial statements, and so on. I thus needed to identify those visitors who were shoppers in the sense that they were potentially interested in buying a product.

I followed the approach in the Bakos, Marotta-Wurgler, and Trossen study to identify shopping-oriented visits, which I discuss briefly below. I attempted to exclude visits that did not access company servers dedicated to shopping or purchasing activities. I defined a "company visit" as all page views (URL accesses) from a company's website within a single user session. I adopted the approach widely used in the clickstream literature by identifying shopping visits based on the intensity of the company visit. Previous research has found that the more pages a user visits on a retailer's site, the more likely the user is to be a shopper.[46]

The first task was to define a company visit. Shopping over the Internet can be different from shopping at brick-and-mortar stores. Internet shoppers can visit a company multiple times at any time of the day from their own homes with just a few mouse clicks. Indeed, researchers have found that shoppers tend to visit a store repeatedly within a month while contemplating a single purchase.[47] I used two definitions of a company visit. The narrowest was that used by the data provider and some articles in the literature, and it considers a single visit as a period of web-browsing activity separated by at least thirty minutes of inactivity.[48] A user can have multiple visits over a day or several days. The broadest definition takes into consideration the possibility that a shopper may visit a company on multiple occasions, over the span of several days, before deciding for or against a purchase. For this definition of a company visit, I aggregated the number of visits to a unique company in a given month. The goal was to establish a

46 See, for example, Wendy W. Moe and Peter S. Fader, *Dynamic Conversion Behavior at E-commerce Sites*, 50 Mgmt Sci 326, 328 (2004). For a detailed account and a list of sources, see Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *21–23 & nn 57–59 (cited in note 17).

47 Eric J. Johnson, et al, *On the Depth and Dynamics of Online Search Behavior*, 50 Mgmt Sci 299, 301 n 2 (2004) (finding that less than 1 percent of all month-long sessions in their sample contained more than one purchasing transaction with a given company).

48 See, for example, Moe and Fader, 50 Mgmt Sci at 331–32 (cited in note 46).

range such that the typical shopping visit would lie somewhere in the middle of these two definitions.

The second task was to determine which company visits can be considered shopping visits. I used three definitions of a shopping visit. The broadest was a visit to at least two pages of the given company's website. The more restrictive definition required at least five page views. This is more likely to exclude casual browsers, but is still broad. The most restrictive definition of "shopper" is one that includes only those visitors who have actually selected a product and initiated a checkout or payment in a given session. Starting a checkout process indicates that a transaction was at least contemplated, even if in a few cases the purchase was ultimately not completed. This last definition of "shopping visit" captures only serious shoppers but is overly restrictive, as it excludes shopping visits that might have resulted in a purchase but did not. Given that there is no perfect way to identify shoppers with the data available, these three definitions can again be viewed as providing some upper and lower bounds on the number of shopping-oriented visits.

2. Reading.

Obviously, we can observe only whether a given page was visited, not whether its content was read or understood. I defined readership as remaining on the URL that contained a EULA for at least one second. This is conservative in that it certainly overcounts the effective rate of readership. That is, this measure gives the informed minority hypothesis the strongest benefit of the doubt. The typical EULA is thousands of words long and cannot be read in one or even several seconds. Furthermore, some of the EULA page clicks may be accidental, or the browser may be looking for other information that is by chance also on the page that contains the EULA.

III. ARE CLICKWRAPS MORE LIKELY TO BE READ THAN BROWSEWRAPS?

Tables 2 and 3 summarize the characteristics of visits to companies that present their terms as clickwraps of the hyperlink type or as browsewraps. This analysis excludes visits to the three companies with clickwraps of the scroll box type—the precise form of clickwrap preferred by the ALI—because all shoppers who begin the checkout process are automatically presented with the text of the EULA. This prevents us from observing the voluntary readership rate. I address visits to these companies separately.

Table 2 measures visits as uninterrupted sessions and Table 3 measures visits by unique users, aggregating all of the monthly sessions.

Each table presents data for each definition of a shopping visit. I report the number of such visits to companies with clickwraps and browsewraps and the average and median number of page views. I also report the number of visits in which the shopper accessed a EULA as well as the average and median length of time spent on the EULA URL when it was accessed.

The top panel of Table 2 looks at uninterrupted visits by visitors who clicked on at least two pages during a company visit. There were 11,184 visits to companies that make their contracts available via a clickwrap, including repeat visits. The average and median numbers of pages viewed during these visits are nine and four, respectively. Yet of all of these thousands of visits, only eight (or 0.07 percent) included EULA access.

This is not much of an improvement over the readership rate of browsewraps. There were 120,545 visits to companies that use browsewraps, and the average and median numbers of pages viewed at those companies are twelve and five, respectively. The total number of EULA visits for these companies was 40 out of 120,545, or 0.03 percent of all visits. While the observed low readership rate here of browsewraps is consistent with the Principles' view that they might provide insufficient notice or be too hard to find, the fact that the readership rate of clickwraps is also virtually nil suggests that access is not the fundamental constraint on readership.

The last columns summarize the time spent on the EULA URL when it was accessed. The median time spent on EULAs as clickwraps was sixty-one seconds and the median for browsewraps was thirty seconds. As noted in the Bakos, Marotta-Wurgler, and Trossen study, the average EULA length is about 2,300 words long. Given the time spent on these contracts, it is unlikely that shoppers became meaningfully informed after having accessed them. Not only are very few shoppers choosing to read the terms, but those who do read them often do not take the time required to fully understand them.[49]

When a shopping visit is defined more strictly, as a visit in which at least five pages in a company website were accessed, the picture is similar. The readership rate of EULAs approximately doubles for both clickwraps and browsewraps, but it remains miniscule in both cases, at under 0.2 percent.

The bottom panel of Table 2 considers visits in which the shopper actually initiated a checkout process. In this case, we can be sure that the visitors were serious shoppers. Here *all* of the visitors to clickwrap

[49] The data cannot track whether consumers saved or printed the terms. If that were the case, then the time spent on a EULA would not reflect the time spent reading it.

EULA sites are aware of the license because the checkout process required them to agree explicitly to it. Still, only 2 out of 381 shoppers chose to actually view the license. This suggests that increased disclosure may simply be unable to induce shoppers to study terms, even when they are being required to confirm their assent.

TABLE 2. CLICKWRAPS VERSUS BROWSEWRAPS: VISITS MEASURED AS UNINTERRUPTED SESSIONS

Contract accessibility	**N of company visits**	**Mean N of pg. acc. per company visit (s.d.)**	**Median N of pg. acc. per company visit**	**N of EULA visits (% of company visits)**	**Mean length of EULA access in seconds (s.d.)**	**Median length of EULA access in seconds**
Panel A. At Least 2 Pages Accessed during Visit						
Clickwrap	11,184	8.5 (23.6)	4	8 (0.07)	139.6 (223.8)	61
Browsewrap	120,545	12.4 (26.9)	5	40 (0.03)	46.9 (43.1)	29.5
Panel B. At Least 5 Pages Accessed during Visit						
Clickwrap	4,513	17.1 (35.4)	9	7 (0.16)	150.4 (239.5)	58
Browsewrap	67,769	19.9 (34.0)	10	37 (0.05)	46.8 (44.74)	29
Panel C. At Least 1 Secure Checkout Page Accessed during Visit						
Clickwrap	381	13.7 (30.8)	6	2 (0.52)	372 (444.1)	372
Browsewrap	4,485	13.11 (30.6)	5	4 (0.09)	90 (68.1)	76.5

Note: Summary statistics of visits to companies with clickwraps and browsewraps, measured as uninterrupted sessions. Results are presented for three different definitions of a visit: two or more pages accessed, five or more pages accessed, and visits where a shopper placed a product in a shopping cart and began a secure checkout process. The first column indicates contract accessibility, measured as either a browsewrap or a clickwrap. The second column reports the number of visits to companies according to their contract accessibility. The third and fourth columns report the average and median number of pages visited during a company visit. The fifth reports the number of visits in which the visitor accessed a EULA. The remaining columns report the average and median time spent on the EULA.

Table 3 aggregates all monthly sessions of an individual user into single company visits. The results are similar to those in Table 2. For all cases, the total number of visits is reduced because multiple visits by individual users are combined. The overall results of Table 3, however, indicate that the general impressions from Table 2 do not depend on the precise definition of company visits. The very highest fraction of readers among retail shoppers across all shopper and session definitions

is 1.46 percent. Only 3 out of the total of 205 buyers who were forced to acknowledge the EULA actually read it.[50]

TABLE 3. CLICKWRAPS VERSUS BROWSEWRAPS: VISITS MEASURED AS MONTHLY AGGREGATES

Contract accessibility	N of company visits	Mean N of pg. acc. per company visit (s.d.)	Median N of pg. acc. per company visit	N of EULA visits (% of company visits)	Mean length of EULA access in seconds (s.d.)	Median length of EULA access in seconds
Panel A. At Least 2 Pages Accessed during Visit						
Clickwrap	6,100	15.6 (57)	4	8 (0.13)	139.6 (223.8)	61
Browse-wrap	63,272	23.66 (79.3)	7	39 (0.06)	51.4 (45.7)	30
Panel B. At Least 5 Pages Accessed during Visit						
Clickwrap	3,011	29.0 (79.0)	11	7 (0.23)	150.4 (239.5)	58
Browse-wrap	40,697	35.3 (96.9)	14	36 (0.09)	49.5 (45.5)	29.5
Panel C. At Least 1 Secure Checkout Page Accessed during Visit						
Clickwrap	205	79.7 (165.9)	27	3 (1.46)	283.3 (349.5)	106
Browse-wrap	2,786	34.0 (79.1)	10	4 (0.14)	90 (68.1)	76.5

Note: Summary statistics of visits to companies with clickwraps and browsewraps, measured as monthly aggregates. Results are presented for three different definitions of a visit: two or more pages accessed, five or more pages accessed, and visits where a shopper placed a product in a shopping cart and began a secure checkout process. The first column indicates contract accessibility, measured as either a browsewrap or a clickwrap. The second column reports the number of visits to companies according to their contract accessibility. The third and fourth columns report the average and median number of pages visited during a company visit. The fifth reports the number of visits in which the visitor accessed a EULA. The remaining columns report the average and median time spent on the EULA.

Tables 2 and 3 contain six distinct estimates of the effect of mandating disclosure on the readership rate. In the first panel of Table 2, the increase is 0.04 percent (0.07 percent minus 0.03 percent), for example. Some of these are more likely to approach lower bounds and others more likely to represent upper bounds. Averaging across the six

50 The issue is not one of sample size. The asymptotic standard error of the mean of the binomial distribution is $(p \times (1-p)/n)^{½}$. Inserting $p = 0.0146$ and $n = 205$ gives an estimate of the standard error of 0.008. Roughly speaking, the 95 percent confidence interval for the estimated readership rate is $0.0146 \pm 1.96 \times 0.008$, or 0 to 0.03—that is, 0 percent to 3 percent.

estimates yields 0.36 percent, but in any case the range is narrow in absolute terms.

These results raise serious doubts about whether disclosure will, or even can, have an impact on readership as substantial as that envisioned by the drafters of the Principles. There is one more category of disclosure to examine, however, which includes the very best-disclosed EULAs—clickwraps of the scroll box type. These contracts are presented in a scroll box next to the "I agree" icon and do not ask consumers even to click on a single link. Because all shoppers who decide to purchase a product are presented with the text of the EULA regardless of their interest in reading it, I can measure only the time spent on these pages to assess shoppers' true interest level. In interpreting the time spent on these pages, one must consider that these companies also require the shopper to enter his name, billing address, and credit card information on the same page on which the EULA text appears.[51]

For uninterrupted sessions, there were 7,296 (unreported) visits to these firms under the broadest definition of shopping visit. Of these, 523 (or 7.13 percent) involved accessing a EULA. The best way to interpret this result is that 7.13 percent of those visiting these companies started a checkout process. The average time spent on the page containing the EULA was 117 seconds, and the median was 65 seconds. Given that these companies require shoppers to enter personal information *as well as* agree to a lengthy EULA, most of the time spent on this page was not spent reading the EULA text. More precisely, if the average EULA is 2,300 words long and the average adult reading rate of *non*-legalese is 250 to 300 words per minute, then the shopper needs 10 minutes just to read the full contract, leaving aside the other tasks required on the page. The results are similar under other definitions of shopping and company visits. Of all combinations of definitions, the highest median time spent on the EULA-containing page was ninety-four seconds. Moreover, I found in earlier work that even those few consumers who read are not swayed by what they read in making their purchase decisions.[52]

In unreported logistic regressions, I regressed the probability that a EULA will be read on contract accessibility and controlled for company, product, and shopper characteristics.[53] I find that *mandating* assent

51 This varies by firm. Some firms require shoppers to enter their names and addresses on the EULA page, while others require that shoppers enter their credit card information.

52 See Marotta-Wurgler, *Does Disclosure Matter?* at *27–29 (cited in note 16) (finding that the likelihood of purchase is not affected by the number of terms that favor the seller).

53 Complete product controls include whether the product is offered on a subscription basis, the natural log of the median product price, whether the product is targeted to business or

has, if anything, a small and statistically significant negative effect on contract readership (0.2 percent at the 5 percent level of significance) in the case of the two broader definitions of shopping visits.[54] In the case of secured checkouts, mandating assent increases readership by a statistically insignificant 0.7 percent. The results hold even after considering that some products, such as Microsoft Office, may be repeat purchases and thus their EULAs are less likely to be read.[55]

Although common sense suggests that such marginal increases in readership rates are too small to induce an informed minority equilibrium in which comparison shopping effectively polices terms, this can be demonstrated more quantitatively. Disregarding the impact of control variables, which as just noted diminishes the overall higher readership rate associated with clickwraps, the highest fraction of EULA accesses in our sample was found in the monthly aggregated sessions of shoppers who initiated a checkout session. Even among these most serious shoppers, the fraction of EULA access was under 1.5 percent (3 out of 205). Using estimates for the requisite size of the informed minority from the Bakos, Marotta-Wurgler, and Trossen study, I find that even this number is too small to discipline sellers into offering desirable terms.[56]

The general conclusion is clear: no matter how prominently EULAs are disclosed, they are almost always ignored.

IV. IMPLICATIONS

Disclosure regimes have long been the preferred approach to address problems stemming from imperfect information in a range of consumer contexts. The Principles follow this tradition and recommend increased disclosure as a device to increase readership and

consumer end users, and whether the product is offered with a trial version. Company controls include the natural log of revenue, whether the company is publicly traded, and the natural log of age. Shopper controls include gender, the natural log of age, and the natural log of income.

54 For a more nuanced study of the effects of contract accessibility on readership, see Marotta-Wurgler, *Does Disclosure Matter?* at *20 (cited in note 16) (finding that increased contract access—that is, lower number of mouse clicks it takes to access the contract—is indeed associated with increased readership, but that the total number of readers is extremely small).

55 See Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *20–21, 35–36 (cited in note 17). As in that paper, I checked whether shoppers are less likely to read the EULAs of products that were, in my judgment, more likely to be purchased repeatedly. Users that become familiar with a product that is continuously updated may feel less need to concern themselves with the EULA. Other products, such as test preparation software, are less likely to be purchased repeatedly. I created a dummy variable that equals 1 if the company marketed products that were, in our judgment, likely to be repeat purchases. I found no relationship between the nature of the use of the software and users' propensity to access EULAs.

56 For a thorough analysis finding that EULAs have little impact on consumer behavior, see Marotta-Wurgler, *Does Disclosure Matter?* at *29–31 (cited in note 16).

comparison shopping for standard terms. This Article evaluates whether this recommendation is likely to work.

Using the clickstream data of tens of thousands of households for a period of one month, I found that clickwraps are not read at significantly higher rates. Depending on the methodology, I estimate that moving from browsewraps to clickwraps would increase shoppers' readership rates by 0.04 percent to 1.32 percent relative to a baseline readership rate of around 0 percent. An average estimate of the effect across six methodologies is 0.36 percent. Put differently, switching to clickwraps would be expected to generate 1 more reader out of every 278 shoppers. I also find that the time spent on EULA URLs, even when they are accessed, is usually too small to allow for more than a cursory review. These findings suggest that the Principles' goal of increasing disclosure to alleviate possible market failures will not increase readership or economic pressure on sellers.

It is also worth noting that there is evidence indicating that delayed or reduced contract disclosure is not associated with more proseller terms. Recent evidence shows that the terms of sellers that use PNTLs are no more one-sided than those of sellers that disclosed their contracts on their sites in the form of browsewraps or clickwraps.[57] This suggests that sellers are not using delayed or inconspicuous disclosure to sneak in particularly unfavorable terms.

An argument made in favor of disclosure is that even if it does not increase readership, it honors contract law's "opportunity to read" and protects individual autonomy.[58] Another is that pressure to increase disclosure might encourage reputationally constrained sellers to offer reasonable terms. The problem with these positions is that these relatively intangible benefits need to be weighed against the real costs of changing policy.

There are a number of such costs. Some are direct costs to sellers. In my sample, only three out of eighty-one sellers currently use clickwraps of the specific type recommended by the Principles. A related cost is the lost business as a result of complicating the checkout process.[59]

Other costs are hidden but potentially more significant. There is a possible opportunity cost insofar as ineffective change forestalls real change. Once a regulation is in place, it might take decades to revise its effectiveness and implement a new approach.[60] In the meantime,

57 Marotta-Wurgler, 38 J Legal Stud at 333–37 & table 4 (cited in note 15).

58 See *ALI Principles* § 2.02, comment e at 132 (cited in note 1).

59 See Mann and Siebeneicher, 108 Colum L Rev at 1000 & n 57 (cited in note 14).

60 The Truth in Lending Act, 15 USC § 1601 et seq, has been criticized on these grounds. See, for example, FTC, *Improving Consumer Mortgage Disclosures: An Empirical Assessment of Current and Prototype Disclosure Forms* 2–7 (June 2007), online at http://www.ftc.gov/

the mere appearance of a new policy embraced by authorities might induce courts to be more lax about policing terms, to the extent that they are lulled into thinking that terms are now the product of a well-functioning market.[61] As noted earlier, this concern is also shared by the drafters of the Principles.[62]

It is important to be precise about the policy implications of these findings. I do not provide any evidence regarding whether EULA terms are indeed too unfavorable to the consumer—whether they are one-sided to a degree that buyers would take note if they were made to understand them. Sellers could be constrained by reputation or the fear of litigation and could be writing reasonable contracts in most cases. What I show is that *if* there are inefficiencies in this market, then increased disclosure *alone* cannot be counted upon to make a difference, and it is dangerous to believe otherwise.

The evidence here also implicitly offers guidance on which types of intervention might be more effective in increasing economic pressure on sellers. Given the low readership rates regardless of accessibility, the problem appears to involve the expected net benefits to readership. Many EULAs are too long and complicated for one to rationally take the time to read, especially when they govern the use of moderately priced products. Several consumer watchdog groups maintain websites that identify EULAs with onerous terms.[63] Unfortunately, Bakos, Marotta-Wurgler, and Trossen find that very few people access these websites either.[64] There is even a program that users can install for free that screens EULA terms and alerts consumers of possible pitfalls, but most software shoppers are not aware of it.[65]

os/2007/06/P025505MortgageDisclosureReport.pdf (visited Oct 22, 2010). See also Ben-Shahar and Schneider, *The Failure of Mandated Disclosure* at *15–16 (cited in note 13).

61 See Hillman, 104 Mich L Rev at 853–55 (cited in note 13); Ben-Shahar and Schneider, *The Failure of Mandated Disclosure* at *59–60 (cited in note 13).

62 See note 13 and accompanying text.

63 See, for example, Electronic Frontier Foundation, *The Terms-of-Service Tracker*, online at http://www.tosback.org/timeline.php (visited Oct 22, 2010) (tracking and publishing changes in the EULAs of fifty-six prominent online retailers); Andy Sternberg, *The Small Print Project*, online at http://smallprint.netzoo.net/ (visited Oct 22, 2010) (maintaining a blog on EULA changes that could be unfavorable to consumers); Ars Technica, *Tech Policy*, online at http://arstechnica.com/tech-policy (visited Oct 22, 2010) (reporting on recent changes in Internet and technology policy including newsworthy changes in industry EULA policies).

64 Bakos, Marotta-Wurgler, and Trossen, *Does Anyone Read the Fine Print?* at *33–34 (cited in note 17) (finding that in a large sample of shoppers, none visited a web page with information about EULAs). See also Marotta-Wurgler, *Does Disclosure Matter?* at *26 (cited in note 16) (arguing that even if consumers accessed EULA watchdog information, this would not change the fact that disclosure does not change consumers' behavior).

65 The company Javacool Software offers a version of its "EULAlyzer" software for free. Alexa, a site that measures Internet traffic, reports that its traffic rank is currently 78,085, thus indicating very few monthly visits. See Alexa Internet, Inc, *JavacoolSoftware.com*, online at http://www.alexa.com/siteinfo/javacoolsoftware.com# (visited Oct 16, 2010). For a manufacturer

Simplifying and standardizing the presentation format of contracts would likely be helpful. This might change consumers' expectations about the costs of reading contracts and might induce them to read more, although one should be realistic about the actual magnitude of any increase in readership. Alternatively, a brief, standardized label summarizing the key provisions on or near the product description page—in a manner similar to food nutrition labels—could only be helpful.[66] Perhaps consumers could come to rely on standardized letter grades for contracts that have been approved by a credible and independent third party.[67] But again, each one of these changes would be costly to implement and should not be formally proposed by the authorities without evidence that these costs are outweighed by benefits. Studies like the one in this Article represent one approach to measuring the efficacy of alternative policy proposals.

It could also be the case that, in some cases, buyers would almost never find it worthwhile to become informed about terms. Given the low probability that an onerous term such as a forum selection clause will be triggered, consumers might be best served by becoming informed about EULAs only after an adverse event occurs.[68] It might then be helpful to consider easing consumers' abilities to seek redress ex post, as the threat of litigation can also discipline sellers into offering reasonable terms. Possible solutions would be to facilitate access to small claims courts and reconsider the desirability of forum selection clauses and class action waivers. The Principles indeed introduce some mandatory clauses in this context.

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description and copy of the EULAlyzer, see Javacool Software, *EULAlyzer Personal*, online at http://www.javacoolsoftware.com/eulalyzer.html (visited Oct 22, 2010).

66 The FTC has mandated standardized labeling in a variety of contexts. Examples include the Appliance Labeling Rule, the Fuel Ratings Rule, and the R-value Rule. See FTC, Appliance Labeling Rule, 72 Fed Reg 49948, 49948–49 (2007) (amending 16 CFR § 305); FTC, Automotive Fuel Ratings, 73 Fed Reg 40154, 40159 (2008) (amending 16 CFR § 306); FTC, Labeling and Advertising of Home Insulation: Trade Regulation Rule, 70 Fed Reg 31258, 31274 (2005) ("R-value Rule") (amending 16 CFR § 460). Another example of standardized disclosure is the "Schumer Box," which requires that certain credit cards terms be disclosed in a summarized and standardized fashion. See Elizabeth Renuart and Diane E. Thompson, *The Truth, the Whole Truth, and Nothing but the Truth: Fulfilling the Promise of Truth in Lending*, 25 Yale J Reg 181, 217–21 (2008). See also Clayton P. Gillette, *Preapproved Boilerplate*, in Omri Ben-Shahar, ed, *Boilerplate: The Foundation of Market Contracts* 95, 97–104 (Cambridge 2007) (arguing that government standardization of contract terms is undesirable because agencies are poorly equipped to create good terms); Oren Bar-Gill and Oliver Board, *Rethinking Disclosure, or Product Use Information and the Limits of Voluntary Disclosure* *16–26 (unpublished manuscript, 2010) (on file with author).

67 This was proposed by Ben-Shahar, 5 Eur Rev Cont L at 22–25 (cited in note 13) (arguing that user-friendly metrics of product quality have been successful elsewhere and could be tried for contract terms, but conceding that there is not an obvious methodology to generate the rating).

68 See Shmuel I. Becher and Tal Z. Zarsky, *E-contract Doctrine 2.0: Standard Form Contracting in the Age of Online User Participation*, 14 Mich Telecom & Tech L Rev 303, 320 (2008).

Such an approach moves closer to direct regulation of terms, however, which is always uncomfortable because the regulator is put in a difficult and paternalistic position. It is hard enough to determine optimal licensing terms in any one transaction but even harder to codify guidelines that would be beneficial in a broad majority of cases. Disclosure and suitable modifications of contract format may be steps in the right direction, but we must be realistic about whether the likelihood that even a well-designed combination of changes along these lines would ever be able to raise the level of awareness of EULA terms to a meaningful fraction. Before adopting this approach, we must move beyond anecdote and learn more about the extent to which terms now on offer are detrimental to consumer welfare.[69]

69 For a further discussion of consumer welfare, see Florencia Marotta-Wurgler, *What's in a Standard Form Contract? An Empirical Analysis of Software License Agreements*, 4 J Empirical Legal Stud 677, 680 (2007) (noting that most EULAs are seller-biased relative to the buyer-friendly default rules of UCC Article 2).