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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 social representations that exist about CTAs, and experimentally manipulate these representations in order 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 social representations of 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 not important, the companies are reputable, and they are irrelevant. Manipulating these representations 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 representation. These results demonstrate support for the influence of social representations on CTA 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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Blind Consent?

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

Every day, individuals using the Internet are confronted with a choice: to accept or not accept the terms of click-through agreements (“CTAs”). Used by on-line vendors to set forth the legal relationship between a vendor and its consumers (Kunz, Del Duca, Thayer, & Debrow, 2001), CTAs are ubiquitous in the on-line world. Requiring but a simple 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 the terms upon which a consumer may shop on-line. Additionally, CTAs often include other “boilerplate terms” such as the right of a vendor to collect and disseminate a consumer’s personal information and restrictions on the manner in which a consumer may bring future legal grievances against a vendor (Marotta-Wurgler, 2007). According to anecdotal evidence and limited survey research (Hillman, 2006a; Becher and Unger-Aviram, 2008), individuals overwhelmingly make the choice to accept—but not read—CTAs, thereby blindly consenting to their terms.

Since the advent of the CTA, consumers have made a number of legal challenges against the enforceability of these contracts on the basis that they never read—let alone agreed—to their terms. The vast majority of these challenges have been unsuccessful (Lemley, 2006). While courts acknowledge that consumers do not read CTAs, they find the agreements validly formed contracts given that legal doctrine requires merely that consumers “assent” to the formation of a contract. Consequently, whether or not a consumer actually reads the contract is largely irrelevant. So long as a consumer manifests her assent by clicking “I agree,” she establishes her assent to the terms contained in the CTA, regardless of whether it turns out to have been an ill-informed decision. Although it is possible a court might later invalidate certain contract terms as
legally “unconscionable,” the formal requirements for demonstrating legal unconscionability make such instances of judicial invalidation rare (Lemley, 2006).

As a result of the apparent disconnect between the legal doctrine of contract assent and the social reality that consumers do not actually read CTAs, a large and ever-growing legal literature has emerged examining whether legal doctrine should change in light of CTA non-readership. In general, the literature divides itself into two camps. One camp, troubled by the disconnect, has argued for modifications to existing legal doctrine. This reformist camp believes on-line vendors have an incentive to write one-sided, onerous contract terms given that consumers do not read CTAs. Consequently, these scholars advocate greater judicial scrutiny of these contracts either through policing the substantive fairness of contract terms (Korobkin, 2003), establishing a rule that certain terms are presumptively unenforceable (Lorsen, 2004; Radin, 2000), or requiring more prominent disclosure of contract terms (Hillman and Barakat, 2008; Hillman, 2006b; Gomulkiewicz, 2004). The second camp acknowledges the general lack of CTA readership but believes market forces will ensure CTAs are substantively fair. In competitive markets, this market-based camp argues, businesses will compete for the handful of consumers who do read CTAs. And since these consumers will shop for favorable CTAs, businesses have an incentive to write fair, efficient contracts (Schwartz & Wilde, 1983; Ribstein and Kobayashi, 2002).

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 presented with a form contract such as a CTA. Most notably, neither camp of legal scholars has systematically examined the foundational assumption that underlies the enormous scholarship on form contracts—namely, that the vast majority of
consumers do not read them. Hillman (2006a) as well as Becher and Unger-Aviram (2008) provide important first steps in this direction in their studies of how law and business students behave when presented with a CTA; however, the informal nature of their 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 instance, law students presumably have a greater familiarity with the legal doctrine of unconscionability, which may cause them to place greater reliance on a court’s ability to strike down unconscionable terms or on a vendor’s desire to avoid legal invalidation of a contract. Is it true that ordinary consumers also skip past the terms of CTAs and click “I agree”? If so, are there sufficient “readers” of CTAs to promote efficiency in contract terms?

More importantly, the prevailing scholarship on CTAs lacks any systematic examination of the psychological functioning associated with CTA non-readership. Understanding why consumers read or don’t read CTAs 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 consumer reading behavior in some domains such as credit card disclosures (Wiener, Winter, Cantone, Gross & Block-Lieb, 2007), psychologists have yet to focus on consumer behavior when presented with CTAs. Accordingly, reform proposals aimed at CTA non-readership have therefore had to rely on general models of human behavior that may fail to reflect actual psychological functioning in the CTA context. Most notably, legal scholars have tended to rely on a model of limited human cognition to explain the non-readership phenomenon. (Korobkin, 2003; Hillman & Rachlinski, 2002; Eisenberg 1986). Indeed, for a growing number of legal scholars, individuals are simply presumed to lack the cognitive capacity to read and
understand form contracts in light of our marked proclivity to engage in decision-making heuristics or our desire to avoid the burden of making explicit trade-offs between product attributes that might be stressful to compare (Korobkin, 2003). As summarized by one leading legal scholar, non-readership reflects “an implicit surrender to cognitive limitations” and “a preference not to care.” (Ben-Shahar, 2008).

We believe there is more to the psychological story.

A Social Representations Approach to Form Contracts

According to scholarship on situated cognition, the mind is “situated” within an interactional social, cultural, institutional, and historical environment (Resnick, Levine, & Teasley, 1991), and cognitive activities are shaped by social structures (Goodnow, 1990). From this perspective, to explain behavior such as non-readership of CTAs, one must go beyond the individual and examine the sociocultural factors that may encourage blind consent to CTAs.

A useful theoretical framework with which to do this is to analyze the most prevalent social representations of CTAs. Social representations are networks of values, images, ideas, meanings, and practices that allow people to orient themselves in and master their social and material worlds and that enable communication with others (Moscovici, 1984; see Deaux & Philogène, 2001). By allowing people to acquire a common repertoire of interpretations, explanations, and procedures that they apply to everyday life, social representations constitute a type of psychology of common sense or social sense that shape behavior in critical ways. Accordingly, social psychologists have used social representation analysis to assess psychological functioning and behavior in a wide variety of settings, including self and groups (Fryberg, Markus, Oyserman, & Stone, in press; Oyserman & Markus, 1998), health (Flick, 2000), human rights (Doise, Spini, & Clémence, 1999), biotechnology (Wagner & Kronberger,
2001), information technology (Gal & Berente, 2008), hazards (Breakwell, 2001), and advertising (de Rosa, 2001).

For similar reasons, examining the social representations of CTAs offers a window through which to understand the behavior of consumers when presented with these agreements. Indeed, the limited empirical studies on consumer attitudes about contracts are highly suggestive that consumers hold pervasive and powerful beliefs about the significance and meaning of written agreements. Prior research on contract disclaimers, for instance, has indicated that consumers share a widely-held belief that the terms in a written contract are generally enforceable, even when presented with a contract disclaimer that is unlikely to be upheld by a court as legally enforceable (Mueller, 1970). More recent experimental research by Stolle and Slain (1997) investigated whether these exculpatory clauses in form contracts actually deter consumers from pursuing their legal rights when harmed by a contracted-for service. Their study confirmed a prevalent belief among participants that contract language is generally enforceable, resulting in a decreased propensity to seek compensation in the face of an exculpatory clause. Likewise, the extensive research regarding the “psychological contract” in employment contexts (e.g., Robinson & Morrison, 1995, Robinson & Rousseau, 1994; Rousseau, 1989) documents the formation of widely-held beliefs among employees regarding the moral and personal obligations owed to them by their employer—beliefs that in turn shape employees’ understanding of the legal rules that govern employee terminations (Roehling & Bosell, 2004).

Unearthing the social representations of CTAs embedded within American culture therefore provides a powerful method to discern those commonly-held beliefs about CTAs that likely influence the readership or non-readership of these agreements. Equally important, because social representations fundamentally shape behavior and psychological functioning,
social representations can often be manipulated in order to effect behavioral or attitudinal change (Cheryan, Plaut, Davies, & Steele, 2008; Fryberg et al. in press). This feature of social representations theory thus has the potential to enhance significantly those reform proposals aimed at encouraging CTA readership. Specifically, to the extent non-readership stems in part from the social representations of CTAs, modifying these social representations should result in an increase in CTA readership and, where the CTA is presented in a readable format, an increase in CTA comprehension and CTA shopping. In short, by combining social representation theory with current proposals to require advance, readable disclosures of a CTA’s terms (Hillman and Barakat, 2008, American Law Institute, 2007), it may be possible to lessen the divide between the legal doctrine of mutual assent and the social reality of CTA non-readership. Simultaneously, through enhancing consumer readership of CTAs, vendors would have a significant incentive to offer contract terms and contract forms that are more responsive to heterogeneous consumer preferences than the prevailing one-size-fits-all CTAs that currently dominate the marketplace.

Overview of Studies

To explore the prevalence and causes of non-readership of CTAs, we designed two studies that examined the social representations of CTAs and their influence on consumer readership. The first study had two objectives: to measure empirically the extent of non-readership of CTAs and to uncover the social representations about CTAs that might affect reading behavior. We then reasoned that to the extent non-readership was associated with particular social representations of CTAs, modifying these social representations when consumers were presented with a CTA should result in increased readership and, potentially, CTA comprehension and CTA shopping. Following this logic, Study 2 used a simulated on-line
contracting environment to experimentally test whether modifying the social representations of CTAs could increase readership, comprehension, and shopping of a typical CTA.

Study 1

Overview and Hypotheses

As noted above, the primary objectives of the first study were to examine the incidence of non-readership of CTAs and to identify those social representations of CTAs that might contribute to non-readership. On the basis of anecdotal evidence, pre-testing interviews, and limited survey evidence (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 social representations of 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 (Rakoff 1983; Hillman & Rachlinski 2002);

(4) CTAs all say the same thing (Epstein, 2006);

(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 (Katz, 1998; Gillette, 2004); and

(8) no one reads CTAs (Ben-Shahar, 2008).
In addition to these social representations, 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—generally, the tendency to engage in and enjoy effortful cognitive activity (Cacioppo and Petty, 1982)—should affect their willingness to grapple with the cognitive demands of reading a CTA. Studies have demonstrated that the need for cognition is positively related to academic performance and course grades (Leon & Dalton, 1988; Sadowski & Gulgoz, 1996), that students high on the need for cognition are able to better comprehend material requiring cognitive effort (Leone & Dalton, 1988), and that students high in the need for cognition are also more effective information processors (Sadowski & Gulgoz, 1996). Accordingly, if the limited cognition model underlies non-readership, we should find that individuals with a strong need for cognition are more inclined to read CTAs. Likewise, because mindfulness—or 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 and Ryan, 2003), we should also expect a relationship between this trait and readership according to the limited cognition model.

We also speculated that, 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, 2002; Pennington, Wilcox, & Grover 2004), individuals showing a predisposition towards trusting internet vendors could also be more inclined to skip reading a CTA in favor of relying on a vendor’s reputation to ensure a fair exchange. Additionally, we tested for a host of other individual differences that could, according to previous research, be expected to be associated with not reading contracts (e.g., sense of
control, independence, and Big Five personality traits). Notwithstanding the influence of these aforementioned personal traits on reading behavior, however, we expected that the influence of the social representations of CTAs would be robust to the effect of these latter factors.

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 various individual characteristics such as race and social class.

Method

Participants

The sample consisted of 182 undergraduate students at the University of Georgia 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 that all participants had some familiarity with CTAs, we first showed them a real life example of a CTA (a print-out of the Terms of Service required to access the iTunes music store at [www.itunes.com](http://www.itunes.com)). All participants acknowledged having some familiarity with CTAs. In addition, the first item on the questionnaire asked participants to report how often they see these agreements. On a scale of 1 = never to 6 = very often, the median response was 4 ($M = 4.2$, $SD = 1.14$), indicating high overall exposure. Participants then completed the rest of the
questionnaire, which sought to elicit three principal items of information: readership, social representations of CTAs, and participant characteristics.

Readership, Acceptance, and Comprehension

The first set of questions focused on participants’ own rate of CTA readership, CTA acceptance, and their general comprehension of CTAs.

Reading behavior. Three items gauged reading behavior. First, participants were asked to classify their typical behavior when confronted with a CTA (the “Typical Reading Behavior Item”). Responses included: 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. Another item asked how often one reads the agreements (1 = never to 6 = always). The final question asked participants to classify themselves as “non-readers” or “readers.”

Acceptance. Participants were asked to indicate how often they accept CTAs (1 = never to 6 = always), and to estimate the percentage that they accept. Furthermore, they were asked to indicate what they typically do if they object to the terms of the agreement. Responses included: 1 = agree and live with the terms, 2 = agree, with the expectation that they would protest the terms if they were enforced, 3 = disagree and look for an alternative vendor with more acceptable terms, or 4 = disagree and do not look for an alternative vendor.

Comprehension. With respect to understanding CTAs, participants were first asked to rate their knowledge of what these agreements generally say on a scale of 1 = ignorant of what they say to 6 = very knowledgeable of what they say. In addition, they were asked 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*). Finally, they were asked whether CTAs authorize the “collection and sharing of information about you by the vendor” (yes, no).

**Social representations of CTAs**

The second set of questions focused on the social representations of CTAs that might contribute to non-readership. Most notably, participants were asked an open-ended question to explain their typical reading behavior. The coding of this item is described below.

In addition, the questionnaire contained specific items that reflected some of the social representations of CTAs predicted to affect readership:

*No one reads CTAs.* To analyze the prevalence of the social representation that “no one reads CTAs,” a series of questions asked participants about their perception of the reading behavior of other people when confronted with CTAs. Just as for their own reading behavior, participants were asked to classify the typical behavior of “most people” when confronted with a CTA (the “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.* With respect to the perception that CTAs offer consumers no choice because they are offered on a take-it-or-leave-it basis, 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. Two items were included to gauge participants’ views about the enforceability of CTAs. First, 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). Second, they were asked 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

The final component of the questionnaire contained items designed to elicit information about participant characteristics, including a variety of individual differences, participants’ use of the internet, and demographics.

Proclivity to trust. Proclivity to trust was assessed with items (using a scale from 1 = disagree strongly to 6 = agree strongly) in three categories. The first category consisted of three items from Rosenberg’s (1956) Faith in People scale, designed to measure participants’ overall proclivity for interpersonal trust (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?”), averaged together (α = 0.68). The second category consisted of three items adapted from the prior three items and designed to measure participants’ 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?”), which were also averaged together ($\alpha = 0.68$). The last category consisted of eight items adapted from McKnight, Choudhury, & Kacmar’s (2002) items on Institution-Based Trust and were designed to assess participants’ overall sense of comfort and trust while working and shopping on the Internet (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. Participants’ willingness and desire to engage in challenging cognitive processes was assessed using Cacioppo, Petty, & Kao’s (1984) Need for Cognition Scale ($\alpha = 0.88$). Their mindfulness was assessed with Brown & Ryan’s (2003) Mindful Attention Awareness Scale ($\alpha = 0.82$).

Sense of control. Participants’ attitudes regarding their personal control over life outcomes were assessed using the two subscales from Lachman and Weaver’s (1998) Sense of Control scale (adapted in part from Pearlin and Schooler, 1978). The Personal Mastery subscale comprises 4 items measuring the participant’s perceived sense of mastery ($\alpha = .65$) and the Perceived Constraints subscale contains 8 items measuring perceived obstacles and unpredictable contingencies in life ($\alpha = .71$). We also assessed another aspect of control—participants’ propensity toward tenacious goal pursuit versus flexible goal adjustment—using three items from Brandstädter & Renner (1990). For each item, participants characterized their goal strategies by indicating (on a scale of 1 = a lot like A to 6 = a lot like B) a tendency toward one of two strategies such as “When choosing my goals, I prefer to choose one or two important goals and really focus on achieving them” and “I prefer not to limit myself—I keep my options open so I can take advantage of anything that comes up” ($\alpha = .71$).

Personality and self-concept. Participants completed the Ten-Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003) (Openness, $\alpha = 0.47$; Conscientiousness, $\alpha = 0.59$;
Extraversion, $\alpha = 0.84$; Agreeableness, $\alpha = 0.48$; and Emotional Stability, $\alpha = 0.67$) to measure the Big Five personality factors as well as Singelis’s (1994) 12-item Independent Self-Construal Scale ($\alpha = 0.84$) to assess participants’ independence.

*Internet use and importance of legal rights.* Participants were asked (using a scale of $1 = \text{not at all important}$ to $7 = \text{extremely important}$) about the importance of using the internet, shopping on-line, access to on-line music sites, and frequency of use of on-line music sites. These items were averaged together to form a composite of on-line experience ($\alpha = .70$). They were also asked “How important is it to you to understand your legal rights?” Finally, participants were asked 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, citizenship, age, and parents’ education.

*Coding procedure for the open-ended answer*

Answers to the open-ended question asking participants to explain their usual reading behavior were coded by two carefully trained undergraduate research assistants blind to the hypotheses. To facilitate coding, 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 tentative review of the questionnaires suggested a handful of social representations that were not previously identified in our pre-testing interviews. Most notably, participants evidenced a marked predisposition to explain their non-readership due to the fact that CTAs are “irrelevant” to them. A number of participants also explained their non-readership on the basis that they were simply indifferent or apathetic with regard to the contents
of the CTA. Table 1 includes this expanded list of coding categories, together with examples for each.

To account for the fact that multiple social representations might be important to a participant, codes were not rendered mutually exclusive. For example, the statement “it takes a really long time and they all say the same thing” would be categorized as both *CTAs are too long and time-consuming* and *CTAs all say the same thing*. After coding all of the questionnaires, 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.

**Results**

*Incidence of Non-Readership, Rates of Acceptance, and Contract Comprehension*

*Reading behavior.* As predicted, participants reported rarely reading CTAs. Figure 1 summarizes the responses to the primary question of interest, the 6-point Typical Reading Behavior Item (*Md* = 2, *M* = 2.44, *SD* = 1.14). 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 dominant behavior as simply “skimming.” The six-point item asking “How often do you read these agreements?” (1 = *never*; 6 = *always*) further indicated that participants seldom—if ever—attempted to read CTAs (*M* = 2.18, *SD* = 1.17). 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.

**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 (\(Mdn = 98\% ; M = 89.4\% , SD = 20.2\% \)). Interestingly, however, readers reported accepting a lower proportion of CTAs (\(Mdn = 95\% , M = 80.7\% , SD = 29.0\% \)) than non-readers (\(Mdn = 98\% , M = 90.4\% , SD = 18.8\% \)), \(t(176) = 1.99, p < .05\), a result consistent with the hypothesis that the marginal “reading” consumer might actively shop for CTA terms. This conclusion is further supported by participants’ description of their typical behavior when they object to the terms of a CTA. As shown in Figure 2, readers were considerably less inclined than non-readers to “click ‘I agree’ and live with the terms” and considerably more inclined to “click ‘I disagree’ and look for an alternative vendor with more acceptable terms” (\(\chi^2(3) = 8.4131, p = .038\)).

**Comprehension.** Participants were also asked to assess their overall understanding of the terms of CTAs. In the six-point item asking participants to “rate your knowledge of what these agreements generally say” (1=ignorant of what they say; 6=very knowledgeable of what they say), the median response was 3 (\(M = 2.7 , SD = 1.2\)), a seemingly high figure considering the overall low rate of readership. To be sure, part of this result appears to be driven by readers who reported modestly higher ratings of their knowledge than non-readers (\(M = 3.2 , SD = .99\)) (\(t(174) = -2.68, p < .01\)). However, even among non-readers (\(M = 2.6 , SD = 1.2\)), the median response remained 3.
In all likelihood, both sets of participants overstated the degree to which they understood the contents of CTAs. In particular, to gauge participants’ understanding of CTAs, the questionnaire also asked participants whether CTAs authorized “the collection and sharing of information about you by the vendor.” Even though CTAs commonly contain such an authorization ([Jensen and Potts, 2004]), 61% of participants answered “no” with no significant difference between the responses of readers and non-readers ($\chi^2(1) = 1.02, ns$). Likewise, using a six-point Likert scale (1 = *Strongly disagree*; 6 = *Strongly agree*), six questions evaluated participants’ understanding of the basic provisions of the iTunes Terms of Service. Among those participants who identified being users of the iTunes service (48% of sample), anywhere from between 33% to 90% of the responses were on the “incorrect” side of the Likert-scale. Moreover, a chi-square analysis comparing the response of readers and non-readers in agreeing or disagreeing with these six items did not reveal any statistically significant differences ($\chi^2(5) < 8.65, ns$).

To assess whether the apparent disconnect between CTA understanding and CTA readership might stem from participants’ perception of their sense of control or cognitive engagement with their environment, participants’ self-reported understanding of CTAs were regressed on measures for both sense of control and mindfulness. The regressions revealed a significant, positive association for each even after controlling for whether the participant was a reader or non-reader (Personal Mastery: $B = .28, \beta = .18, t(172) = 2.43, p < .05$; Mindfulness: $B = .23, \beta = .13, t(173) = 1.77, p < .10$). These results suggest that for many participants, they might have over-stated their level of understanding either to conform to their sense of personal mastery and or a desire to be cognitively engaged with the consequences of their actions.

*Social Representations and Non-Readership Behavior*
Consistent with our hypothesis, Table 1 indicates that participants consistently referred to a small set of perceptions about CTAs when asked to explain their typical reading behavior. Testing the strength of the association between these perceptions and non-readership, however, is complicated by the overall low level of readership within the sample. In particular, because most of the participants who identified as “readers” indicated that their typical reading behavior was to “skim looking mainly at headings and maybe read a little,” many “readers” also sought to explain their failure to read more carefully by reference to the same social representations that permeated the explanations of the more resolute non-readers. Nonetheless, Table 1 strongly suggests that a core set of social representations may have predisposed participants to avoid reading CTAs.

*Length.* As predicted, the perception that CTAs are *too long and time-consuming* was especially pronounced in participants’ explanations of their reading behavior, with nearly one-third of all participants making reference to it.

*Same thing.* The social representation that CTAs *all say the same thing* was also prominent in respondents’ explanations for their non-readership, with nearly one-third of all participants making reference to it. Notably, logistic regression of whether a participant referenced this social representation (1=representation referenced; 0=not referenced) on the six-point item asking participants to rate their knowledge of CTAs revealed a strongly significant, positive association ($B = .58$ (logit), $SE = .148$, Wald = 15.44, $p < .001$). This result suggests that participants who referenced this representation tended to believe they understood the contents of CTAs.

*No choice.* The perception that CTAs are offered on a take-it-or-leave-it basis and therefore offer *no choice* also figured prominently in open-ended responses, with nearly one-fifth
of respondents making reference to it. In addition, readership was related to the two items designed to test the prevalence of the no choice social representation (i.e., “I have no choice but to accept the terms if I want the product or service” and “When it comes to these agreements, I have some control in negotiating the terms”). Non-readers (\(M = 5.02, SD = 1.33\)) were more likely than readers (\(M = 4.57, SD = 1.75\)) to report having “no choice but to accept” (\(t(174) = 1.68, p < .10\)), as were people who read less often (\(r(178) = -.185, p = .013\)). Frequency of reading was also positively related to having “some control in negotiating terms,” (\(r(178) = .204, p = .006\)).

**Irrelevance and apathy.** As noted previously, participants also referenced several social representations of CTAs that were not originally detected in our pre-testing interviews. Specifically, 16.5% of participants explained non-readership on the basis that CTAs were irrelevant to them either because the participant had no intention of doing anything in violation of a CTA (e.g., “I figure that I will follow the rules”) or because CTAs pertain primarily to parties other than the consumer (e.g., “I assume it doesn’t say anything of too much importance and is used by the company to protect themselves”). Similarly, 17.6% of participants explained their non-readership on the basis of apathy or indifference (e.g., “I really don’t care”; “[I] can’t be bothered”).

**No one reads.** The perception that no one reads CTAs had somewhat mixed results. Although no participant referenced this perception in the open-ended item, respondents evidenced a strong perception that most people do not read CTAs in the specific items designed to test the prevalence of this social representation. For example, 96.7% of participants classified “most people” as non-readers. Similar results persisted when we divided “most people” into “readers” and “non-readers” on the basis of the Typical Reading Behavior of Most People Item
(non-readers=89.3%; readers=10.7%). Indeed, the sample mean on the Typical Reading Behavior of Most People Item was low ($M = 2.17, SD = 1.00$). Analyses also revealed a relationship between participants’ self-reported readership and their perceptions of other people’s reading behavior. Specifically, correlation of participants’ responses to the Typical Reading Behavior Item with the Typical Reading Behavior of Most People Item revealed a significant positive association ($r(175) = 0.19, p = .012$).

**Reputation.** The importance of a vendor’s reputation as a factor influencing reading behavior was referenced by nearly twenty percent of participants; however, its effect on non-readership was the opposite of what was predicted by theory. In particular, reference to the importance of vendor reputation was significantly more pronounced among readers than non-readers ($\chi^2(1) = 8.34, p < .01$). A logistic regression of whether a participant referenced the importance of vendor reputation (coded $1 = \text{reputation referenced}; 0 = \text{reputation not referenced}$) on whether the participant was classified as a reader (coded $1 = \text{reader}; 0 = \text{non-reader}$) similarly confirmed that readers were significantly more likely to make reference to the importance of vendor reputation ($B = .53$ (logit), $SE = .174$, Wald = 9.30, $p < .01$). A specific item asking participants whether the reputation of a vendor is important in deciding whether to accept a CTA ($1 = \text{strongly disagree}; 0 = \text{strongly agree}$) also indicated that readers were more likely to consider vendor reputation in accepting CTAs ($t(174) = -2.54, p = .01$; readers: $M = 4.6, SD = 1.19$; non-readers: $M = 4.1, SD = 1.70$). Note, however, that the high means for both readers and non-readers indicate that most participants generally reported using reputation in deciding whether or not to accept an agreement.

**Fairness, unenforceability, and incomprehensibility.** Several of the social representations predicted to be associated with non-readership appeared to have very little influence on
participants. In particular, very few participants cited the social representation that CTAs are incomprehensible or that CTAs are generally fair. With regard to the latter, participants reported agreeing (1=strongly disagree; 6=strongly agree) with the statement that “the terms of these agreements are fair to me (i.e., the consumer”) (M = 4.2, SD = 1.0). Yet neither this item nor the open-ended question revealed any meaningful association between reading behavior and the fairness representation. Likewise, virtually no participants referenced the representation that CTAs are unenforceable against me when explaining their reading behavior. Nor did readers and non-readers differ in the extent to which they feared being sued by a vendor for violating the terms of a CTA (M = 1.98, SD = .95, t(174)=-.51, ns). Readers, however, were slightly more inclined to believe a CTA would be enforced if one were sued for violating its terms (t(173) = -2.59, p = .01; readers: M = 4.5 (75% likelihood), SD = 1.17; non-readers: M = 3.8 (56% likelihood), SD = 1.45).

Association of Individual Difference and Demographic Characteristics with Non-Readership Behavior

We used logistic regression to test the association between individual differences and reading behavior. In each regression, an indicator variable of whether a participant was a reader or non-reader (1 = reader; 0 = non-reader) was regressed on the composite scores from the individual difference scales (i.e., personal mastery, perceived constraints, goal pursuit strategies, trust, need for cognition, mindfulness, Big Five traits, independence). No significant associations were detected for any of the measures except for extraversion (B = -.305 (logit), SE = .12, Wald = 6.86, p = .009). To confirm the absence of association, the relationship between personality traits and participants’ responses to the Typical Reading Behavior Item was also tested using simple linear regression. Again, virtually no significant associations were detected. The primary
exceptions were a significant negative association of typical reading behavior with extraversion ($B = -.11, \beta = -.16, t(174) = 2.4, p = .034$) and of frequency of readership with extraversion ($B = -.12, \beta = -.17, t(177) = -2.28, p = .024$). Frequency of readership (but not typical reading behavior) was also marginally related to conscientiousness ($B = .12, \beta = .14, t(177) = 1.82, p = .071$). Additionally, a marginal negative association was found between participants’ typical reading behavior and internet trust ($B = -.18, \beta = -.12, t(174) = -1.66, p = .099$).

Among demographic variables, only race appeared to have any meaningful association with reading behavior. Specifically, logistic regression of whether participants were readers or non-readers revealed that, as compared to White participants, Black participants were more likely to indicate that they typically engaged in some form of reading ($B = 1.16$ (logit), SE = .61, Wald = 3.62, $p = .057$). The two participants in the sample who identified as Hispanic also identified themselves as readers, suggesting an additional, positive association between readership and race. The small number of Hispanic participants, however, cautions against generalizing from this finding. Moreover, closer inspection of the data also reveals that the results for both classes of participant were driven primarily by participants who stated that their typical reading behavior was to “skim looking mainly at headings and maybe read a little.” As a result, no significant association between racial categories and reading behavior appeared in a linear regression that used as the dependent variable participants’ responses to the Typical Reading Behavior Item.

Logistic regression revealed no other significant associations between whether a participant was a reader or non-reader, or how often they read, and any of the following characteristics: sex, age, year of college, citizenship, or any of the measures for SES (self-identified class, income, father’s highest level of education, and mother’s highest level of
education). As above, to confirm the absence of association, the relationship between each of these characteristics and participants’ responses to the Typical Reading Behavior Item was also tested using linear regression. These latter analyses confirmed the absence of any significant association with the exception of social class for which having one parent with a college degree had a marginal, negative association with readership ($B = -.41$, $\beta = -.14$, $t(174) = –1.92$, $p = .057$) and frequency of readership ($B = -.36$, $\beta = -.13$, $t(177) = –1.68$, $p = .095$). The significance of the association between frequency of readership and social class, however, disappeared upon controlling for participants’ race ($B = -.31$, $\beta = -.11$, $t(171) = –1.45$, $ns$).

Lastly, participants’ reading behavior was only moderately associated with past exposure to CTAs as measured by participants’ response to the question “How often do you see these agreements?” (1 = never; 6 = very often). Although linear regression of participants’ responses to this item on the Typical Reading Behavior Item revealed a negative relationship between past exposure and readership ($B = -.18$, $\beta =-0.17$, $t(174) = -2.34$, $p = .021$), logistic regression of this item on the binary reader/non-reader characteristic revealed no significant association. Likewise, using both of these techniques revealed no significant association between reading behavior and any of the following proxies for past exposure to CTAs: hours spent browsing the Internet each day, dollar value of on-line purchases per month, and 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 very little comprehension of the terms to which they have agreed—a finding that appears somewhat at odds with participants’ own ratings of their level of understanding. One possible explanation for this seemingly contradictory finding may be that
participants are simply reluctant to acknowledge their low level 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.” That is, the notion that one should avoid reading a CTA because they “all say the same thing” serves as a coherent explanation for non-readership only if one first understands the terms of the “form CTA.” Not surprisingly, Study 1 revealed a strong association between participants who reported a higher understanding of CTA terms and those who referenced the CTAs all say the same thing representation.

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 of Study 1 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 social representations of CTAs in explaining their reading behavior. In addition to the notion that CTAs all say the same thing, the most common social representations noted by participants as influencing their reading behavior 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 social representation that CTAs are irrelevant.

The perception that no one reads CTAs and that vendor reputation can substitute for reading had mixed effects on participants’ reported reading behavior. While participants made no direct reference to the behavior of others when asked to explain their behavior, the strong 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. With regard to vendor reputation, 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 representation also highlights an important limitation of Study 1 in terms of identifying what role social representations of CTAs play in determining non-readership: because even “readers” chose to read less than all of a CTA, the social representations identified in Study 1 can at most be said to correlate with a tendency to read less than all of a CTA. Accordingly, the question of whether these social representations might cause more absolute non-readership must be left to Study 2.

Lastly, several of the social representations predicted to be associated with non-readership appeared to have very little influence on participants’ reading behavior. In particular, very few participants made any reference to the representation that CTAs are incomprehensible in explaining their reading behavior notwithstanding some concern among commentators that vendors might use “legalese” to deter contract reading by consumers (Korobkin, 2003). Nor did participants explain non-readership on the basis that they believe CTAs are generally fair to consumers or that CTAs are not enforceable.

In terms of identifying correlates of reading behavior, the most notable finding in Study 1 was the extent to which non-readership cuts across virtually all personality types and demographic characteristics. With regard to participants’ demographic characteristics, Study 1 indicates that non-readership appears to persist across all income levels and other measures of SES. One possible exception is the influence of race on readership where, as compared to White
participants, both Black participants and Hispanics were more inclined to classify themselves as readers. The significance of this association, however, is diminished by the fact that the result was driven primarily by a large group of “skimmers” within these two classifications.

Similarly, there appears very little evidence that individual personality traits play a meaningful role in shaping reading behavior. The primary exception was the negative association between extraversion and readership. In light of research documenting a positive association between extraversion and overconfidence (Williams, Goodie and 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 Big-Five personality traits or other measures for sense of control, proclivity to trust, need for cognition or mindfulness, indicating that in the case of non-readership of CTAs, social representations may overwhelm individual differences.

Study 2

Overview and Hypotheses

Building on our understanding of the social representations of CTAs obtained in Study 1, Study 2 systematically examined the causal link between these social representations and readership behavior. Specifically, we hypothesized that if the social representations of CTAs identified in Study 1 were in fact shaping reading behavior, changing these social representations should result in an increase in the readership of these agreements. We further hypothesized that any increase in readership should yield greater comprehension of CTAs, particularly where the CTA was presented in a short, readable format. Lastly, we hypothesized a potential mediated
relationship between readership and contract acceptance in which an increase in CTA
comprehension created by increased reading should lead to a higher rate of contract rejection as
more participants processed (and then objected to) the CTAs’ terms.

Based on the results from Study 1, we expected that the marginal (incremental) effect on
reading behavior of different social representations of CTAs would differ in magnitude. In light
of the common and significant importance participants in Study 1 placed on the representation
that *CTAs are too long*, we expected that changing the simple perception of CTAs from being
long and time-consuming to short and skimmable would have the greatest effect on increasing
readership. Manipulating the perceptions that CTAs *all say the same thing*, that they are *irrelevant to me*, and that they offer *no choice* were also expected to increase readership
regardless of whether the CTA was long or short. We also expected that manipulating the
representation 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
representation. 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 on the basis that
participants would avoid reading where a vendor’s interest in maintaining a positive reputation
should deter the vendor from offering unreasonable or unfair terms. 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 the University of Georgia 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

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. To avoid biasing participants towards reading the CTA, 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. All 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 both the risk that participants might feel unvested in the experience and not read and the need to replicate real-life registration, the site required that participants enter information for all entries (including their names, email addresses, a unique userid and a password).\(^1\)

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 modify each of the social representations hypothesized to affect readership of the CTA for PDM other than

\(^1\) No data, however, was retained by the server or on the local disk drive.
the representation that *CTAs are too long and time-consuming*. Specifically, 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 social representations 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 that 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 those participants who were presented with Note 5 (CTA can be modified). Whether presented with the long form or the short form of the CTA, 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 (reproduced at Appendix C) where they could modify select terms for a specified amount of money using a drop-down menu.

*Recording of CTA Behavior*

For all participants, 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 or declined the CTA. For those participants given the
option of modifying the CTA, the PDM site also recorded whether the participant elected to modify the agreement as well any modifications that were made. 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.2

Questionnaire

Finally, after their use of the website, all participants completed a questionnaire with items relating to their readership and comprehension of the CTA, their perception of the CTA, as well as demographic information and information regarding their use of the Internet.3

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 tap into 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.").

Manipulation checks. During the questionnaire, participants were also asked a series of questions to check the effectiveness of each manipulation. To assess the effectiveness of Note 2 (Most people read the CTA), participants were asked to describe “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 (CTA is relevant to you), participants were asked to describe “how relevant to you is the Terms of Use for PublicDomainMusic.com” (1 = not very relevant, 10 = very relevant). To gauge the effectiveness of Note 4 (CTA has different terms), participants

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2 Because no email addresses were stored for privacy considerations, the service did not actually email the songs to participants. Participants were informed of this during debriefing and advised of the actual website where they could obtain without charge the music files they selected.
3 All questions in the questionnaire were embedded among distractor items, and participants were prevented from turning back to revise earlier responses.
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 (CTA can be modified), participants reported agreement (1 = disagree strongly, 10 = agree strongly) with the following statement: “With regard to the Terms of Use presented on the web site, I had some control in negotiating the terms.” To test the effectiveness of Note 6 (CTA being offered by reputable vendor), participants were asked to characterize PublicDomainMusic.com (1 = very reputable and 10 = very disreputable). Lastly, to test the manipulation of the perception that CTAs are too long and time-consuming, participants were asked to assess the length of the Terms of Use for PDM (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 presentation of the CTA.

Use of internet and demographics. Finally, four items assessed importance of on-line usage, including importance of using the internet and of using music web sites (asked on scales of 1 = not at all important to 7 = extremely important). Responses were averaged together to form a composite (alpha). Participants were also asked about the importance of understanding their legal rights on the same 7-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 either 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 from analyses, leaving 240 participants for analysis. 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 the social representation of the CTA. Second, we explored the effect of these manipulations on participants’ readership of the CTA. Third, we explored the effect of the manipulations on participants’ comprehension of the CTA’s terms. Lastly, we examined the extent to which these manipulations affected participants’ rate of acceptance of the CTA and, by extension, whether the manipulations might enhance the willingness of participants to “shop” terms.

Manipulation Checks

To assess the effectiveness of our manipulations, we used multiple regression to examine whether participants’ responses to each question testing the manipulation (as summarized above) were affected by the modified social representations. The results indicate a strong, highly significant association between offering the short version of the CTA and participants’ perception of the CTA as short (B = -2.62, β = -.57, t(225) = -10.37, p < .000). Likewise, the results indicate a strong, significant association between the manipulation and the expected
response to the manipulation check for Note 3 (CTA is relevant to you) \( (B = 1.09, \beta = .17, t(225) = 1.97, p < .05) \) and Note 5 (CTA can be modified) \( (B = 1.99, \beta = .31, t(224) = 3.92, p < .000) \).

The results were mixed with respect to Note 2 (most people read the CTA), Note 4 (CTA has different terms), and Note 6 (CTA offered by reputable vendor). For Notes 2 and 4, the regressions yielded modest effects in the expected direction \( (B = -0.29 \text{ and } B = -0.08, \text{ respectively}) \) but were not significant under conventional standards. The regression for Note 6 yielded the opposite sign than was expected \( (B = 0.32) \) and was also insignificant. Given the results below concerning Note 4, it is likely participants’ responses to the manipulation check for Note 4 were confounded by the experience of having already read (or skimmed) through the CTA. Specifically, participants’ perception of whether the CTA was more or less similar to other click-through agreements may very well have been driven by their assessment of the CTA itself rather than the manipulation that preceded it. For this reason, a more effective manipulation check for Note 4 is arguably the post-experiment debriefing question, where a sizable majority of participants’ assigned to Note 4 (59%) recalled the manipulation statement. Likewise, for Note 6, while participants may have taken note of the reputation of the vendor (Google) during the manipulation, the manipulation check item may only have picked up their appraisal of the reputation of the unknown web site (PDM) after clicking through the site. Finally, with respect to Note 2, 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.\textsuperscript{4} 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 CTA social representations on participants’ readership, we turned to multiple regression. 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 the length of the CTA (1=\textit{short}; 0=\textit{long}). Given that participants’ readership behavior might also be influenced by personal factors unrelated to the form of CTA they were given, we also controlled for participants’ gender, age, race, and socio-economic background. Additionally, controls were included reflecting 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 participants’ 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 marginal effect of these three conditions, the regression model indicates that assigning a participant to Note 3 increased readership by approximately 14 seconds on average compared to when a participant was assigned to the Control (long, standard) Condition, holding constant all covariates at their means

\textsuperscript{4} 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.
(dichotomous variables were held constant at their modes). Notes 4 and 5 had an even greater marginal effect on participant readership, with Note 4 increasing readership by approximately 62 seconds and Note 5 increasing readership by approximately 24 seconds. By comparison, the regression model indicates that assigning a participant to Notes 2 and 6 had statistically insignificant marginal effects on readership of 14 seconds and 2 seconds, respectively.

Similarly, using the short version of the CTA had a significant, positive effect on readership (See Table 4). However, the effect of using the short version of the CTA depended on the Note. In particular, for participants assigned to Notes 2, 3, 4, and 5, assigning the short version of the CTA led participants to spend less time reading the agreement than when they were presented with 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, the effect was not necessarily additive to the effect on readership achieved by manipulating the representation of the CTA in the Note. On the contrary, to the extent modifying the social representation in the Note encouraged participants’ to invest more time in reading the CTA, the use of a shorter CTA appears to have served primarily to lessen the cost of this investment.

In addition to these general findings, we also examined the extent to which modifying the CTA’s social representation 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 (unreported), suggesting that
the results are not driven by participants’ typical reading pattern.

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 included
participants who typically “skim looking mainly at headings and maybe read a little” as well as
those who read somewhat carefully or who read carefully. 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
modering effect of typical reading behavior on the relationship between experimental condition
and time spent reading for Note 5 (B = -1.466, β = -.30, t(187) = -1.87, p = .06), and for the short
version of the CTA (B = -1.682; β = -.61, t(187) = -2.27, p = .024). In other words, the
effectiveness of these two conditions on increasing readership was driven largely by participants
who traditionally do not read on-line agreements.

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. There were four multiple choice (a-d) and 10 true/false
questions; therefore, if answering at chance, a participant’s score would be 42.86%.
Regression analysis revealed a significant effect of CTA length on comprehension (See Table 4), with participants given the short version obtaining higher scores on the quiz (M = 69.3%, SD = 15.5%) than those given the long version (M = 57.2%, 14.7%). In contrast, none of the other experimental variables had a significant effect on quiz comprehension. 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 for PDM, all thirteen participants who rejected the CTA answered “yes” ($\chi^2(1) = 6.73, p < .01$). Likewise, a logistic regression of the decision to decline regressed on the amount of time spent reading the CTA revealed a strong, positive association between declining the CTA and time spent reading ($B = 1.4$ (logit), SE = .39, Wald = 12.96, $p < .000$). To test whether this relationship was mediated by CTA comprehension, we also ran a logistic regression of the decision to decline the CTA on participants’ comprehension (as measured by their quiz score), which revealed a strong, positive association ($B = 4.60$ (logit), SE = 1.95, Wald = 5.61, $p < .05$). The significance of this latter finding disappeared, however, upon controlling for time spent reading, suggesting general comprehension of the CTA did not mediate the relationship between time spent reading and CTA rejection. 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. In combination, these results suggest that while the decision to decline the CTA did not necessarily reflect a better understanding of the entire CTA, it 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, χ(1) = 2.96, p < .10 ) 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 participants’ rates of rejection.

Discussion

As predicted, modifying the social representations of CTAs had a significant effect on participants’ willingness to read the CTA for PDM. In contrast to the control condition, participants spent significantly more time reading the CTA 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 modifying the widely-

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5 Of the nine participants who elected to modify the CTA, five elected to change the CTA’s default privacy provision to prohibit PDM.com’s sharing of personal information with third-parties.
held perceptions 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 these widely held representations of CTAs may be an important factor in deterring CTA readership. In addition, the possibility remains that the social representation 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 appeared to have had any significant effect on the likelihood that a participant would reject it. Given the positive association between contract comprehension and contract rejection, 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 would increase the salience of contract terms and thereby enhance consumer shopping for the most optimal terms.

Lastly, Study 2 indicates that by presenting readable, more salient contract terms, vendors need not lose those consumers who might object to them. Notably, even though Note 5 had a significant, positive effect on participants’ reading of the contract, the fact that participants could modify objectionable terms 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 social representations of CTAs? Lastly, to the extent social representations of CTAs contribute to non-readership, would modifying these social representations 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 social representation theory may provide an explanation for CTA non-readership given the prevalence with which participants referenced several discrete, common perceptions of CTAs in explaining their behavior. 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.

Perhaps the most interesting finding of Study 1 was the extent to which 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 consumers’ limited cognitive resources as an explanation for non-readership (e.g., Hillman & Rachilinski 2002), one might expect some degree of association between reading behavior and these two measures. Instead, the central role of cognition appeared in participants’ self-assessment of how well they understood CTAs in which those participants who measured high in mindfulness and mastery reported a greater understanding of CTAs regardless of whether they identified as readers or non-readers. As such, the primary influence of high levels of cognition appeared to be a heightened willingness to engage in motivated reasoning (Kunda, 1990) such that self-reported CTA understanding conformed to perceived personal mastery and/or mindfulness.

At its most general level, the absence of association between individual cognition and readership would seem to call into question whether 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, cognition of CTAs is important, particularly for those having personality traits that might incline them to accept the cognitive challenges of reading a CTA and engaging with its terms. Instead, the prevalence of the social representations 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 2008). Rather, participants seem to care quite a bit about understanding CTAs, and by creating the perception that there is something to learn from reading them, participants were willing to undertake a greater reading investment.

Similarly, Studies 1 and 2 suggest that the widely-held perception 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 traditional “cognitive load” theory of non-readership. To the extent consumers prefer 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.
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 an important 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 lead 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 and convenient fashion.

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 modifying the social representations of 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 for participants. In combination, Studies 1 and 2 thus suggest that by impairing readership of CTAs, the social representations 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 most 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 under-appreciate the legal significance of entering a contract. Either of these traits might contribute to a more pronounced tendency to engage in blind consent. Accordingly, future research should consider how CTA social representations affect older, more experienced populations as well as how these social representations affect contracting behavior outside the context of on-line music.

Second, identifying the causal relationship between the social representations of 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 social representations 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 the effect of the social representations used in Study 2 given that the readership behavior associated with each
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 CTA social representations on an individual’s reading behavior at several points in time. Such an approach would also have the benefit of permitting a fixed-effects regression estimation, which would better control for the effect of unobserved variation in individual reading behaviors.

Lastly, although these studies question the prevailing “cognitive load” theory of CTA non-readership, neither study was designed to test whether other cognitive limitations and biases might impair meaningful assent to a CTA. 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 also moderate the effect of CTA readership on CTA comprehension and CTA shopping. In the context of federally mandated consumer credit disclosures, 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.
Conclusion

Notwithstanding these limitations, the studies presented here suggest that the social representations of CTAs play an important role in understanding the phenomenon of blind consent. By deterring CTA reading, the social representations identified in Study 1 effectively impaired participants from cognitively 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 representation theory 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 representation theory may provide a potentially powerful framework with which to examine the overall efficacy of mandatory disclosure as a regulatory device.
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Table 1

_Self-Reported Explanations for Non-Readership: Coding Categories, Percentage of Explanations Coded Into Categories, and Category Examples_

<table>
<thead>
<tr>
<th>Coding category</th>
<th>Example</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTAs are too long and time-consuming</td>
<td>“it takes a really long time”</td>
<td>29.7%</td>
</tr>
<tr>
<td>CTAs all say the same thing</td>
<td>“Because they are all the same and boring.”</td>
<td>29.1%</td>
</tr>
<tr>
<td>CTAs offer no choice but to accept</td>
<td>“if you want to get to the desired ‘page,’ you must agree”</td>
<td>19.2%</td>
</tr>
<tr>
<td>Apathy</td>
<td>“I just do not care enough to read them”</td>
<td>17.6%</td>
</tr>
<tr>
<td>Reputation and trust</td>
<td>“If it’s a well known company, I trust them.”</td>
<td>17.0%</td>
</tr>
<tr>
<td></td>
<td>“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”</td>
<td></td>
</tr>
<tr>
<td>CTAs are irrelevant to me</td>
<td>software in a legal fashion, I won’t violate anything in the CTA’s that I haven’t read”</td>
<td>16.5%</td>
</tr>
<tr>
<td>CTAs are incomprehensible</td>
<td>“They tend to be badly written legal style.”</td>
<td>6.0%</td>
</tr>
<tr>
<td>CTAs are generally fair</td>
<td>“I generally…figure it’s not anything too crazy that they are asking me about so I just accept”</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>“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”</td>
<td></td>
</tr>
<tr>
<td>CTAs are not enforceable against me</td>
<td></td>
<td>0.5%</td>
</tr>
<tr>
<td>Note #:</td>
<td>Social Representation Addressed</td>
<td>Experimental Manipulation</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1 (Standard)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>No one reads CTAs</td>
<td>Most people read CTAs</td>
</tr>
<tr>
<td>3</td>
<td>CTAs are irrelevant to me</td>
<td>CTA provides important information that is relevant to you</td>
</tr>
<tr>
<td>4</td>
<td>CTAs all say the same thing</td>
<td>CTA provides terms that are unique</td>
</tr>
<tr>
<td>5</td>
<td>CTAs offer no choice</td>
<td>CTA can be modified prior to acceptance</td>
</tr>
<tr>
<td>6</td>
<td>Vendors rely on reputation rather than CTA</td>
<td>Vendor offering CTA is reputable</td>
</tr>
</tbody>
</table>

**Format Used in Presenting CTA (manipulation interacted with all Six Notes)**

<table>
<thead>
<tr>
<th>Format</th>
<th>Social Representation Addressed</th>
<th>Experimental Manipulation</th>
<th>Format Change</th>
<th>Expected Result on Readership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long vs. short</td>
<td>CTAs are too long and time-consuming</td>
<td>CTA is short and skimmable</td>
<td>For each of Notes 1-6 a summary of the CTA was presented in lieu of a scroll-box containing the entire CTA.</td>
<td>Increase</td>
</tr>
</tbody>
</table>
Table 3

Mean time spent reading (measured as total seconds spent reading the CTA), standard deviation, and number of observations for each manipulation used in Study 2

<table>
<thead>
<tr>
<th>Note:</th>
<th>Length of CTA:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long</td>
</tr>
<tr>
<td>#1: Standard</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>35.4a</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>#2: No one reads CTAs</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>56.6</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>#3: CTAs are irrelevant to me</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>60.4</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>#4: CTAs all say the same thing</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>101.2</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>#5: CTAs offer no choice</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>66.4</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>#6: Vendors rely on reputation</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>All:</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>58.7</td>
</tr>
<tr>
<td></td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
</tbody>
</table>

*a The long, standard Note served as the control condition.
Table 4
Regression Analysis of Experimental and Control Variables Predicting Time Spent Reading, Comprehension, and Probability of Rejection

<table>
<thead>
<tr>
<th></th>
<th>Time Spent Reading (log(time))</th>
<th>Comprehension (quiz score)</th>
<th>Probability of Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>β</td>
</tr>
<tr>
<td><strong>Experimental variables:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People Read CTA (Note 2)</td>
<td>0.48</td>
<td>0.35</td>
<td>0.16</td>
</tr>
<tr>
<td>CTA is relevant (Note 3)</td>
<td>0.70</td>
<td>0.34</td>
<td>0.22</td>
</tr>
<tr>
<td>CTA has different terms (Note 4)</td>
<td>1.71</td>
<td>0.33</td>
<td>0.57</td>
</tr>
<tr>
<td>CTA can be modified (Note 5)</td>
<td>1.01</td>
<td>0.33</td>
<td>0.31</td>
</tr>
<tr>
<td>CTA offered by reputable vendor (Note 6)</td>
<td>0.16</td>
<td>0.34</td>
<td>0.05</td>
</tr>
<tr>
<td>Short Version of CTA</td>
<td>1.05</td>
<td>0.35</td>
<td>0.45</td>
</tr>
<tr>
<td>Note 2*Short</td>
<td>-0.57</td>
<td>0.47</td>
<td>-0.15</td>
</tr>
<tr>
<td>Note 3*Short</td>
<td>-0.89</td>
<td>0.47</td>
<td>-0.22</td>
</tr>
<tr>
<td>Note 4*Short</td>
<td>-1.67</td>
<td>0.47</td>
<td>-0.43</td>
</tr>
<tr>
<td>Note 5*Short</td>
<td>-1.51</td>
<td>0.50</td>
<td>-0.31</td>
</tr>
<tr>
<td>Note 6*Short</td>
<td>-0.16</td>
<td>0.46</td>
<td>-0.05</td>
</tr>
<tr>
<td><strong>Control variables:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of on-line usage</td>
<td>-0.25</td>
<td>0.06</td>
<td>-0.25</td>
</tr>
<tr>
<td>Importance of understanding legal rights</td>
<td>0.10</td>
<td>0.05</td>
<td>0.15</td>
</tr>
<tr>
<td>Typical reading behavior</td>
<td>0.28</td>
<td>0.07</td>
<td>0.29</td>
</tr>
<tr>
<td>Ever downloaded music</td>
<td>0.49</td>
<td>0.21</td>
<td>0.14</td>
</tr>
<tr>
<td>Owns MP3 player</td>
<td>0.57</td>
<td>0.23</td>
<td>0.15</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.18</td>
<td>0.18</td>
<td>-0.06</td>
</tr>
<tr>
<td>Age</td>
<td>0.04</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>Race</td>
<td>0.24</td>
<td>0.17</td>
<td>0.08</td>
</tr>
<tr>
<td>Social class</td>
<td>-0.17</td>
<td>0.16</td>
<td>-0.06</td>
</tr>
<tr>
<td>Constant</td>
<td>0.70</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

Note. Linear regression was used to analyze Time spent reading and Comprehension; logistic regression was used to analyze Probability of rejection. 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.
Figure Captions

Figure 1. Typical reading behavior when presented with CTA

Figure 2. Typical response when presented with objectionable CTA terms
Percent of Respondents

- Do not read at all (simply click)
- Scroll without really reading anything
- Skim looking mainly at headings but do not really read anything
- Skim looking mainly at headings and maybe read a little
- Read somewhat carefully
- Read carefully
click "I agree" and live with the terms

click "I agree" with the expectation that you would protect the terms if they were enforced

click "I disagree" and look for an alternative vendor with more acceptable terms

click "I disagree" and do not look for an alternative vendor

Percent of Readers/Non-Readers

- click "I agree" and live with the terms
- click "I agree" with the expectation that you would protect the terms if they were enforced
- click "I disagree" and look for an alternative vendor with more acceptable terms
- click "I disagree" and do not look for an alternative vendor

non-readers
readers
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:

- **First Name**
- **Last Name**
- **Address 1**
- **Address 2**
- **City**
- **State**
- **ZIP Code**
- **Primary Phone**
- **Email Address**
- **Re-enter Email Address**

Telephone is required in case there are questions about your account.
Valid email address is required to complete registrations.

**Your UserID and Password**

All fields are required:

- **Create a UserID**
- **Create a Password**
- **Re-enter Password**

Password must be 5 characters minimum.

**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:

Terms of Use

THIS IS A LEGAL AGREEMENT BETWEEN YOU AND PUBLICDOMAINMUSIC.COM, INC. ("PD") STATING THE TERMS THAT GOVERN YOUR USE OF THE PD 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 PD MAY REFUSE ACCESS TO THE PD SERVICE FOR NONCOMPLIANCE WITH ANY PART OF THIS AGREEMENT.

1. Definition of the PD Service. PD 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.

Continue
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 the Service (or any part or feature 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.

[Continue]
Appendix C

Modification Condition (for short form)

Custom Terms of Use:

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 customized. Your choice of terms is limited to those weeks that contain a drop-down menu. You must make a selection for all customisable 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 terms is indicated in the drop-down menu. If the applies, you will be billed separately.

RESTRICTIONS ON USE OF MUSIC FILES:

1. 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 three (3) times.
   - 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. Privacy Information:
   - PDM may share your Registration Data or other personal information with PDM's employees and agents, persons or 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]
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 the Service (or any part or content thereof) at any time with or without notice to you.
2. PDM may terminate your rights to use all or any 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 downloaded.
2. Disputes:
   - 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]

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.

Total Cost of Terms Changes: $0.00

- [ ] 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.

Continue