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Blind Consent?

A Social Psychological Investigation of Non-Readership of Click-Through Agreements

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## Abstract

Across two studies we aimed to measure empirically the extent of non-readership of click-through agreements (CTAs), identify the dominant beliefs about CTAs contributing to non-readership, and experimentally manipulate these beliefs to decrease automatic non-reading behavior and enhance contract efficiency. In our initial questionnaire study (Study 1), as predicted, the vast majority of participants reported not reading CTAs and the most prevalent beliefs about CTAs contributing to non-readership included: they are too long and time-consuming, they are all the same, they give one no choice but to agree, they are unimportant, they are irrelevant, and vendors are generally reputable. Manipulating these beliefs on a simulated music web site (Study 2) revealed an increase in readership. Additionally, CTA comprehension and CTA rejection rates were both increased significantly by manipulating the length of the CTA. These results demonstrate support for the influence of widely-held beliefs about CTAs on contract readership, provide evidence against the common “limited cognition” perspective on non-readership, and suggest that presenting CTAs in a short, readable format can increase CTA readership and comprehension as well as shopping of CTA terms.

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It is now widely accepted that a primary contributing factor to the subprime mortgage crisis of 2007-08 was the marketing of adjustable-rate mortgages to borrowers who had little understanding of their underlying risks. A central focus of financial reform following the housing crisis has accordingly been to ensure that individuals are better informed about the contract terms that govern their consumer credit transactions—a goal featured most notably in the creation of the Consumer Financial Protection Bureau. As summarized by Elizabeth Warren (2010), its chief architect, “the new consumer bureau is based on a pretty simple idea: people ought to be able to read their credit card and mortgage contracts and know the deal.” Yet notwithstanding the simplicity of this idea, a rather complicated empirical fact promises to make its realization a formidable challenge: In particular, consumers have long refused to read mass market contracts (Eisenberg, 1995).

Why don't consumers read form contracts? Are there any conditions under which efforts to enhance consumer readership might actually succeed? To get at these questions, we undertake a psychological investigation of the causes of non-readership of mass market contracts in one of the most notorious domains of consumer non-readership: Internet click-through agreements (CTAs). Used by on-line vendors to set forth their legal relationship with consumers (Kunz, Del Duca, Thayer, & Debrow, 2001), CTAs are ubiquitous in the on-line world. Requiring but a simple mouse-click of “I agree” to be formed, CTAs are commonly used to establish the terms of use of a website, the terms upon which a consumer may download and use a software program, or even the terms on which a consumer can apply for a home mortgage or credit card.

As with standard, paper based contracts, anecdotal evidence and recent empirical

research indicates that individuals overwhelmingly make the choice to accept—but not read—CTAs (Bakows, Marotta-Wurgler, & Trossen, 2009; Becher & Unger-Aviram, 2008; Hillman, 2006a). This documented phenomenon of “blind consent” thus makes CTAs a natural starting point for investigating the causes of consumer non-readership. At the same time, the fact that CTAs are presented, assessed, and accepted entirely in an on-line environment provides a unique opportunity to subject consumer behavior to experimental analysis given the ability to electronically monitor contract reading.

Non-readership of CTAs also poses important public policy considerations in its own right. Like their older, paper-based cousins, CTAs generally constitute enforceable contracts given that legal doctrine requires simply that an individual manifest assent to a contract—such as by clicking “I agree”—to become legally bound. Although a court might later invalidate certain contract terms as legally “unconscionable,” the formal requirements for demonstrating unconscionability make such instances of judicial invalidation rare (Lemley, 2006). Consequently, regardless of whether a consumer reads a CTA, she may subsequently find herself subject to a contract limiting her right to collect a refund in the event of a defective product or service, requiring disputes to be resolved by binding arbitration, or otherwise imposing conditions on the use of a product or service that might be the subject of bargaining (or outright rejection) had the consumer read the contract language. Indeed, CTAs might even restrict what a consumer can say publicly about his or her experience with a purchased product, as was the case in *People v. Network Associates, Inc.* (2003), where the software license agreement for McAfee antivirus software banned customers from “publish[ing] reviews of this product without prior consent from Network Associates, Inc.” More recently, the potential for CTAs to include usage conditions that large numbers of consumers might find objectionable gained national attention

following Facebook's recent modification to its Terms of Use. The modification allowed the social networking site to extend its license over a subscriber's posted content even after its deletion by a subscriber; however, the change went seemingly unnoticed by Facebook users until a consumer protection blog actively publicized it. The blog's campaign eventually prompted over 38,000 users to join a group protesting the change as well as an investigation by the Federal Trade Commission. Similar concerns about the content of privacy policies used by mobile phone providers emerged in 2011 following revelation that both the iPhone terms of service and the Android software privacy policy permitted location tracking of iPhone and Android users (Munchbach, 2011).

### **Relationship to Existing Contract Literature**

By providing an empirical examination of the causes of contract non-readership, we build on a rich theoretical literature examining this issue. Not surprisingly, apprehension that consumers might unknowingly agree to disadvantageous terms in mass market contracts has long been a central issue in contracts scholarship. Recognizing that consumers rarely read form contracts of any type, scholars have expressed concern that vendors of mass market contracts might use this behavior to write one-sided, onerous contract terms. Consequently, scholars have advocated greater judicial scrutiny of standard form contracts either through policing the substantive fairness of contract terms (Bar-Gill, 2004; Korobkin, 2003), establishing a rule that certain terms are presumptively unenforceable (Lorsen, 2004; Radin, 2000; Rakoff, 1983), or requiring more prominent disclosure of contract terms (American Law Institute, 2010; Gomulkiewicz, 2004; Hillman, 2006b; Hillman & Barakat, 2009). Others, however, have been less willing to assume that non-readership necessarily leads to suboptimal contract terms. In particular, as first postulated by Schwartz & Wilde (1983), businesses in competitive product

markets should ordinarily compete for the handful of consumers who do read standard form contracts. And since this informed minority of consumers will shop for optimal contract terms, businesses have an incentive to write fair, efficient contracts, particularly where businesses are unable to discriminate between readers and non-readers (Ribstein & Kobayashi, 2002; Schwartz & Wilde, 1983).

Notwithstanding this long-standing debate among legal academics, studies of form contracts in general, and CTAs in particular, have suffered from a dearth of empirical research on the behavior of consumers when actually presented with form agreements. Indeed, for many years, the foundational assumption that underlies the enormous scholarship on form contracts—namely, that the vast majority of consumers do not read them—went almost entirely unexamined. Recently, several scholars have made important inroads in examining the extent to which consumers read standard form contracts, but the empirical examination of consumer reading behavior remains in its earliest stages. In a pair of survey studies, for instance, Hillman (2006a) as well as Becher and Unger-Aviram (2008) provide important first steps in examining contract readership in their analysis of how law and business students behave when presented with standard form contracts; however, the informal nature of the surveys and their focus on law and business students make it difficult to generalize from their findings that most students do not read them. For example, law students may have greater confidence in a court's ability to strike down particular terms or in a vendor's desire to avoid legal invalidation of a contract.

More recently, Bakows et al. (2009; see also Marotta-Wurgler, 2010) analyzed the clickstream data of 50,373 households and found that less than 1% of households chose to access the relevant end-user license agreement (EULA) following an on-line purchase of software. Although the study provides compelling evidence that very few consumers search for a EULA

when purchasing software, the study's design provides little insight into consumer reading decisions. In particular, focusing on clickstream data required the researchers to use the household as the unit of analysis, thereby making it impossible to conduct a more individualized analysis of consumer reading behavior.

More importantly, the prevailing scholarship on standard form contracts lacks any systematic examination of the psychological functioning associated with non-readership of CTAs or other mass market agreements. Understanding why consumers read or don't read form contracts is fundamentally a question about psychological processes, making examination of these processes a natural starting point for reform proposals aimed at correcting the problems associated with non-readership. Yet while psychologists have begun to study the emotional effects of certain contract disclosures (Wiener, Holtje, Winter, Cantone, Gross, & Block-Lieb, 2007) and psychological barriers to understanding mortgage contracts (Stark & Choplin, 2010), they have yet to focus on the psychology of the more basic challenge of consumer non-readership.

Reform proposals aimed at non-readership of form contracts have therefore had to rely on general models of human behavior that may fail to reflect actual psychological functioning in the context of mass market contracting. Most notably, legal scholars have tended to explain the non-readership phenomenon by relying on a general rational choice decision-making paradigm in which the expected costs of reading are perceived to outweigh the expected benefits (Korobkin, 2003). Even within this framework, however, the manner in which consumers form preferences and perceptions of the costs and benefits of readership remains largely unexplored. Rather, to the extent scholars have grappled with consumer preferences at all, they have largely relied on a model of limited human cognition in which individuals' preference for non-readership is driven

by a proclivity to engage in time-saving decision-making heuristics or a desire to avoid the burden of making explicit trade-offs between product attributes that might be stressful to compare (Eisenberg, 1995; Hillman & Rachlinski, 2002; Korobkin, 2003). This limited psychological analysis of non-readership has largely been rooted in an implied understanding of limited human cognition as both motivational and ability-based (with the latter including not just actual ability but also perceived ability to manage the cognitive load presented by form contracts). As summarized by one leading legal scholar, non-readership reflects “a preference not to care” and “an implicit surrender to cognitive limitations” (Ben-Shahar, 2009). Whether this view reflects actual human behavior has yet to be addressed empirically.

### **Overview of Studies**

To understand better the prevalence and causes of non-readership of form contracts, we designed two studies to investigate the behavior of individuals when presented with CTAs. As noted previously, we focus on CTAs due to their ability to be manipulated and used in a computer-based laboratory environment as well as their prevalence in today’s society. CTAs also represent agreements with which our participants (college undergraduates) were likely to have prior experience as consumers thus facilitating our ability to collect data regarding consumers’ attitudes towards these agreements.

In both studies, we sought to isolate the most widely-held beliefs about form contracts and their influence on consumer readership. By focusing on beliefs (Bar-Tal, 2000; Fraser & Gaskell, 1990), the studies build on a long tradition of research in social psychology that emphasizes the importance of understanding people’s construal of the world around them in order to predict or change behavior (e.g., Lewin, 1943; Ross & Nisbett, 1991; Trope & Liberman, 2003). Examining construals of, or beliefs about, CTAs also can provide insight into



how they might influence individuals' preferences for reading vs. non-reading within the traditional rational choice paradigm (Fillieule, 1996; Kühberger, 2002; Slovic, 1995). With this framework in mind, the first study was a questionnaire study designed to measure empirically the extent of non-readership of CTAs and to uncover those beliefs about CTAs that might affect reading behavior. We then reasoned that to the extent non-readership is associated with particular beliefs about CTAs, modifying these beliefs when presenting consumers with a CTA should result in increased readership and, potentially, CTA comprehension and shopping of CTA terms. Following this logic, Study 2 used a simulated on-line contracting environment to experimentally test whether modifying the most prevalent beliefs about CTAs could increase readership, comprehension, and shopping of a typical CTA.

### **Study 1**

As noted above, the primary objectives of the first study were to examine the incidence of non-readership of CTAs and to identify beliefs about CTAs that contribute to non-readership. On the basis of anecdotal evidence, pre-testing interviews, and limited survey evidence (Bakows et al., 2009; Hillman, 2006a), we hypothesized that the vast majority of people do not read CTAs. Based on our preliminary research and survey of the literature, we further hypothesized that a variety of beliefs about CTAs contribute to this non-readership behavior. Specifically, these include the perception that: (1) CTAs are too long and time-consuming (Olson & Olson, 2003); (2) CTAs are written in incomprehensible legalese (Hartley, 2000; Masson & Waldron, 1994; Stolle, 1998); (3) consumers have no choice but to accept CTAs if they want the underlying product (Hillman & Rachlinski, 2002; Rakoff, 1983); (4) CTAs all say the same thing (Epstein, 2006; Stark & Choplin, 2010); (5) courts will subsequently void any onerous terms in a CTA (e.g., using the "unconscionability" doctrine) (Gillette, 2004); (6) vendors' terms in CTAs are

generally fair and reasonable (Gillette, 2004); (7) reputable vendors have no economic incentive to offer and/or to enforce unreasonable or unfair terms (Gillette, 2004; Katz, 1998); and (8) no one reads CTAs (Ben-Shahar, 2009; Stark & Choplin, 2010). In general, these beliefs are consistent with a rational choice decision-making paradigm in which individuals focus on the perceived high costs of reading (e.g., beliefs (1) & (2)) and/or its low benefits (e.g., beliefs (3) – (7)). The one exception is the belief that no one reads CTAs, which is consistent primarily with a rule-based, satisfying mode of decision-making (Mellers, Schwartz, & Cooke, 1998).

We also examined the relationship between reading behavior and cognition-related traits in light of the large legal literature relying on a model of limited human cognition to explain non-readership. For example, according to this model, individuals' need for cognition—the tendency to engage in and enjoy effortful cognitive activity (Cacioppo & Petty, 1982)—should affect their willingness to grapple with the cognitive demands of reading a CTA, and therefore their willingness to read it. Likewise, because mindfulness—the open awareness of and attention to what is taking place in the present—has been found to work against the operation of automatic and habitual functioning (Brown & Ryan, 2003), we should also expect a relationship between this trait and readership according to the limited cognition model. In light of research documenting the importance of consumer trust in evaluations of companies and information encountered online (Gefen, Karahanna, & Straub, 2003; McKnight, Choudhury, & Kacmar, 2002a; Pennington, Wilcox, & Grover, 2003), we also speculated that individuals showing a predisposition towards trusting internet vendors could be more inclined to skip reading a CTA in favor of relying on a vendor's reputation to ensure a fair exchange. We also expected that the more exposure an individual had to CTAs, the less inclined he or she would be to read CTAs. In particular, we hypothesized that repeat exposure to CTAs might encourage individuals to

extrapolate into the future the time and effort involved in reviewing any particular CTA, thereby encouraging individuals to rationalize the process of simply clicking-through without reading. We also tested for the relationship between readership and Big Five personality traits and demographic characteristics to evaluate whether non-readership cuts across or varies with these characteristics.

## **Method**

**Participants.** The sample consisted of 182 undergraduate students at a large public university in the southeastern United States who participated for class credit. The mean age of the participants was 19.4 years ( $SD = 1.67$ ), 41.4% of the participants were female, and 83.8% were White (7.7% Black, 1.1% Hispanic, 4.9% Asian, 2.2% other).

**Materials and procedures.** To ensure participants' familiarity with CTAs, we first showed them a real life example (a print-out of the Terms of Service required to access the iTunes music store). All participants acknowledged having some familiarity with CTAs. In addition, on the first questionnaire item, which asked participants how often they see these agreements (1 = *never* to 6 = *very often*), the median response was 4 ( $M = 4.21$ ,  $SD = 1.14$ , 95% CI [4.03, 4.37]), indicating high overall exposure. The rest of the questionnaire sought to elicit three principal types of information: readership, acceptance, and comprehension; beliefs about CTAs; and participant characteristics.

### ***Readership, acceptance, and comprehension.***

**Reading behavior.** Participants were asked to classify their typical behavior when confronted with a CTA ("Typical Reading Behavior Item"; 1 = *do not read at all (simply click)*, 2 = *scroll without really reading anything*, 3 = *skim looking mainly at headings but do not really read anything*, 4 = *skim looking mainly at headings and maybe read a little*, 5 = *read somewhat*

*carefully*, 6 = *read carefully*), to indicate how often they read the agreements (1 = *never* to 6 = *always*), and to classify themselves as “non-readers” or “readers.”

*Acceptance.* Participants were asked to indicate how often they accept CTAs (1 = *never*, 6 = *always*) and to estimate the percentage that they accept.

*Comprehension.* Participants were asked to rate their knowledge of what these agreements generally say (1 = *ignorant* to 6 = *very knowledgeable*), six questions about their knowledge of the terms of the iTunes Terms of Service (e.g., “If Apple were to change iTunes in a way that prevented me from copying to a CD an iTunes song that I purchased, it would be in violation of my legal rights”; 1 = *Strongly disagree*, 6 = *Strongly agree*), and whether CTAs authorize the “collection and sharing of information about you by the vendor” (yes/no).

### ***Beliefs about CTAs.***

*Open-ended item.* To identify beliefs that contribute to non-readership, participants were asked an open-ended question to explain their typical reading behavior. Answers were coded by two carefully trained undergraduate research assistants blind to the hypotheses. We developed a thematic coding scheme on the basis of our hypotheses and a review of a separate set of pilot questionnaires (N = 30) previously collected from the same population. This review suggested a handful of beliefs about CTAs not previously identified in our pre-testing interviews. Most notably, non-readers demonstrated a tendency to explain their non-readership due to the fact that CTAs are “irrelevant” to them or that they were simply indifferent or apathetic with regard to the contents of the CTA. Table 1 includes this expanded list of coding categories for non-readers (N = 147), together with examples for each. To account for the fact that multiple beliefs about CTAs might be important to a participant, codes were not rendered mutually exclusive. The average Cohen’s kappa was 0.88 (range = 0.73–0.94), indicating that the agreement between coders was

substantial (Landis & Koch, 1977). The authors resolved any discrepancies through discussion.

In addition, the questionnaire contained specific items that reflected beliefs about CTAs predicted to affect readership:

*No one reads CTAs.* Participants were asked to classify the typical behavior of “most people” when confronted with a CTA (“Typical Reading Behavior of Most People Item”).

Responses included the same six options used for the Typical Reading Behavior Item.

Participants were also asked to classify “most people” as “non-readers” or “readers.”

*No choice.* Participants were asked how much they agree (1 = *strongly disagree* to 6 = *strongly agree*) with the following two items: “When it comes to these agreements, I have some control in negotiating the terms” and “When it comes to these agreements, I have no choice but to accept the terms presented if I want the product or service.”

*Reputable.* Using the same six-point scale, participants were also asked how much they agree with the following item: “The reputation of an Internet vendor is important to me when deciding whether or not to accept a click-through agreement.”

*Fair and reasonable.* Using the same six-point scale, another item asked, “In general, the terms of these agreements are fair to me (i.e., the consumer).”

*Not enforceable or unlikely to be enforced.* Participants were asked to estimate the likelihood that a court would enforce a CTA against them if sued for violating its terms (1 = *not at all/0% likelihood* to 6 = *certain/100% likelihood*) and how often they feared being sued by a vendor for violating a CTA to which they have agreed (1 = *never* to 6 = *always*).

***Participant characteristics.***

*Trust.* The first set of trust items (1 = *disagree strongly* to 6 = *agree strongly*) measured overall proclivity for interpersonal trust with three items (e.g., “Generally speaking, would you

say that most people can be trusted or that you can't be too careful in dealing with people?"; Rosenberg, 1956), averaged together ( $\alpha = 0.68$ ). The second set measured proclivity for trusting businesses (e.g., "Generally speaking, would you say that most businesses can be trusted or that you can't be too careful in dealing with businesses?";  $\alpha = 0.68$ ). The last set measured sense of comfort and trust while working and shopping on the Internet with eight items adapted from McKnight, Choudhury, & Kacmar's (2002b) Institution-Based Trust items (e.g., "I feel good about how things go when I do purchasing or other activities on the Internet";  $\alpha = 0.87$ ).

*Cognition and mindfulness.* Willingness and desire to engage in challenging cognitive processes was assessed using the Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984;  $\alpha = 0.88$ ), and mindfulness was assessed with the Mindful Attention Awareness Scale (Brown & Ryan, 2003;  $\alpha = 0.82$ ).

*Personality.* The Ten-Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003) was used to measure the Big Five personality factors (Openness,  $\alpha = 0.47$ ; Conscientiousness,  $\alpha = 0.59$ ; Extraversion,  $\alpha = 0.84$ ; Agreeableness,  $\alpha = 0.48$ ; and Emotional Stability,  $\alpha = 0.67$ ).

*Internet use and importance of legal rights.* Responses to items on the importance of using the Internet, shopping on-line, access to on-line music sites, and frequency of use of on-line music sites (1 = *not at all important* to 7 = *extremely important*) were averaged together to form a composite of on-line experience ( $\alpha = .70$ ). Participants were also asked "How important is it to you to understand your legal rights?", if they had ever downloaded music from a music website, and if they owned an iPod or MP3 player (yes/no).

*Demographics.* The final section elicited information such as gender, race, age, and socio-economic status (self-identified class, income, parents' highest level of education).

## **Results**

### **Incidence of non-readership, rates of acceptance, and contract comprehension.**

**Reading behavior.** As predicted, participants reported rarely reading CTAs. Figure 1 summarizes responses to the primary question of interest, the Typical Reading Behavior Item ( $Mdn = 2$ ,  $M = 2.44$ ,  $SD = 1.14$ , 95% CI [2.27, 2.61]). Over 80% of participants selected a reading behavior that consisted of either “not reading at all” or not “really reading anything.” Moreover, of the remaining 20% of participants, the vast majority (16.5%) described their behavior as simply “skimming.” Responses to the question, “How often do you read these agreements?” further indicated that participants seldom—if ever—attempted to read CTAs ( $M = 2.18$ ,  $SD = 1.17$ , 95% CI [2.01, 2.35]). Not surprisingly, when asked to describe themselves as either a “reader” or a “non-reader,” 89.4% identified themselves as “non-readers.” Similar results persist if we divide participants into “readers” and “non-readers” on the basis of the Typical Reading Behavior Item so that readers include those who “skim looking mainly at headings and maybe read a little” as well as those who read somewhat carefully or read carefully (non-readers = 80.11%; readers = 19.89%). We use this latter binary variable in the analyses reported below because it distinguishes between those who try to engage in at least some reading from those who do not. Results in Study 1 are virtually identical when we use participants’ self-classification as a “reader” or “non-reader” rather than this constructed variable. (The primary exception is that the marginally significant relation between reading and race reported below becomes insignificant ( $B = 1.05$  (logit),  $SE = .713$ ,  $Wald = 2.16$ ,  $ns$ )).

**Acceptance.** The prevalence of “blind consent” to CTAs was also confirmed by the significant percentage of CTAs that participants reported accepting notwithstanding these low readership levels ( $Mdn = 98\%$ ;  $M = 89.4\%$ ,  $SD = 20.2\%$ , 95% CI [86.4%, 92.4%]). Interestingly, however, readers reported accepting a lower proportion of CTAs ( $Mdn = 95\%$ ,  $M = 80.8\%$ ,  $SD =$

28.9%, 95% CI [70.8%, 90.7%]) than non-readers ( $Mdn = 99%$ ,  $M = 91.8%$ ,  $SD = 16.8%$ , 95% CI [89.0%, 94.6%]),  $t(173) = 2.95$ ,  $p = .004$ ,  $d = .45$ , a result consistent with the hypothesis that the “reading” consumer might be more inclined to shop for CTA terms.

**Comprehension.** On the six-point item on which participants rated their understanding of CTAs, the median response was 3 ( $M = 2.7$ ,  $SD = 1.2$ , 95% CI [2.5, 2.9]), a seemingly high figure considering the low rate of readership. This result appears to be driven in part by readers who reported higher ratings of their knowledge than non-readers ( $M = 3.2$ ,  $SD = .99$ , 95% CI [2.9, 3.5]),  $t(174) = -2.68$ ,  $p = .008$ ,  $d = .41$ . Even among non-readers, however, the median response remained 3 ( $M = 2.6$ ,  $SD = 1.2$ , 95% CI [2.4, 2.8]). In all likelihood, both sets of participants overstated their comprehension. Indeed, participants who identified as iTunes users correctly answered on average just two of the six questions designed to evaluate their understanding of the basic provisions of the iTunes Terms of Service with no meaningful difference between readers ( $Mdn = 2$ ,  $M = 2.3$ ,  $SD = 1.65$ , 95% CI [1.3, 3.3]) and non-readers ( $Mdn = 2$ ,  $M = 2.18$ ,  $SD = 1.48$ , 95% CI [1.8, 2.5]),  $t(82) = -0.27$ ,  $ns$ . Similarly, asked whether CTAs authorized “the collection and sharing of information about you by the vendor,” 61% of participants answered “no,” even though CTAs commonly contain such an authorization (Federal Trade Commission, 2000). Readers and non-readers did not differ on this item,  $\chi^2(1) = 1.02$ ,  $ns$ .

**Beliefs about CTAs and non-readership behavior.** Consistent with our hypothesis, Table 1 indicates that participants consistently referred to a discrete set of beliefs about CTAs when asked to explain why they did not read. Overall, 90% of all non-readers listed at least one of these beliefs as a reason for their non-readership.

**Length.** As predicted, the belief that CTAs are *too long and time-consuming* was especially pronounced in participants’ open-ended explanations of their reading behavior, with



nearly one-third of non-readers making reference to it.

**Same thing.** The belief that CTAs *all say the same thing* also figured prominently in explanations for non-readership, with approximately 30% of non-readers making reference to it.

**No choice.** The belief that CTAs are offered on a take-it-or-leave-it basis and therefore offer *no choice* was also a common response, with nearly one-fifth of non-readers making reference to it. In addition, readership was related to the two questionnaire items designed to test this belief. In particular, frequency of reading was positively related to having “some control in negotiating terms,”  $r(178) = .20, p = .006$  and negatively related to having “no choice but to accept,”  $r(178) = -.19, p = .01$ .

**Irrelevance and apathy.** Nineteen percent of non-readers explained non-readership on the basis that CTAs were irrelevant to them either because they had no intention of doing anything in violation of a CTA or because CTAs pertain primarily to parties other than the consumer. Similarly, 19.0% of non-readers explained their behavior on the basis of apathy or indifference.

**No one reads.** The belief that *no one reads CTAs* had mixed results. Although no one referenced this belief in the open-ended item, respondents revealed a strong perception that most people do not read CTAs in the questionnaire items designed to test this belief. For example, 96.7% of participants classified “most people” as non-readers. Additionally, readership (Typical Reading Behavior Item) was positively correlated with perceptions of other people’s reading behavior (Typical Reading Behavior of Most People Item),  $r(175) = 0.19, p = .01$ .

**Reputation.** Importance of a vendor’s reputation as a factor influencing reading behavior was referenced by nearly 13% of non-readers; however, contrary to expectation, reference to reputation was significantly more pronounced among readers (38%) than non-readers,  $\chi^2(1) =$

8.34,  $p = .004$ ,  $\Phi = .22$ . Also, on the six-point reputation questionnaire item, readers were more likely to consider vendor reputation in accepting CTAs,  $t(174) = -2.54$ ,  $p = .01$ ,  $d = .39$  (readers:  $M = 4.9$ ,  $SD = 1.19$ , 95% CI [4.4, 5.3]; non-readers:  $M = 4.1$ ,  $SD = 1.70$ , 95% CI [3.8, 4.4]). Note, however, that the high means indicate that most participants generally reported using reputation in deciding whether to accept an agreement.

***Fairness, unenforceability, and incomprehensibility.*** Several of the beliefs about CTAs predicted to be associated with non-readership seldom appeared in participants' explanations. In particular, very few participants cited the belief that *CTAs are incomprehensible* or that *CTAs are generally fair*. With regard to the latter, participants reported agreeing with the questionnaire item, "the terms of these agreements are fair to me (i.e., the consumer)" ( $M = 4.2$ ,  $SD = 1.0$ , 95% CI [4.1, 4.3]). Yet this item did not reveal any meaningful association with reading behavior. Likewise, virtually no participants referenced the belief that *CTAs are unenforceable against me*. Nor did readers and non-readers differ in their fear of being sued by a vendor for violating the terms of a CTA ( $M = 1.98$ ,  $SD = .95$ , 95% CI [1.84, 2.12]),  $t(174) = -.51$ , *ns*. Readers, however, were more inclined to believe a CTA would be enforced if one were sued for violating its terms,  $t(173) = -2.59$ ,  $p = .01$ ,  $d = .39$  (readers:  $M = 4.5$ , or 75% likelihood,  $SD = 1.17$ , 95% CI [4.1, 4.9]; non-readers:  $M = 3.8$ , or 56% likelihood,  $SD = 1.45$ , 95% CI [3.6, 4.1]).

**Participant characteristics and non-readership behavior.** We used logistic regression to test the association of reading behavior (1 = *reader*; 0 = *non-reader*) with individual differences, demographic characteristics, and internet use. No significant associations were detected for any of the individual difference measures (i.e., trust, need for cognition, mindfulness, Big Five traits) except for extraversion ( $B = -.305$  (logit),  $SE = .12$ , Wald = 6.86,  $p = .009$ ). Among demographic variables, only race appeared to have some association with

reading behavior. As compared to Whites, Blacks were somewhat more likely to indicate that they typically engaged in some form of reading ( $B = 1.16$  (logit),  $SE = .61$ ,  $Wald = 3.62$ ,  $p = .06$ ). Analyses revealed no other significant associations between whether a participant was a reader or non-reader and any of the following characteristics: gender, age, or SES. Lastly, reading behavior was not associated with past exposure to CTAs or with proxies for past exposure to CTAs (e.g., number of on-line purchases per month).

## **Discussion**

As predicted, participants reported rarely reading CTAs notwithstanding the fact that they overwhelmingly click “I agree” when confronted with them on-line. Moreover, Study 1 revealed that participants have little comprehension of the terms to which they have agreed. This latter finding, however, was somewhat at odds with participants’ own ratings of their level of understanding, suggesting participants may have been reluctant to acknowledge their lack of knowledge. If so, this reluctance would also help account for the tendency of so many participants to explain their non-readership on the basis that CTAs “all say the same thing.” Accordingly, while Study 1 supports the conventional wisdom that consumers regularly engage in the practice of blind consent, our findings suggest participants may not be comfortable with acknowledging the degree to which it impairs their understanding of a CTA.

The results also provide several insights into the types of factors that might contribute to non-readership. As expected, participants referred to a number of common, pronounced beliefs about CTAs in explaining their non-readership that are generally consistent with a rational choice decision-making paradigm. In addition to the notion that *CTAs all say the same thing*, the most commonly noted beliefs included: *CTAs are too long* and reading them would take too much time and effort to read, CTAs are offered on a take-it-or-leave-it basis such that consumers

have *no choice* but to accept their terms, and *CTAs are irrelevant* to them. Moreover, a significant number of participants explained their lack of readership on the basis of simple apathy, which may also reflect the belief that *CTAs are irrelevant*.

The belief that *no one reads CTAs* and that *vendor reputation* can substitute for reading had mixed associations with reported reading behavior. While participants made no direct reference to the behavior of others when asked to explain their behavior, the association between how participants classified their own reading behavior and how they classified the readership of “most people” suggests participants may have also been influenced to a lesser extent by the notion that *no one reads CTAs*. As predicted, participants made common reference to the importance of vendor reputation when explaining their reading behavior. Its prevalence among readers, however, makes it difficult to ascertain whether participants use reputational considerations as a substitute for reading as suggested by Katz (1998). In this regard, this latter finding also highlights an important limitation of Study 1 in terms of identifying what role beliefs about CTAs play in determining non-readership: because even “readers” chose to read less than all of a CTA, the beliefs identified in Study 1 can at most be said to correlate with a tendency to read less than all of a CTA. As a result, the question of whether these beliefs about CTAs might cause more absolute non-readership must be left to Study 2.

Lastly, several of the beliefs about CTAs predicted to be associated with non-readership appeared to have very little resonance with participants. In particular, very few participants made any reference to the belief that *CTAs are generally fair* to consumers or that *CTAs are not enforceable*. Nor did participants explain their non-readership on the basis that they believed *CTAs are incomprehensible* notwithstanding some concern among commentators that vendors might use “legalese” to deter contract reading by consumers (Korobkin, 2003). The fact that

participants were college students, however, could have made them less susceptible to this latter belief, suggesting that it might still persist among non-college educated individuals.

In terms of identifying correlates of reading behavior, one notable finding was the extent to which non-readership cuts across many personality types and demographic characteristics, the primary exception being the association with extraversion. In light of research documenting a positive association between extraversion and overconfidence (Schaefer, Williams, Goodie, & Campbell, 2004), a likely explanation for this result is that our measure for extraversion may implicitly detect overconfidence. If so, this result would suggest that for some individuals, non-readership may reflect a form of overconfidence bias in which a CTA is perceived to be a low risk, immaterial document. Aside from this finding, however, no robust associations were detected between reading behavior and any of the other personality traits or other measures (proclivity to trust, need for cognition, mindfulness), indicating that in the case of non-readership of CTAs, beliefs about CTAs may overwhelm individual differences.

## **Study 2**

Building on Study 1's identification of the prevailing beliefs about CTAs that might affect CTA readership, Study 2 systematically examined the causal link between these beliefs and reading behavior. Specifically, we hypothesized that if the general beliefs about CTAs identified in Study 1 were in fact affecting the decision to read or not read (e.g., by influencing the perception of the costs and benefits of reading), changing these beliefs for a particular CTA should result in an increase in the readership of the agreement. We further hypothesized that any increase in readership should yield greater comprehension of the CTA, particularly where the CTA was presented in a short, readable format. Lastly we hypothesized that by increasing readership, participants would be more likely to identify objectionable terms, thereby producing

an association between readership and contract rejection.

Based on the results from Study 1, we expected that the incremental effect on reading behavior of different beliefs about CTAs would differ in magnitude. In light of the common and significant importance participants placed on the belief that *CTAs are too long*, we expected that changing the perception of a CTA from being long and time-consuming to being short and skimmable would have the greatest effect on increasing readership. Manipulating the perception of the CTA to counteract the beliefs that *CTAs all say the same thing*, that they *are irrelevant to me*, and that they offer *no choice* was also expected to increase readership regardless of whether the CTA was long or short. We also expected that manipulating the perception of the CTA to counteract the belief that *no one reads CTAs* would increase readership; however, we expected the effect would be modest in light of the mixed results found in Study 1 with respect to this belief. Lastly, creating a perception that the CTA was being offered by a “reputable” vendor was expected to *decrease* readership for both long and short CTAs. See Table 2 for a summary of these manipulations and their hypothesized result on readership.

## **Method**

A 2 (Length Format: long *vs.* short) x 6 (Note Version: standard *vs.* most people read CTAs *vs.* CTA provides important, relevant information *vs.* CTA provides unique terms *vs.* CTA can be modified *vs.* CTA offered by reputable vendor) factorial between-groups design was employed. The standard condition consisted of a modified version of a form contract: the iTunes CTA. The long form of the standard condition served as the “control” condition.

**Participants.** Participants were 257 undergraduate students at a large public university in the southeastern United States who participated for class credit. The mean age of the participants was 18.9 years ( $SD = 2.76$ ), 81% of the participants were female, and 78.8% were White (9.0%

Black, 8.6% Asian, 0.9% Latino, 2.7% Other).

### **Materials and procedures.**

*PDM website and manipulations.* Participants were invited to register and use an on-line music website called “PublicDomainMusic.com” (PDM) in which they were presented with a CTA in connection with registering for the service. A cover story was used in which participants were told they would be participating in a usability study of a new on-line music website. Participants were informed of the actual purpose of the study during debriefing. The PDM website was specially designed for purposes of this study to replicate the experience of registering for an on-line music website. To this end, participants were required to register on the site using the interface set forth in Appendix A. Given the risk that participants might not read the CTA because they felt uninvested in the experience and the need to replicate real-life registration, the site required that participants enter information for all entries (name, email address, unique userid, and password). No personal information was retained by the server or on the local disk drive.

As can be seen in Appendix A, the last section of the registration page contained a statement regarding the CTA that would follow (the “Note”). We used the Note to counteract each of the beliefs about CTAs hypothesized to affect readership of the CTA for PDM other than the belief that *CTAs are too long and time-consuming*. An administrator of the study programmed the site to choose randomly one of six Notes (numbered 1-6) for each participant, with each Note (other than the control condition) designed to manipulate one of the non-length related beliefs about CTAs identified in Study 1 as contributing to non-readership (see Table 2). Additionally, to address our hypothesis that shortening the CTA would increase readership, the CTA that followed was randomly presented in one of two formats: long or short. The “long”

format was presented in a small, scrollable window and was virtually identical in content to the Terms of Use used by iTunes.com. The “short” format was presented as a bullet-point summary of the “long” format that summarized the material provisions of the full CTA. Users who were presented with the short format could also view the full CTA by clicking on a hyperlink for the full terms. Appendix B provides an image of the webpages that users viewed when presented with either the long format or the short format. Lastly, an additional feature of the PDM website applied to all participants who were presented with Note 5 (CTA can be modified). These users were given not only the choice to “accept” or “decline” but also a choice to “modify” the CTA. Participants who selected the modify option were then taken to a webpage (Appendix C) where they could modify select terms for a specified amount of money using a drop-down menu.

***Recording of CTA behavior.*** The PDM website collected data on each participant’s activities as he/she reviewed the CTA including the amount of time the participant spent reading the CTA and whether the participant accepted, declined or (if applicable) modified the CTA. Participants who clicked “I accept the Terms of Use” (either immediately or, if applicable, after modifying them) were then presented with a variety of music clips that they could select to have emailed to them. (Because no email addresses were recorded for privacy considerations, participants were informed during debriefing of where they could obtain without charge the music files they had selected.)

***Questionnaire.*** Finally, after their use of the website, all participants completed a questionnaire with items relating to their readership and comprehension of the CTA, as well as demographic information and information regarding their use of the Internet. We also asked questions to check the effectiveness of each manipulation. For *Note 2*, participants described “the reading behavior of most people when presented with the Terms of Use for



PublicDomainMusic.com” (1 = *do not read at all*, 6 = *read carefully*). For *Note 3*, they described “how relevant to you is the Terms of Use for PublicDomainMusic.com” (1 = *not very relevant*, 10 = *very relevant*). For *Note 4*, they were asked “how similar was the Terms of Use for PublicDomainMusic.com compared with one from other vendors?” (1 = *very different*, 10 = *very similar*). For *Note 5*, they reported agreement (1 = *disagree strongly*, 10 = *agree strongly*) with the statement, “With regard to the Terms of Use presented on the web site, I had some control in negotiating the terms.” For *Note 6*, they were asked to characterize PublicDomainMusic.com (1 = *very reputable*, 10 = *very disreputable*). For the length manipulation participants assessed the length of the Terms of Use (1 = *very short*, 10 = *very long*). As a robustness check, participants were also asked during debriefing what they recalled about the statement on the website that preceded the CTA.

*Self-reported reading behavior and comprehension.* To obtain information on how participants classified their reading behavior, we asked participants to complete the same Typical Reading Behavior Item used in Study 1. To gauge their comprehension, we developed 14 (4 multiple choice and 10 true/false) questions designed to examine their knowledge gained from the CTA (as opposed to common knowledge or common sense; e.g., “The music you download from PDM may be used in a home video.”).

*Internet use and demographics.* Finally, four items assessed importance of on-line usage, including using the Internet and using music web sites (1 = *not at all important*, 7 = *extremely important*). Responses were averaged together to form a composite. Participants also indicated the importance of understanding their legal rights on the same seven-point scale. The same demographic items were used as in Study 1, as well as information on whether participants had ever downloaded music from a music website and whether they owned an iPod or MP3 player.

*Experimental realism and suspicion.* Owing to the importance of having participants interact as realistically as possible with the PDM web site, participants were asked to engage with the web site as they would when surfing the Internet at home. Additionally, during debriefing all participants were probed for suspicion and questioned about their interaction with the PDM website to ensure that they believed it was a real test site, did not suspect the purpose of the study, and engaged with the site in a realistic way. No participants reported believing the website was fabricated for the study. Participants who suspected the experiment was designed to test readership of the CTA ( $n = 9$ ), reported having provided mostly or all false personal information on the registration page ( $n = 6$ ), or stated that the terms of the CTA were not binding because it was an experiment ( $n = 1$ ) were excluded from data analysis. One statistical outlier with a reading time of 900 seconds (11.5 SD over the mean) was also omitted, leaving 240 participants for analysis. Notably, the results reported in Study 2 (Table 4) remain substantially the same regardless of whether we include these participants, with any discrepancies relating to statistical inference rather than to valence or magnitude of the effect. (Specifically, upon including all participants in the regression analysis, the main and interacted effects of Note 3 on reading time become insignificant, the main effect of Note 5 on reading time becomes marginally significant (but the interacted effect remains significant), and the statistical significance of using the short version of the CTA on comprehension increases, while for rejection rate the significance becomes marginal.) The demographic composition of this sample does not diverge from the original sample.

## **Results**

Analyses were conducted in four steps. First, we checked the effectiveness of our manipulations of participants' perception of the CTA. Second, we explored the effect of these

manipulations on readership of the CTA. Third, we explored the effect of the manipulations on comprehension of the CTA's terms. Lastly, we examined the extent to which these manipulations affected the rate of acceptance of the CTA and, by extension, whether the manipulations might enhance one's willingness to "shop" terms.

**Manipulation Checks.** Analyses of manipulation checks indicated a significant association between the short version of the CTA and perception of the CTA as short ( $\beta = -.57$ ,  $t(225) = -10.37$ ,  $p < .0001$ ), and a significant association between the manipulation and the expected response to the checks for Note 3 ( $\beta = .17$ ,  $t(225) = 1.98$ ,  $p = .049$ ) and 5 ( $\beta = .31$ ,  $t(224) = 3.92$ ,  $p = .0001$ ). Results were more mixed with respect to Notes 2, 4, and 6. Regressions yielded non-significant effects in the expected direction for Notes 2 ( $\beta = -0.04$ ) and 4 ( $\beta = -0.05$ ) and in the unexpected direction for Note 6 ( $\beta = 0.06$ ). It is likely that responses to the check for Note 4 (CTA has different terms) were confounded by already having read (or skimmed) the CTA. For this reason, a more effective check for Note 4 is arguably the debriefing question, where a majority of participants' assigned to Note 4 (59%) recalled the manipulation statement. Likewise, for Note 6 (CTA offered by reputable vendor), while participants may have taken note of the reputation of the vendor (Google), the check may have picked up their appraisal of the reputation of the unknown company (PDM) after clicking through the website. Finally, with respect to Note 2 (most people read the CTA), even though most people recalled the manipulation ("Over 80% of all users ... report carefully reading the Terms of Use"), they may not have been convinced of its accuracy.

**CTA readership.** We used participants' time spent reading the CTA (as measured by the PDM website) to measure the effect of the manipulations on participants' readership of the agreement. As a robustness check, we also used participants' own assessment of whether they

read the CTA as a measure of participant readership (unreported). The results are qualitatively and quantitatively the same as when we used participants' time spent reading. Table 3 provides an overview of participants' time spent reading the CTA (measured in seconds) by the version of the Note and length of the CTA.

To analyze the effect of changing the perception of the CTA on participants' readership, we regressed the dependent variable of interest—participants' total time spent reading the CTA—on all six Notes. In addition, to capture the effect of contract length on readership as well as to assess whether the effect of the Notes was moderated by contract length, we added an interaction term in which each Note was interacted with length (1 = *short*; 0 = *long*). We also controlled for participants' gender, age, race, and socio-economic background as well as participants' typical CTA reading behavior, their attitudes about understanding their legal rights, their expressed importance of internet usage, their use of online music websites, and whether they owned an iPod/mp3 player. Because of positive skewness in the dependent variable, all analyses were conducted following a logarithmic transformation of time spent reading the CTA.

Table 4 presents the results of the regression analysis. Notes 3 (CTA is relevant to you), 4 (CTA has different terms), and 5 (CTA can be modified) had a significant positive effect on participants' time spent reading the CTA. In terms of the incremental effect of these three conditions, assigning a participant to Note 3 increased readership by approximately 14 seconds on average compared to the Control (long, standard) Condition, holding constant all covariates at their means (dichotomous variables were held constant at their modes). Notes 4 and 5 had an even greater incremental effect on participant readership, with Note 4 increasing readership by approximately 62 seconds and Note 5 increasing readership by approximately 24 seconds. By comparison, assigning a participant to Notes 2 (most people read the CTA) and 6 (CTA offered

by reputable vendor) had statistically insignificant incremental effects on readership of approximately 8 seconds and 2 seconds, respectively.

Similarly, using the short version of the CTA had a significant, positive effect on reading time (See Table 4). However, the effect of using the short version of the CTA depended on the Note. In particular, for Notes 2, 3, 4, and 5, the short version resulted in less time spent reading the agreement than the long version of the same Note. This is in contrast to Note 1 (the standard Note), where assigning participants to the short version of the CTA significantly increased readership. Thus, while using a shorter CTA increased readership relative to the Control Condition, this effect was not necessarily additive to the effect on readership achieved by manipulating in the Note one of the other widely held beliefs about CTAs.

In addition to these general findings, we also examined the extent to which modifying the prevailing beliefs about CTAs might affect reading behavior in light of participants' perception of themselves as either "readers" or "non-readers" of CTAs. As noted above, the Typical Reading Behavior Item was included in the questionnaire to measure whether participants generally viewed themselves as "readers" or "non-readers." Table 4 indicates that including this item as a covariate in the regression model reveals a significant relationship between self-reported typical readership and time spent reading the CTA. However, dropping this item from the model does not change the results for the experimental variables, suggesting that the results are not significantly affected by participants' typical reading behavior.

To isolate the effect of our manipulations on readers and non-readers, we ran a separate regression including all variables used in the original analysis, but we replaced the Typical Reading Behavior Item with a dichotomous variable indicating whether participants were typically "readers" or "non-readers" (0 = *non-reader*; 1 = *reader*). This latter variable was

determined based on responses to the Typical Reading Behavior Item so that readers (32.74%) included participants who typically “skim looking mainly at headings and maybe read a little” (25.66%) as well as those who “read somewhat carefully” (7.08%) and those who “read carefully” (0%) (non-readers = 67.26%; “do not read at all (simply click)” = 12.83%, “scroll without really reading anything” = 27.88%, “skim looking mainly at heading but do not really read anything” = 26.55%). This readership variable was then interacted with each experimental condition (i.e., length, Note, and length x Note). Examination of the interaction of this binary readership variable with experimental condition revealed a moderating effect of typical reading behavior on the relationship between experimental condition and time spent reading for Note 5 ( $B = -1.466$ ,  $\beta = -.30$ ,  $t(187) = -1.87$ ,  $p = .06$ ), and for the short version of the CTA ( $B = -1.682$ ;  $\beta = -.61$ ,  $t(187) = -2.27$ ,  $p = .02$ ). In other words, the effectiveness of these two conditions on increasing readership was isolated among those participants who traditionally do not read on-line agreements. However, given the few number of readers the three-way interaction may have insufficient power to reveal other significant moderating effects.

**CTA comprehension.** Data relating to participants’ comprehension of the CTA was taken from the questionnaire, which asked a series of questions about the contents of the CTA. Of the 240 participants in Study 2, 228 participants completed the portion of the questionnaire relating to their comprehension of the CTA. The quiz consisted of four multiple choice (a-d) and 10 true/false questions; therefore, if answering at chance, a participant’s score would be approximately 43%.

Not surprisingly, regression of quiz performance on time spent reading revealed a significant, positive relation ( $B = .077$ ,  $\beta = .54$ ,  $t(227) = 9.75$ ,  $p < .0001$ ). More important than aggregate time spent reading, however, was the length of the CTA. Table 5 provides an overview

of participants' quiz results by the version of the Note and the length of the CTA. Even though manipulating the Note version generally increased reading time (see Table 3), manipulation of the Note version for the long version of the CTA had little effect on quiz performance. In contrast, shortening the length of the CTA was uniformly associated with higher quiz scores for each Note version. Overall, across all Note versions participants given the short version of the CTA outperformed participants given a longer version by approximately 11% (Short-Version:  $M = 69.3\%$ ; Long-Version:  $M = 57.2\%$ ). These results persisted after controlling for potential confounding variables in our regression analysis in which only contract length had a significant effect on quiz performance (See Table 4). Thus, in contrast to the effect of the Notes on participants' readership, the greatest impact on participants' comprehension came from the overall length of the CTA.

**CTA acceptance rate.** Of the 240 participants, 13 (or 5%) declined to accept the CTA. Consistent with our hypothesis, a strong, positive association existed between readership and CTA rejection. In response to a questionnaire item asking participants whether they had read the CTA, all thirteen participants who rejected the CTA answered "yes,"  $\chi^2(1) = 6.73, p = .009, \Phi = 0.18$ . Likewise, a logistic regression of the decision to decline regressed on the amount of time spent reading the CTA revealed a strong, positive association ( $B = 1.4$  (logit),  $SE = .39$ ,  $Wald = 12.96, p < .001$ ). A mediation analysis, however, revealed that CTA comprehension did not mediate the relationship between time spent reading and the decision to decline, because the mediator was not significant in the full regression model. Following the methodology outlined in MacKinnon and Dwyer (1993), the mediated effect of comprehension was approximately 6.7% of the total effect of reading time on the likelihood of rejecting the CTA. Bootstrapped 95% confidence intervals confirmed that the mediated effect was not significant (95% CI [-.12, .25]).

Nonetheless, post-experiment interviews indicated that participants who declined the CTA were concerned with various provisions in the CTA, in particular provisions relating to PDM's sharing of participants' private information. Notably, the long and short version of Note 5—the only conditions where participants had an option to modify the CTA's privacy provisions—were the only conditions in which no participants elected to decline the CTA. (Of the nine participants who elected to modify the CTA, five changed the CTA's default privacy provision to prohibit PDM.com's sharing of personal information with third-parties.) In combination, these results suggest that the decision to decline the CTA might have reflected a deliberate decision to decline the agreement after discovering one or more objectionable terms.

Excluding the 100% acceptance rate for Note 5, each other Note had at least one participant reject the agreement. The greatest incidence of declines occurred when participants were assigned to Note 2 (most people read the CTA) ( $n = 6$ ), followed by Note 4 (CTA has different terms) ( $n = 3$ ), Note 3 (CTA is relevant to you) ( $n = 2$ ), Note 6 (CTA offered by reputable vendor) ( $n = 1$ ), and Note 1 ( $n = 1$ ). Of potentially greater significance in understanding the pattern of declines is the length of the CTA. Of the 13 declines, 10 (77%; Fisher's exact  $< .1$ ,  $\chi^2(1) = 2.96$ ,  $p = .09$ ,  $\Phi = .11$ ) were by participants assigned to a short version of the CTA. Table 4 presents regression results for each experimental manipulation on participants' probability of acceptance, holding constant other explanatory covariates. The results confirm a strong association between the short version of the CTA and participants' likelihood of rejecting the contract. None of the other experimental manipulations was significantly associated with rejection rates. Given the absence of rejections in certain conditions as well as the low rate of rejection in general, the regression results for acceptance should be interpreted with caution.

## **Discussion**



As predicted, changing the presentation of a CTA to counteract the prevailing beliefs about CTAs had a significant effect on participants' willingness to read the agreement. In contrast to the control condition, participants spent significantly more time reading the CTA for PDM when it was presented in a manner that suggested it was *short and skimmable*, that it had *different terms*, that it was *relevant*, and that it *could be modified*. Moreover, the results of Study 2 indicate that manipulating the widely-held beliefs that CTAs *are too long and time-consuming* and that they offer consumers *no choice* had the strongest effect on traditional "non-readers," effectively turning them (at least for the moment) into CTA readers. These results thus suggest that the decision to read or not read a CTA is determined largely through a rational choice framework in which these prevalent beliefs about CTAs (which generally affect the perceived costs and benefits of reading) may be important factors in deterring CTA readership. In addition, the possibility remains that the belief that *nobody reads CTAs* and a willingness to trust established companies may also contribute to CTA non-readership, although these results were not statistically significant.

Consistent with our hypothesis, the perceived length and readability of the CTA played a critical role in shaping participants' reading behavior. Significantly, while using the short version of the CTA increased readership compared to the control condition, it had the opposite effect when combined with Notes 2-5, which had independently resulted in greater readership. The fact that participants in these latter conditions appeared to use the short version to expedite their review of the CTA suggests that a speedy and efficient review of a CTA remains of paramount importance to individuals even when they might be inclined to engage with its terms.

Contract length also had the greatest effect on both contract comprehension and contract rejection. With regard to comprehension, only the short version of the CTA had any significant

effect on participants' general understanding of the CTA as measured by their quiz scores notwithstanding an overall increase in readership associated with the long versions of Notes 2-5. A likely explanation for this result is that even where readership of the long version increased, the CTA's length and complexity remained an obstacle for participants' comprehension compared to the more digestible short version. As a result, once participants were prompted to invest additional time in reading the CTA, they got a considerably greater return on this investment when given a short rather than a long version of the agreement.

Similarly, only the short version of the CTA had any significant effect on the likelihood that a participant would reject it. This result most likely reflects the greater ability of participants in the short condition to comprehend the terms of the CTA and, accordingly, engage in a more deliberate assessment of the agreement. In this regard, Study 2 supports the suggestion of Korobkin (2003) that presenting contract terms in a more readable format should increase their salience and thereby enhance consumer shopping for the most optimal provisions.

Lastly, Study 2 indicates that by presenting readable, more salient contract terms, vendors need not lose consumers who might object to them. Notably, even though Note 5 significantly increased participants' reading of the contract, the fact that participants could modify objectionable terms for a fee made it the only Note where greater readership was *not* associated with greater CTA rejection. On the contrary, Note 5 was the only Note with 100% acceptance for both the long and short versions of the CTA. These results thus suggest that vendors who encourage CTA readership *and* offer more flexible contract options might capture some of the consumer surplus that would be generated by offering more individualized contract terms.

### **General Discussion**

Three central research questions motivated this study of CTAs: Do people read CTAs and

shop for the most desirable contract terms? If not, can the psychology of non-readership be explained by examining the prevailing beliefs and assumptions about CTAs in general? Lastly, to the extent certain beliefs and assumptions about CTAs contribute to non-readership, would modifying these beliefs and assumptions enhance contract readership and comprehension and thereby enhance consumer shopping of contract terms?

Consistent with both conventional wisdom and academic commentary, Study 1 confirmed that individuals overwhelmingly agree to CTAs without either reading or understanding their terms. Moreover, Study 1 suggested that a discrete number of common beliefs about CTAs play an important role in explaining the phenomenon of blind consent by affecting individuals' perceptions of the costs and benefits of reading. In particular, the notion that CTAs *all say the same thing*, *CTAs are too long and time-consuming*, *CTAs offer no choice*, and *CTAs are irrelevant* each appeared repeatedly as an explanation for non-readership.

Notably, at least in our sample, non-readership cut across virtually all hypothesized correlates, including variables for individual differences, participants' use of the Internet, and demographics. Of particular interest was the absence of any significant association between participants' typical reading behavior and participants' need for cognition or mindfulness. Given the emphasis on limited human cognition as an explanation for non-readership (e.g., Korobkin, 2003), one might expect some degree of association between reading behavior and these two measures.

At its most general level, the absence of association between these measures regarding the motivation to process information and readership would seem to call into question whether the perception of the cognitive load of processing the terms of a CTA is a primary deterrent to readership. On the contrary, the reluctance of participants to acknowledge their ignorance of

CTAs suggests that for many, comprehending CTAs is important. Instead, the prevalence of the belief that CTAs *all say the same thing* and that they *are irrelevant* indicates that it is most likely a perception that there is simply no new information to be gained in reading CTAs—rather than an aversion to processing the contents of a particular CTA—that is a central deterrent to reading. This conclusion is further suggested in Study 2 in which manipulating the perception that CTAs *all say the same thing* (Note 4) and that CTAs *are irrelevant* (Note 3) each had a significant, positive effect on the readership of even the long version of the CTA. In short, both studies indicate that non-readership does not necessarily reflect “an implicit surrender to cognitive limitations” and “a preference *not to care*” (Ben-Shahar 2009). Rather, participants seem to care quite a bit about understanding CTAs as reflected in their willingness to undertake additional reading in those conditions where it appeared there was something to learn from it.

Similarly, Studies 1 and 2 suggest that the widely-held belief that CTAs offer one *no choice* but to accept or reject the terms of a CTA also encourages automatic non-reading behavior. Again, the results are at odds with the role traditionally ascribed to limited cognition within the rational choice framework as applied to non-readership. If consumers prefer to avoid reading to avoid difficult decisions about remote contract risks, one might expect non-readership to persist in Study 2 where participants were given the option to modify the CTA with both the long and short versions of Note 5. Instead, readership increased significantly compared to the control condition, with approximately one-half of the participants in these two conditions electing to modify the CTA. In summary, to the extent limited cognition plays a role in non-readership, it thus appears to operate through a desire to economize processing costs where it is perceived that there is no new information to process rather than a perception that one simply lacks the ability to process it at all or a more general aversion to information processing.

Nonetheless, while Studies 1 and 2 suggest consumers might be willing to undertake the cognitive challenge of reading where doing so would be informative or provide them with contractual choice, the studies also indicate that the time associated with reviewing a CTA remains a critical deterrent to reading. The perception that CTAs *are too long and time-consuming* was the most prevalent explanation for why participants in Study 1 engaged in non-readership. Likewise, in Study 2 using the short version of the CTA along with Notes 2-5 led participants to spend less time reading the CTA than when presented with the same Note and the long version of the CTA. These results indicate that even where the Note resulted in an increased willingness to engage with the CTA, participants used the brevity of the short version to expedite their review of the terms rather than to engage in a more thorough assessment. Even so, the significant, positive effect on readership when Note 1 (the standard Note) was followed by the short form of the CTA suggests once again that consumers are not necessarily averse to the cognitive challenge of assessing terms, provided they can do so in an expedited fashion. Significantly, these results are also consistent with real-world findings (Bakows et al., 2009; Marotta-Wurgler, 2010) revealing that for a large sample of software purchases, consumers were more likely to view the software's end-user license agreement where a vendor's website minimized the number of internet "clicks" required to access to it.

In contrast to readership, increasing comprehension posed a greater challenge. In Study 2, Notes 2-5 each increased readership of the long version of the CTA, but participants' comprehension was only marginally better than in the control condition. This suggests that the traditional format and language of ordinary CTAs may be difficult to understand for those participants willing to engage with it. In contrast, the time spent reading the short version yielded more considerable improvements in comprehension, indicating that providing a short summary

of terms (in addition to a link to the entire CTA) may enhance both readership and comprehension more than simply encouraging readership of ordinary CTAs. In general, these findings suggest that current proposals to require advance disclosure of CTA terms will have their greatest positive effect on CTA comprehension when they are coupled with a summary of terms. For similar reasons, these findings suggest that in the related context of consumer credit law, recent legislative efforts to require more streamlined summary disclosures may have a positive effect on consumer knowledge of the terms on which they are being offered credit.

Lastly, with regard to consumer shopping of terms, Study 1 indicated that most participants reported a fairly robust belief in the possibility of shopping contract terms; however, the overall low rate of reported readership in Study 1 suggests that (like self-reported comprehension) shopping was more of an ideal than a reality. In contrast, by manipulating some of the prevailing beliefs about CTAs in Study 2, participants not only read more but also demonstrated a greater likelihood of declining the CTA. This was especially true where participants were presented with a short form of the CTA, where the greater comprehension afforded by the more readable format appeared to make the contract terms more salient and meaningful to participants. In combination, Studies 1 and 2 thus suggest that by impairing readership of CTAs, the prevailing beliefs about CTAs examined in this paper likely impair the type of idealized contract shopping that many participants believe is possible. Indeed, that consumers might engage in more contract shopping if induced to read a CTA is perhaps most directly indicated by the zero rate of rejection by those participants assigned to Note 5 in Study 2: When given the chance to modify the CTA, these participants not only read more of the CTA but often used the modification option to purchase a more desirable contract.

### **Limitations and Future Research**

Although the studies reported here shed light on the phenomenon of blind consent, several factors limit the generalizability of our findings. First, both studies were limited to examining the contracting behavior of undergraduate students, generally in the context of on-line music websites. Given that college-age students are a key demographic for these websites, this approach yields fairly robust insights into the behavior of many consumers of music websites, but provides more limited insights into the contracting behavior of other consumers or even the same consumers in a different context. For instance, compared to older, more mature individuals, college-age students may have had fewer adverse experiences with businesses or the Internet, which could incline them to be more trusting of on-line vendors. Alternatively, college students might have had fewer experiences with commercial contracts or they might otherwise underappreciate the legal significance of entering a contract. Either of these traits might contribute to a more pronounced tendency to engage in blind consent. In addition, college students may also differ in their cognitive traits from non-college educated individuals. To the extent this is the case, our findings regarding the absence of a relation between need for cognition and readership may not necessarily hold within a non-college educated population. Accordingly, future research should consider how cognitive traits and beliefs about CTAs affect older, more experienced, or non-college educated populations as well as how they affect contracting behavior outside the context of on-line music. In this regard, however, it is worth noting the congruence of this paper's experimental findings with those of Bakows et al. (2009) and Marotta-Wurgler (2010), which provide reason to believe that the relation between contract accessibility and readership identified here may extend beyond the context of on-line music.

Second, identifying the causal relationship between widely-held beliefs about CTAs and CTA reading behavior is complicated by the difficulty of eliminating the influence of *novelty* in

each experimental manipulation. Considering that many CTAs are presented in a small, scrollable box, it is possible that simply presenting *any* CTA in a different format might alter ordinary reading behavior. The results in Study 2 would therefore reflect not only the effect of particular beliefs about CTAs but also the influence of simply presenting the CTA in a distinctive manner. To the extent this is true, it becomes more difficult to estimate accurately the effect of manipulating the prevailing beliefs about CTAs used in Study 2 given that reading behavior might change as readers became more accustomed to the new CTA. In light of this possibility, future studies might employ a longitudinal design to measure the effect of manipulating the perception of a CTA on individual reading behavior at several points in time.

Third, although these studies question the prevailing limited cognition theory of CTA non-readership, neither study was designed to test whether other cognitive limitations and biases might impair meaningful assent to a CTA (see, e.g., Bar-Gill, 2004; Korobkin, 2003; Stark & Chopline, 2010). On the contrary, the negative association between extraversion and readership in Study 1 leaves open the possibility that for some participants, the inclination to rush through a CTA may reflect a form of overconfidence bias in which the CTA is perceived to be a low risk, immaterial document. For similar reasons, cognitive processes may inhibit a meaningful appreciation of those contract terms that are actually read. Future studies should therefore expressly consider how these types of cognitive biases might moderate the effect of increasing CTA readership on CTA comprehension and CTA shopping. Likewise, future research should also consider how consumer emotion might moderate the effect of CTA readership on CTA comprehension and CTA shopping. In the context of federally mandated consumer credit disclosures, for example, Wiener et al. (2007) found that for some consumers, the enhanced disclosures resulted in negative affect and corresponding mood repair leading consumers to



engage in more (rather than less) shopping to alleviate the negative emotional response precipitated by the disclosures. To the extent CTA readership results in similar awareness of contract risks, emotion may play a comparable role in shaping consumer behavior.

Finally, in addition to examining these limitations, future research might also address more directly the doctrinal and regulatory implications of this article's findings. Doctrinally, for instance, the findings regarding the relation between readership and comprehension levels and certain of the contract manipulations could have important consequences for courts considering whether particular contract provisions—such as arbitration provisions, privacy policies, or damage waivers—are legally unconscionable. Courts hearing such unconscionability challenges generally ask whether the contract was formed in a manner indicating both procedural unconscionability (such as whether the challenged terms were fairly presented and whether consumers had a choice of alternative terms in the marketplace) and substantive unconscionability (such as whether the term appears to the court as unreasonably harsh or one-sided) (Lord, 2010). Given the positive effect on readership of using a short summary of terms, evidence that a vendor included a challenged provision within a summary of terms might therefore represent an important factor in a court's consideration of procedural unconscionability. So too might the use of a modifiable contract in light of the positive effect on readership and shopping of Note 5. For similar reasons, vendors, legislatures, and regulatory agencies concerned with increasing consumer awareness of particular contract provisions—such as privacy policies following the recent iPhone tracking controversy or waivers of classwide arbitration following the Supreme Court's recent opinion in *ATT Mobility v. Concepcion*—might also use this paper's findings as a roadmap for increasing the probability of contract readership and contract shopping. At the same time, however, the incremental effect sizes of our

manipulations on both readership and comprehension levels add an important empirical dimension to the on-going debate about the wisdom of relying on a disclosure-based approach to contract regulation (Ben-Shahar & Schneider, 2011).

## **Conclusion**

Notwithstanding these limitations, the present studies suggest that a distinct set of widely-held beliefs about CTAs play an important role in the phenomenon of blind consent. By deterring CTA reading, the beliefs identified in Study 1 effectively impaired participants from engaging with contract terms, controlling for a wide range of covariates. Yet for similar reasons, by manipulating the form in which the CTA was presented, these studies suggest it is possible to minimize this deterrent and thereby increase CTA readership and, to a lesser extent, CTA comprehension and CTA shopping. More generally, this paper also suggests the potential for social psychological analysis to provide new insights into other settings characterized by consumers' unwillingness to engage with disclosed terms, such as consumer credit law, consumer health law, and federal securities regulation. Indeed, given the emphasis in these areas on mandatory disclosure as a primary means of risk regulation, the results presented here suggest that social psychological analysis may provide a potentially powerful framework with which to examine the overall efficacy of mandatory disclosure as a regulatory device.

## References

- American Law Institute (2010). *Principles of the law of software contracts*. St. Paul, MN: American Law Institute Publishers.
- Bakows, Y., Marotta-Wurgler, F., & Trossen, D.R. (2009). Does anyone read the fine print? A test of the informed minority hypothesis using clickstream data. New York University School of Law Working Paper.
- Bar-Gill, O. (2004). Seduction by plastic. *Northwestern University Law Review*, 98, 1373-1434. Retrieved from <http://www.law.northwestern.edu/lawreview/>
- Bar-Tal, D. (2000). *Shared beliefs in a society: Social psychological analysis*. Thousand Oaks, CA: Sage.
- Becher, S.I., & Unger-Aviram, E. (2008). Myth and reality in consumer contracting behavior. College of Management-Academic Studies working paper.
- Ben-Shahar, O. (2009). The myth of the ‘opportunity to read’ in contract law. *European Review of Contract Law*, 5, 1–28. doi:10.1515/ERCL.2009.1
- Ben-Shahar, O. & Schneider, C.E. (2011). The Failure of Mandated Disclosure. *University of Pennsylvania Law Review*, 159(2), 649-746. Retrieved from <http://www.pennumbra.com/issues/pdfs/159-3/Ben-Shahar.pdf>
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822–848. doi:10.1037/0022-3514.84.4.822
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116-131. doi:10.1037//0022-3514.42.1.116
- Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition.

- Journal of Personality Assessment*, 48, 306-307. doi:10.1207/s15327752jpa4803\_13
- T Conneally. (2011, April 14). Two New Internet Privacy Bills Enter Congress: How They Differ [Web log post]. Retrieved from <http://www.betanews.com/article/Two-new-Internet-privacy-bills-enter-Congress-How-they-differ/1302802841>
- Eisenberg, M. (1995). The Limits of Cognition and the Limits of Contract. *Stanford Law Review*, 47, 211-258. doi:10.2307/1229226
- Epstein, R. (2006). Contract not regulation: UCITA and high-tech consumers meet their consumer protection critics. In J. Winn (Ed.), *Consumer Protection in the Age of Information Economy* (205-209). Burlington: Ashgate.
- Federal Trade Commission (2000). Privacy online: Fair information practices in the electronic marketplace: A report to Congress. Retrieved from <http://www.ftc.gov/reports/privacy2000/privacy2000.pdf>
- Fillieule, R. (1996). Frames, inferences, and rationality. *Rationality and Society*, 8, 151-165. doi:10.1177/104346396008002002
- Fraser, C., & Gaskell, G. (Eds.) (1990). *The social psychology of widespread beliefs*. Oxford: Clarendon Press. doi:10.1177/104346396008002002
- Gefen, D., Karahanna, E., and Straub, D. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27, 1, 51–90. Retrieved from <http://www.misq.org/>
- Gillette, C.P. (2004). Rolling contracts as an agency problem. *Wisconsin Law Review*, 2004, 679-721. Retrieved from <http://hosted.law.wisc.edu/wordpress/lawreview/>
- Gomulkiewicz, R. (2004). Getting serious about user-friendly mass market licensing for Software. *George Mason Law Review*, 12, 687-718. Retrieved from <http://www.georgemasonlawreview.org/>

- Gosling, S.D., Rentfrow, P.J., & Swann, W.B., Jr. (2003). A very brief measure of the Big Five personality domains. *Journal of Research in Personality*, 37, 504–528.  
doi:10.1016/S0092-6566(03)00046-1
- Hartley, J. (2000). Legal ease and 'legalese.' *Psychology, Crime & Law*, 6(1-2), 1-20.  
doi:10.1080/10683160008410828
- Hillman, R. A. (2006a). Online consumer standard form contracting practices: A survey and discussion of legal implications. In J. Winn (Ed.), *Consumer Protection in the Age of Information Economy* (pp. 283-311). Burlington: Ashgate.
- Hillman, R. A. (2006b). On-line boilerplate: Would mandatory website disclosure of e-standard terms backfire? *Michigan Law Review*, 104, 837-856. Retrieved from <http://www.michiganlawreview.org/>
- Hillman, R.A., & Barakat, I. (2009). Warranties and disclaimers in the electronic age. *Yale Journal of Law and Technology*, 11, 1-69. Retrieved from <http://www.yjolt.org/>
- Hillman, R.A. & Rachlinski, J.J. (2002). Standard-form contracting in the electronic age. *New York University Law Review*, 77, 429-495. doi:10.2139/ssrn.287819
- Katz, A.W. (1998). Standard form contracts. In P. Newman (Ed.) *The New Palgrave Dictionary of Economics and the Law* (Vol. 3). London: Macmillan. doi:10.2139/ssrn.41320
- Korobkin, R. (2003). Bounded rationality, standard form contracts, and unconscionability. *University of Chicago Law Review*, 70, 1203-1295. doi:10.2307/1600574
- Kühberger, A. (2002). The rationality of risky decisions: A changing message. *Theory & Psychology* 12, 427-452. doi:10.1177/0959354302012004293
- Kunz, C. L., Del Duca, M. F., Thayer, H., & Debrow, J. (2001). Click-through agreements: Strategies for avoiding disputes on validity of assent. *Business Lawyer*, 57, 401-434.

- Retrieved from <http://www.abanet.org/buslaw/buslawyer.html>
- Landis, J.R., & Koch, G.C. (1977). The measurement of observer agreement for categorical data. *Biometrics* 33, 159-174. doi:10.2307/2529310
- Lemley, M. (2006). Terms of Use. *Minnesota Law Review*, 91, 459-483. Retrieved from <http://www.law.umn.edu/lawreview/index.html>
- Lewin, K. (1943). Defining the 'field at a given time'. *Psychological Review*, 50(3), 292-310. doi:10.1037/h0062738
- Lord, R. A. (Ed.). (2010). *Williston on contracts* (4th ed.). Rochester, NY: Lawyers Cooperative Publishing.
- Lorsen, L. (2004). Slaying the leather-winged demons in the night: Reforming copyright owner contracting with clickwrap misuse. *Ohio Northern University Law Review*, 30, 495-535. Retrieved from <http://www.law.onu.edu/organizations/LawReview/index.htm>
- MacKinnon, D. P., & Dwyer, J. H. (1993). Estimating mediated effects in prevention studies. *Evaluation Review*, 17, 144-158. doi: 10.1177/0193841X9301700202
- Marotta-Wurgler, F. (2010). Does Disclosure Matter? *New York University Law and Economics Working Papers*. Paper 242. Retrieved from [http://lsr.nellco.org/nyu\\_lewp/242](http://lsr.nellco.org/nyu_lewp/242)
- Masson, M. E. J., & Waldron, M. A. (1994). Comprehension of legal contracts by non-experts: Effectiveness of plain language redrafting. *Applied Cognitive Psychology*, 8(1), 67-85. doi: 10.1002/acp.2350080107
- McKnight, D.H., Choudhury, V., & Kacmar, C. (2002a). The impact of initial consumer trust on intentions to transact with a Web site: A trust building model. *Journal of Strategic Information Systems*, 11 (3-4), 297-323. doi:10.1016/S0963-8687(02)00020-3

- McKnight, D. H., Choudhury, V. & Kacmar, C. (2002b). Developing and validating trust measures for e-commerce. *Information Systems Research*, 13, 334-359.  
doi:10.1287/isre.13.3.334.81
- Mellers, B.A., Schwartz, A., & Cooke, A.D.J. (1998). Judgment and Decision Making. *Annual Review of Psychology*, 49, 447-777. doi:10.1146/annurev.psych.49.1.447
- A Munchbach (2011, April 20). Your smartphone is tracking you, and you said it was okay. [Web log post]. Retrieved from <http://www.bgr.com/2011/04/20/your-smartphone-is-tracking-you-and-you-said-it-was-okay/>
- Olson, G. M., & Olson, J. S. (2003). Human-computer interaction: Psychological aspects of the human use of computing. *Annual Review of Psychology*, 54, 491-516.  
doi:10.1146/annurev.psych.54.101601.145044
- Pennington, R., Wilcox, H.D., & Grover, V. (2003). The role of system trust in business-to-consumer transactions. *Journal of Management Information Systems*, 20, 3, 197–226.  
Retrieved from <http://www.jmis-web.org/>
- People v. Network Associates, Inc., 195 Misc.2d 384, 758 N.Y.S.2d 466 (2003).
- Radin, M. (2000). Humans, computers, and binding commitment, *Indiana Law Journal*, 75, 1125-1162. Retrieved from <http://www.law.indiana.edu/ilj/>
- Rakoff, T. (1983). Contracts of adhesion: An essay in reconstruction. *Harvard Law Review*, 96, 1173-1284. doi:10.2307/1341009
- Ribstein, L. & Kobayashi, B. (2002). State regulation of electronic commerce, *Emory Law Journal*, 51, 1-82. doi:10.2139/ssrn.294466
- Rosenberg, M. (1956). Misanthropy and political ideology. *American Sociological Review*, 21, 690-695. doi:10.2307/2088419

- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology*. New York: McGraw-Hill.
- Schaefer, P. S., Williams, C. C., Goodie, A. S., & Campbell, W. K. (2004). Overconfidence and the Big Five. *Journal of Research in Personality*, 38, 473–480.  
doi:10.1016/j.jrp.2003.09.010
- Schwartz, A. & Wilde, L. (1983). Imperfect information in markets for contract terms: examples of warranties and security interests. *Virginia Law Review* 69, 1387-1484.  
doi:10.2307/1072774
- Slovic, P., 1995. The construction of preference. *American Psychologist*, 50, 364-371.  
doi:10.1037//0003-066X.50.5.364
- Stolle, D. P. (1998). *A social scientific look at the effects and effectiveness of plain language contract drafting* (Unpublished dissertation). University of Nebraska, Lincoln.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403–421.  
doi:10.1037/0033-295X.110.3.403
- Wiener, R., Holtje, M., Winter, R., Cantone, J., Gross, K., & Block-Lieb, S. (2007). Consumer credit card use: The roles of creditor disclosure and anticipated emotion. *Journal of Experimental Psychology: Applied*, 13(1), 32-46. doi:10.1037/1076-898X.13.1.32



Table 1

*Self-Reported Explanations for Non-Readership in Study 1*

Coding category	Example	Percent of responses
CTAs are too long and time-consuming	“it takes a really long time”	31.3%
CTAs all say the same thing	“Because they are all the same and boring.”	29.9%
CTAs offer no choice but to accept	“if you want to get to the desired ‘page,’ you must agree”	23.1%
CTAs are irrelevant to me	“I figure as long as I am reasonably careful to treat the software in a legal fashion, I won’t violate anything in the CTA’s that I haven’t read”	19.0%
Apathy	“I just do not care enough to read them”	19.0%
Reputation and trust	“If it’s a well known company, I trust them.”	12.9%
CTAs are incomprehensible	“They tend to be badly written legal style.”	6.8%
CTAs are generally fair	“I generally... figure it’s not anything too crazy that they are asking me about so I just accept”	4.1%
CTAs are not enforceable against me	“I scroll through without reading the agreement because it is just legal matters that I would hire a lawyer to defend me if I broke anything in the agreement or because I don’t care if the agreement is broken”	0.7%

Note. Participants who indicated that they were readers also referred frequently to this same set of beliefs. Among readers (n = 29), 21% referenced CTAs as being *too long*, 28% referenced CTAs as being *all the same*, and 38% referenced vendor’s *reputation* as factors affecting their reading behavior. In addition, readers explained their behavior as motivated by a general desire to understand the CTA (24%) or to search for terms that might compromise their privacy or impose on them unwanted software (17%).

Table 2

*Prevalent Beliefs About CTAs and Experimental Manipulations Used in Study 2*

<b>Introductory Notes Used to Alert Participants of CTA</b>				
Note #:	Belief about CTAs addressed	Experimental manipulation	Statement on registration page	Expected result on readership
1 (Standard)	None	None	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use set forth on the following page. Please read it carefully. Click below to continue to the Terms of Use.	No effect
2	No one reads CTAs	Most people read CTAs	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use as set forth on the following page. Please read it carefully. Over 80% of all users of this service report carefully reading the Terms of Use, which is roughly consistent with the average for all Internet users. Click below to continue to the Terms of Use.	Increase
3	CTAs are irrelevant to me	CTA provides important information that is relevant to you	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use as set forth on the following page. Please read it carefully. It contains important information concerning your ability to use this service, legal rights that YOU have against US, and legal rights that WE have against YOU. Click below to continue to the Terms of Use.	Increase
4	CTAs all say the same thing	CTA provides terms that are unique	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use set forth on the following page. Please read it carefully. It's not the usual yada, yada. Click below to continue to the Terms of Use.	Increase
5	CTAs offer no choice	CTA can be modified prior to acceptance	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use set forth on the following page. Please read it carefully. You will be given the opportunity to accept, decline, or modify the Terms of Use. Click below to continue to the Terms of Use.	Increase
6	Vendors rely on reputation rather than CTA	Vendor offering CTA is reputable	Your use of this service is expressly conditioned upon your acceptance of our Terms of Use set forth on the following page. Please read it carefully. PublicDomainMusic.com is a wholly-owned subsidiary of Google, Inc. [logo displayed] Click below to continue to the Terms of Use.	Decrease
<b>Format Used in Presenting CTA (Interacted with all Six Notes)</b>				
Format	Belief about CTAs addressed	Experimental manipulation	Format change	Expected result on readership
Long vs. short	CTAs are too long and time-consuming	CTA is short and skimmable	For each of Notes 1-6 a summary of the CTA was presented in lieu of a scroll-box containing the entire CTA.	Increase

Table 3

*Mean Time Spent Reading the CTA in Seconds by Length of CTA and Note in Study 2*

Note	Length of CTA								Total			
	<i>Long</i>				<i>Short</i>				<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI
	<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI	<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI				
<i>#1: Standard</i>	17	35.4 <sup>a</sup>	(50.9)	[9.2, 61.6]	20	44.8	(25.3)	[33.0, 56.7]	37	40.5	(38.9)	[27.5, 53.5]
<i>#2: No one reads CTAs</i>	17	56.6	(73.0)	[19.1, 94.1]	23	51.9	(45.8)	[32.1, 71.7]	40	53.9	(58.1)	[35.3, 72.5]
<i>#3: CTAs are irrelevant to me</i>	17	60.4	(72.4)	[23.2, 97.6]	20	50.8	(38.7)	[32.7, 68.9]	37	55.2	(56.0)	[36.5, 73.9]
<i>#4: CTAs all say the same thing</i>	20	101.2	(117.2)	[46.4, 156.1]	22	64.2	(48.7)	[42.6, 85.8]	42	81.8	(89.1)	[54.1, 109.6]
<i>#5: CTAs offer no choice</i>	21	66.4	(91.6)	[24.7, 108.0]	17	51.1	(43.3)	[28.8, 73.4]	38	59.5	(73.5)	[35.4, 83.7]
<i>#6: Vendors rely on reputation</i>	19	26.7	(30.1)	[12.2, 41.2]	27	63.0	(51.8)	[42.4, 83.5]	46	48.0	(47.3)	[33.9, 62.0]
<i>All:</i>	111	58.7	(81.0)	[43.5, 73.9]	129	54.9	(43.6)	[47.3, 62.5]	240	56.7	(63.6)	[48.6, 64.8]

Note. CI = confidence interval

<sup>a</sup> The long, standard Note served as the control condition.

Table 4  
*Regression Analyses Predicting Time Spent Reading, Comprehension, and Probability of Rejection in Study 2*

	<i>Time Spent Reading (log(time))</i>				<i>Comprehension (quiz score)</i>				<i>Probability of Rejection</i>			
	<i>B</i>	<i>SE</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE</i>	<i>z-stat</i>	<i>p</i>
<u>Experimental variables:</u>												
People Read CTA (Note 2)	0.48	0.35	0.16	0.169	0.04	0.05	0.09	0.473	1.44	1.22	-1.18	0.238
CTA is relevant (Note 3)	0.70	0.34	0.22	0.040	-0.03	0.05	-0.06	0.582	1.12	1.38	-0.81	0.420
CTA has different terms (Note 4)	1.71	0.33	0.57	0.000	0.04	0.05	0.08	0.488	1.20	1.29	-0.93	0.354
CTA can be modified (Note 5)	1.01	0.33	0.31	0.003	0.08	0.05	0.17	0.126				
CTA offered by reputable vendor (Note 6)	0.16	0.34	0.05	0.644	0.02	0.05	0.06	0.639	-0.26	1.56	0.17	0.867
Short Version of CTA	1.05	0.35	0.45	0.003	0.11	0.05	0.35	0.035	1.79	0.91	-1.98	0.048
Note 2*Short	-0.57	0.47	-0.15	0.233	0.00	0.07	-0.01	0.964				
Note 3*Short	-0.89	0.47	-0.22	0.060	0.05	0.07	0.08	0.502				
Note 4*Short	-1.67	0.47	-0.43	0.000	-0.03	0.07	-0.05	0.688				
Note 5*Short	-1.51	0.50	-0.31	0.003	-0.14	0.08	-0.20	0.079				
Note 6*Short	-0.16	0.46	-0.05	0.725	0.02	0.07	0.04	0.786				
<u>Control variables:</u>												
Importance of on-line usage	-0.25	0.06	-0.25	0.000	-0.01	0.01	-0.10	0.148	-0.73	0.36	2.01	0.044
Importance of understanding legal rights	0.10	0.05	0.15	0.022	0.02	0.01	0.20	0.004	0.33	0.29	-1.15	0.250
Typical reading behavior	0.28	0.07	0.29	0.000	0.02	0.01	0.13	0.089	0.75	0.39	-1.92	0.055
Ever downloaded music	0.49	0.21	0.14	0.018	0.07	0.03	0.14	0.031	1.69	1.26	-1.33	0.182
Owns MP3 player	0.57	0.23	0.15	0.012	0.04	0.04	0.08	0.252	6.12	9.06	-0.68	0.499
Gender	-0.18	0.18	-0.06	0.320	-0.01	0.03	-0.03	0.611	-1.89	1.38	1.37	0.170
Age	0.04	0.02	0.10	0.089	0.00	0.00	-0.08	0.210	0.36	0.27	-1.34	0.181
Race	0.24	0.17	0.08	0.165	0.02	0.03	0.04	0.543	-1.43	0.96	1.48	0.138
Social class	-0.17	0.16	-0.06	0.312	-0.04	0.03	-0.10	0.131	1.80	1.16	-1.55	0.121
Constant	0.70	0.75	.	0.350	0.47	0.12	.	0.000	-20.19	13.20	1.53	0.126

Note. Linear regression was used to analyze Time Spent Reading and Comprehension; logistic regression was used to analyze Probability of Rejection. In all three regressions, coefficients on the experimental variables represent the incremental change in the dependent variable compared to the long version of the control condition. Note 5 and all interactions of Note and Length were omitted in the logistic regression due to perfect prediction of acceptance for all participants in Note 5 as well as Note 3 x Long and Note 6 x Long.

Table 5

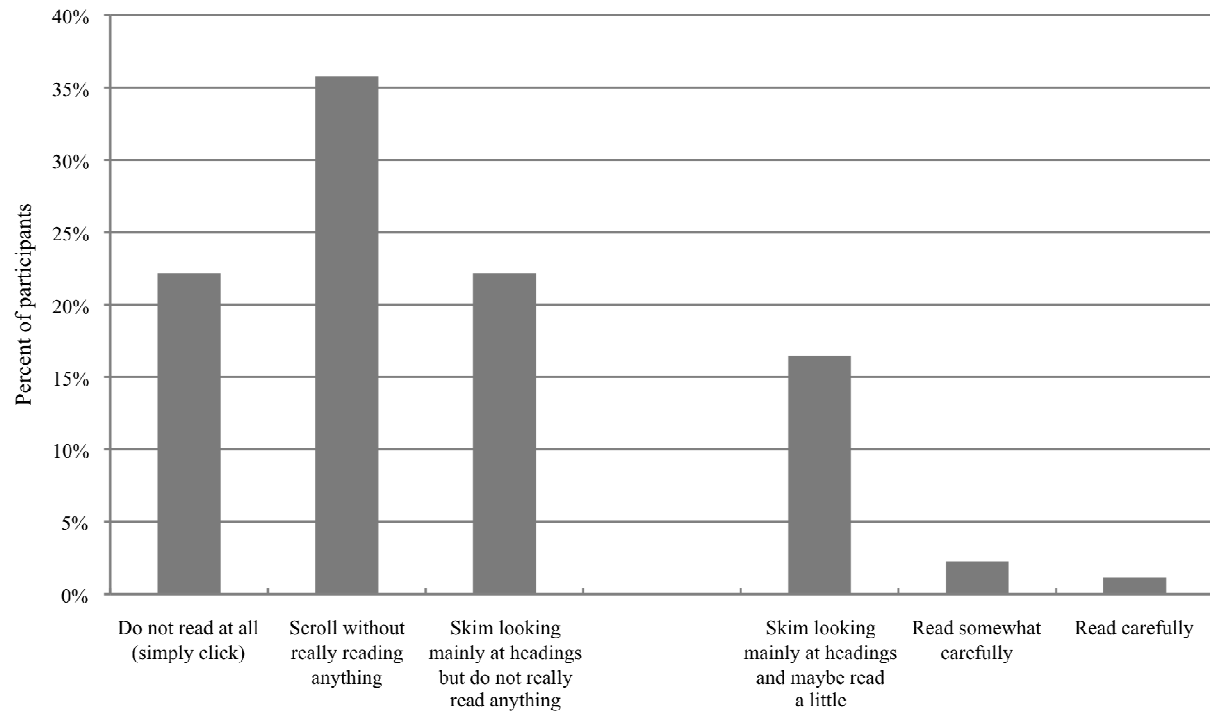
*Mean Quiz Score Performance as Percentage of Correct Answers by Length of CTA and Note in Study 2*

Note	Length of CTA								Total			
	<i>Long</i>				<i>Short</i>				<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI
	<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI	<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI	<i>n</i>	<i>M</i>	<i>(SD)</i>	95% CI
<i>#1: Standard</i>	16	57.1	(16.5)	[48.4, 65.9]	19	65.6	(15.7)	[57.9, 73.1]	35	61.7	(16.4)	[56.1, 67.3]
<i>#2: No one reads CTAs</i>	16	58.0	(15.6)	[49.7, 66.4]	22	71.2	(12.0)	[65.9, 76.5]	38	65.6	(14.9)	[60.7, 70.6]
<i>#3: CTAs are irrelevant to me</i>	16	53.1	(16.1)	[44.6, 61.7]	19	69.7	(15.5)	[62.2, 77.2]	35	62.1	(17.7)	[56.1, 68.2]
<i>#4: CTAs all say the same thing</i>	19	57.3	(13.3)	[50.9, 63.7]	21	68.1	(18.4)	[59.7, 76.4]	40	63.0	(16.9)	[57.6, 68.3]
<i>#5: CTAs offer no choice</i>	20	60.0	(16.8)	[52.1, 67.9]	16	65.9	(15.1)	[57.9, 74.0]	36	62.6	(16.1)	[57.2, 68.1]
<i>#6: Vendors rely on reputation</i>	18	57.1	(10.4)	[51.9, 62.2]	26	73.3	(16.1)	[66.8, 79.8]	44	66.6	(16.1)	[61.8, 71.5]
<i>All:</i>	105	57.2	(14.7)	[54.4, 60.1]	123	69.3	(15.5)	[66.5, 72.1]	228	63.7	(16.3)	[61.6, 65.9]

Note. CI = confidence interval

## Figure Captions

Figure 1. Typical reading behavior when presented with CTA



## Appendix A

## PDM Registration Page



## Register at PublicDomainMusic.com

You must register to access PDM.com's collection of free music.

### Your Personal Information

All fields are required.

<b>First Name</b>	<input type="text"/>	
<b>Last Name</b>	<input type="text"/>	
<b>Address 1</b>	<input type="text"/>	
<b>Address 2</b>	<input type="text"/>	
<b>City</b>	<input type="text"/>	
<b>State</b>	Alabama <input type="button" value="v"/>	
<b>ZIP Code</b>	<input type="text"/>	
<b>Primary Phone</b>	<input type="text"/>	Telephone is required in case there are questions about your account.
<b>E-mail Address</b>	<input type="text"/>	Valid email address is required to complete registration.
<b>Re-enter E-mail Address</b>	<input type="text"/>	

### Your UserID and Password

All fields are required.

<b>Create a User ID</b>	<input type="text"/>	Your User ID identifies you to PublicDomainMusic.com.
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### Your UserID and Password

All fields are required.

<b>Create a User ID</b>	<input type="text"/>	Your User ID identifies you to PublicDomainMusic.com.
<b>Create a Password</b>	<input type="text"/>	6 character minimum
<b>Re-enter Password</b>	<input type="text"/>	

### Important Note

Your use of this service is expressly conditioned upon your acceptance of our Terms of Use set forth on the following page. Please read it carefully. Click below to continue to the Terms of Use.

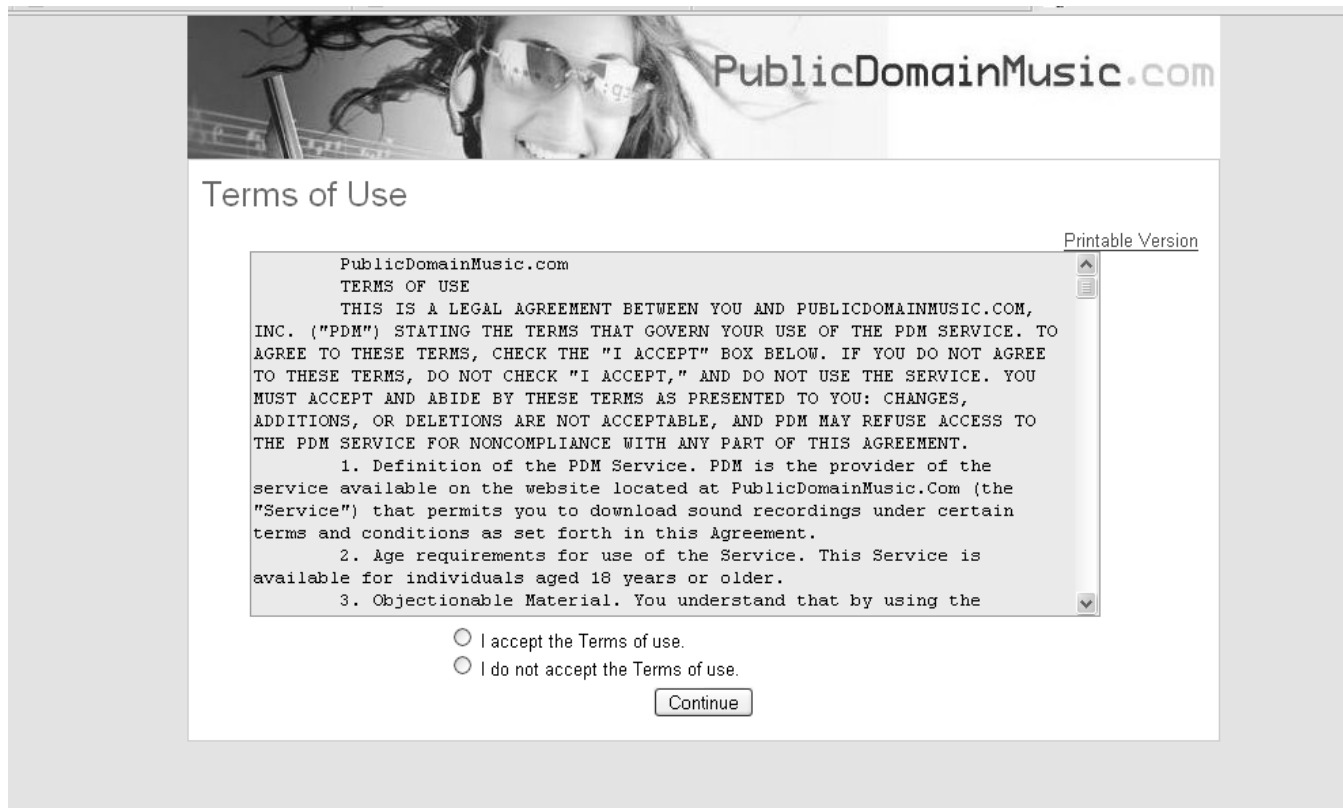
[Continue to the Terms of Use →](#)



## Appendix B

## Long and Short Forms of the CTA

## Long Form:



PublicDomainMusic.com

## Terms of Use

[Printable Version](#)

PublicDomainMusic.com  
TERMS OF USE  
THIS IS A LEGAL AGREEMENT BETWEEN YOU AND PUBLICDOMAINMUSIC.COM, INC. ("PDM") STATING THE TERMS THAT GOVERN YOUR USE OF THE PDM SERVICE. TO AGREE TO THESE TERMS, CHECK THE "I ACCEPT" BOX BELOW. IF YOU DO NOT AGREE TO THESE TERMS, DO NOT CHECK "I ACCEPT," AND DO NOT USE THE SERVICE. YOU MUST ACCEPT AND ABIDE BY THESE TERMS AS PRESENTED TO YOU: CHANGES, ADDITIONS, OR DELETIONS ARE NOT ACCEPTABLE, AND PDM MAY REFUSE ACCESS TO THE PDM SERVICE FOR NONCOMPLIANCE WITH ANY PART OF THIS AGREEMENT.

1. Definition of the PDM Service. PDM is the provider of the service available on the website located at PublicDomainMusic.Com (the "Service") that permits you to download sound recordings under certain terms and conditions as set forth in this Agreement.
2. Age requirements for use of the Service. This Service is available for individuals aged 18 years or older.
3. Objectionable Material. You understand that by using the

I accept the Terms of use.  
 I do not accept the Terms of use.

## Short Form:



## Terms of Use:

The following is a human-readable summary of our Terms of Use, which you will agree to by clicking "I Accept" below. A full version of the Terms of Use is [here](#).

**RESTRICTIONS ON USE OF MUSIC FILES:**

1. Sound recordings acquired on PublicDomainMusic.org include a security framework that limits your usage of the music as follows:
  - you can use the Products on three (3) PDM-authorized devices at any one time;
  - you can burn a sound recording onto a CD up to five (5) times
2. In addition, you agree:
  - that you will use the sound recordings only for personal, noncommercial use
  - that you will not modify the software embedded in the sound recordings
3. PDM reserves the right to modify the Usage Rules at any time.

**YOUR ACCOUNT AND PRIVACY INFORMATION:**

1. PDM may share your Registration Data or other personal information with PDM's employees and agents, persons and entities affiliated with PDM, and outside businesses and organizations, including retailers and direct marketers, membership clubs and publishers.
2. PDM may also disclose your Personal Information if required to do so by law or litigation, or if we determine that for national security, law enforcement, or other issues of public importance, disclosure is necessary

**AVAILABILITY OF SERVICE:**

1. PDM reserves the right to modify, suspend, or discontinue theService (or any part or content thereof) at any time with or without notice to you.
2. PDM may terminate your rights to any or all of the Service if any information you provide to us is false, inaccurate or incomplete.

**PDM'S LIMITED LIABILITY TO YOU:**

1. PDM is not liable for any errors in the service or the music files you download. This includes any liability for problems or expenses you suffer because of an error with our service or any of the music files you download.
2. Were you to ever attempt to sue us, you would be required to bring your lawsuit in the state of Oregon.

**CHANGES TO THE TERMS OF USE:**

1. PDM has the right, at any time, to change this Agreement and to impose new or additional rules, policies, terms, or conditions on your use of the Service.

- I accept the Terms of use.  
 I do not accept the Terms of use.

## Appendix C

## Modification Condition (for short form)



## Custom Terms of Use:

**Note to participant: Because this is a user testing study, you will not actually be charged for any selections you make below. But please respond as if you were really using this web site and would actually be charged.**

Using the drop-down menus below, select the contract provision you would like to apply to your Terms of Use. Please note that not every contract term can be custom-tailored. Your choice of terms is limited to those areas that contain a drop-down menu. You must make a selection for all customizable terms before you can sign-up for the service. The following is a human-readable summary of our Terms of Use. By making the modifications below, the actual Terms of Use will be automatically amended to include the chosen terms. The cost of the chosen term is indicated in the drop-down menu. If a fee applies, you will be billed separately.

**RESTRICTIONS ON USE OF MUSIC FILES:**

- Sound recordings acquired on PublicDomainMusic.com include a security framework that limits your usage of the music as follows:
  - you can use the Products on  PDM-authorized devices at any one time.
  - you can burn a sound recording onto a CD up to  times.
- In addition, you agree:
  - that you will use the sound recordings only for personal, noncommercial use [cost: \$0.00]
  - no limitation of use--you would be free to use for personal or commercial use (e.g. you would be permitted to upload the music to a commercial website or to use it in a movie) [cost: \$1.00]
  - that you will not modify the software embedded in the sound recordings.
- PDM reserves the right to modify the Usage Rules at any time.

**YOUR ACCOUNT AND PRIVACY INFORMATION:**

- Privacy information:
  - PDM may share your Registration Data or other personal information with PDM's employees and agents, persons and entities affiliated with PDM, and outside businesses and organizations, including retailers and direct marketers, membership clubs and publishers. [cost: \$0.00]
  - PDM will not share your Registration Data or other personal information collected on the PDM website (collectively, 'Personal Information') to other marketers or third-parties. PDM may, however, share your Personal Information with PDM's employees and agents. [cost: \$1.00]
- PDM may also disclose your Personal Information if required to do so by law or litigation, or if we determine that for national security, law enforcement, or other issues of public importance, disclosure is necessary.

**AVAILABILITY OF SERVICE:**

- PDM reserves the right to modify, suspend, or discontinue the Service (or any part or content thereof) at any time with or without notice to you.
- PDM may terminate your rights to any or all of the Service if any information you provide to us is false, inaccurate or incomplete.

**PDM'S LIMITED LIABILITY TO YOU:**

- PDM is not liable for any errors in the service or the music files you download. This includes any liability for problems or expenses you suffer because of an error with our service or any of the music files you download.
- Disputes:
  - Were you to ever attempt to sue us, you would be required to bring your lawsuit in the state of Oregon. [cost: \$0.00]
  - You have no right to sue us should a dispute arise between PDM and you concerning the PDM services or products. Rather, any dispute must be resolved by binding arbitration conducted in Portland, Oregon. [cost: \$0.00]
  - Were you to ever attempt to sue us, you would be permitted to bring your lawsuit in the state of your current residence. [cost: \$0.50]
  - You have no right to sue us should a dispute arise between PDM and you concerning the PDM services or products. Rather, any dispute must be resolved by binding arbitration conducted in the state of your current residence. [cost: \$0.50]
  - You have no right to sue us should a dispute arise between PDM and you concerning the PDM services or products. Rather, any dispute must be resolved by binding arbitration conducted in the state of your current residence. [cost: \$0.50]

**CHANGES TO THE TERMS OF USE:**

- PDM has the right, at any time, to change this Agreement and to impose new or additional rules, policies, terms, or conditions on your use of the service.

Total Cost of Contract Changes:

- I accept the Terms of Use as modified above and agree to pay the above stated sum when billed.
- I do NOT accept the Terms of Use as modified above.