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**An Experimental Test  
of the Effectiveness  
of Terms & Conditions**

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## AN EXPERIMENTAL TEST OF THE EFFECTIVENESS OF TERMS & CONDITIONS

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### **ABSTRACT**

Requiring individuals to consent to “terms & conditions” is the overwhelmingly dominant strategy used to try to curb unauthorized use of products like motion pictures and music. This study is the first to employ a randomized controlled behavioral experiment testing whether this strategy is as effective as other means of achieving this goal. Individuals randomly assigned to either a “terms and condition” (“T&C”) frame or alternative frames (promise-keeping, trust, threat, naked request, and a control) were presented an opportunity to take an online presidential election poll more than once (and receive additional remuneration each time they did), even though they were made aware that they were not authorized to do so. The T&C frame was the least effective at keeping subjects from taking the poll more than once. Asking individuals to promise not to behave in the undesirable way, or signaling trust that they would not behave in the undesirable way were the best frames for curbing unauthorized multiple poll-taking.

(JEL: C93, D03, D86, K12, Z13)

## 1. Introduction

Imagine that you are general counsel for a Hollywood studio that produces and licenses hundreds of millions of dollars worth of intellectual property per year in the form of theatrical motion pictures, television shows, and related entertainment media content.<sup>1</sup> You have a big problem. The problem is that your customers purchase only a *license* to view or listen to that intellectual property.<sup>2</sup> But, in order to let them view or listen to the content, you have to grant them access to possess and control your company's valuable intellectual property. Once they have the content, readily available technology makes it possible for them to cheaply and expeditiously copy and distribute it as they wish. You desperately need to prevent that from happening because licensing the consumption of intellectual property is a primary way your company generates revenue. So, how should you handle this problem? How would you handle this problem?

All Hollywood studios have handled this problem the same way. They require every individual who purchases the rights to view, listen to, or otherwise consume their intellectual property to consent to a subset of "Terms & Conditions" often called "end-user license agreements" or "EULAs". "Terms & Conditions" associate with the license agreement when one purchases the intellectual property in question. For transactions occurring online, individuals consent to terms and conditions by clicking a box on a website. There are at least three plausible explanations for why companies have so overwhelmingly selected the strategy

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<sup>1</sup> It is my understanding that such companies frequently pass their license agreement terms through intermediary entities responsible for distribution of intellectual property produced by content producers like Hollywood studios. Even if this is not the case, such studios still care a great deal about the unauthorized exploitation of their content, and are therefore likely to exert indirect control over the license agreements between such intermediary entities and end-users. Even if this were not the case, the same point about license agreement policing made in this paper could apply to intermediary entities as well as to the Hollywood studios discussed.

<sup>2</sup> For a discussion of why companies sell only the license to view or listen to content, see Brian Mencher, *Online Music Distribution: Proposal for a Digital First Sale Doctrine*, 21 ENT. & SPORTS. L. 16-23 (2003-04).

of using EULAs to stem the tide of unauthorized digital *piracy*, as it is often called. First, lawyers are expected to use law to solve problems, and contracts are a readily available tool in lawyers' tool kits when it comes to regulating terms of exchanges. Attempting to solve the problem of unauthorized duplication and distribution of content with contracts is likely the most convenient and accessible strategy. Terms and conditions are convenient and known instruments. If and when individuals breach those contracts, lawyers know what to advise their clients to do. Sue the breaching parties and recover the damages directly and proximately caused by the breach. This is the familiar story of a hammer seeking a nail. In this same vein, terms and conditions satisfy the lawyerly need to put consumers on notice of terms, or at least provide the *opportunity* to be on notice of terms, given the fact that very few people read these contracts (Bakos, Marotta-Wurgler and Trossen 2009; Eigen 2012b). Lawyers need to put consumers on notice, not so individuals understand their obligations ex-ante, but rather, so that if a dispute arises, there is evidence readily available that the company notified individuals that the terms attached to the deal.

Second, there are the powerful twin motivators of inertia and risk avoidance. Lawyers at a firm do not like to be sued for malpractice any less than in-house counsel enjoy being fired. So generally speaking, it is a wise and rational self-preserving strategy to avoid reinventing the wheel or doing something differently from every other lawyer working for other similarly situated companies or firms. If every lawyer before you relied on terms and conditions to solve a problem, you should too. How could a client fault you for using the same tactics as every other lawyer? If every other firm and Hollywood studio uses terms and conditions, so should you, for the same reason. As research suggests, inertia (or over-weighting preferences for the status quo) and risk-avoidance are powerful motivators of behavior and decision making generally. (Allen and Lueck 1995; Sitkin and Pablo 1992; Tversky and Kahneman 1981; Vega-

Redondo 1995). Hollywood lawyers are likely not immune from these forces, nor should it be said that self-preservation is not a rational motivation for decision-making.

Third, a rational decision-making lawyer is likely to conclude that the benefits of using contract to police behavior outweigh the costs. In the end, the sole purpose of terms and conditions is to reduce the costs associated with the unwanted behavior. This could be accomplished by reducing the number of times the behavior occurs, the number of individuals likely to behave in the undesirable way, or the average cost per violation. The theory goes that without EULAs in place, there would be unbridled unauthorized copying and distributing of studios' valuable intellectual property, and companies would be left with greater costs of policing *implied* contractual rights in court, instead of being able to rely on the explicit wording of the "fine print."<sup>3</sup> Simply put, the benefits of having a EULA in place on which to rely in order to sue individuals the company catches violating the terms and conditions outweigh the costs associated with not affixing a EULA to every intellectual property sale.

Each of these rationales is flawed. First, from the company's perspective, its options should not be artificially restricted to the confines of the toolkit of the company's risk-avoiding attorneys or outside counsel. Attorneys are incentivized to ensure that their clients cannot blame them for legal problems. But this is not the only consideration of studios. Companies should decide whether terms and conditions are the best means to stymie unauthorized reproduction and distribution of intellectual property as compared to alternative non-legal means. In the real world, this is not done systematically, if at all. The goal of putting individuals on notice of terms is only important to the extent that costs associated with the exchanges are reduced. If that end-goal is not in sight, what does the notice matter? For

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<sup>3</sup> Alternatively, or additionally, this would augment reliance on Copyright protections, which may be less desirable for reasons beyond the scope of this article.

instance, if putting a consumer on notice of a term permitted a company to successfully sue that consumer for \$5,000, but it costs the company \$50,000 in legal fees, it seems obvious that the company would be better off if the consumer's behavior were changed, instead of having to rely on the legal process ex-post to recover damages associated with unwanted behavior that could have been deterred for a lower cost.

Second, inertia and risk-avoidance strategies taken by rationally self-preserving individual agents are unlikely to lead to efficient decision-making on behalf of the principal organization. Third, the argument that the costs outweigh the benefits may not be empirically true. The premise is that the total net costs associated with illegal downloads with EULAs in place are lower than the total net costs associated with illegal downloads without EULAs in place. To evaluate this premise, one needs to evaluate whether the costs of putting EULAs in place plus the lost revenue from improper duplication and distribution of content, plus the costs of policing the EULAs are less than the lost revenue from duplication and distribution of content in the absence of EULAs, net of the saved costs from implementing and policing EULAs. A lot of this critical calculation depends on whether and by how much the rate of unauthorized duplication and distribution of content would change in the world in which EULAs are removed, and alternative deterrence strategies employed.

It may not be the case that when the fences of legally valenced "Terms & Conditions" are taken down, that this would signal to the masses to start downloading without refrain. In fact, there is some empirical evidence, and a theoretical basis to suggest that the opposite would happen. There may be *less* unauthorized downloading without "Terms & Conditions" purporting stop piracy (Eigen 2012b; Eigen 2012c; Sullivan 2007). Additionally, it is not clear that it is true that the costs associated with policing and enforcing the contract outweigh the benefits associated with the assumed reduction in unauthorized downloading produced by the

threat of breaching the contract or breaking the law. The argument is based on the assumption that individuals perceive the threat of getting caught as credible even though the odds of actually getting caught violating the terms & conditions are so minute, *or*, that individuals respond to a positivistic threat to obey the contract, or to obey the law, and so this would reduce the rate of unauthorized reproduction independently of the need to police the agreement by suing people (once they are identified). However, evidence suggests that neither of these assumptions is right (Eigen 2012c).

Regardless of the actual reason(s), it is evident that terms and conditions are the dominant method for attempting to stymie the tide of unauthorized reproduction and distribution of intellectual property in the entertainment industry. Terms and conditions are the dominant paradigm for policing undesirable individual behaviors in other industries too. In fact, form-contracts and recitations of “terms and conditions” are clearly the dominant means of regulating exchanges between organizations and individuals generally. It is important to note that terms and conditions serve other important *legal* purposes like notifying consumers of terms unrelated to unwanted behaviors. But, this could be done separately from the contractual obligation to not behave in the undesirable way, and it does not make sense to consider these things independently. That is, ultimately, the set of other terms and the directive not to behave in the undesirable way should both fall under the heading of, “what things have to happen in order to make the underlying exchange worth it to the drafting party.” So, even accounting for the other terms component of terms and conditions, there is a strong need to understand the relationship between the frame of the directive not to behave in the unwanted manner, and the rates at which individuals behave that way anyway.

In spite of the ubiquity of this mode of attempting to police unwanted activities like unauthorized duplication and sharing of media, this quotidian means of policing behaviors has

not been sufficiently scrutinized empirically, and has not been adequately tested against alternative means of achieving the same goal (Eigen 2012a). This paper offers experimental behavioral evidence of the relative ineffectiveness of terms and conditions relative to other low(er) cost alternatives at reducing the rate of an unwanted behavior. The non-terms-and-conditions alternatives this study evaluates are based on research in social psychology and behavioral economics: trust, threat, promise, and reciprocity. The research involves an online poll offered on desktop and laptop computers with an internet connection (but not PDAs, smartphones, tables or other hand-held devices) in the week before the November 2012 presidential election. The poll was set up online so that after subjects answered six very quick questions from simple drop-down menus, they were given a code for one or two dollars that they could use on Amazon.com anonymously. At no time did participants have to disclose *any* personally identifiable information (such as name, email address, or any contact information) to the researchers. From participants' vantage, it would seem that there was nothing preventing them from spending another twenty to thirty seconds to take the poll again, which would generate a *new* code, and more anonymous money they could extract. From their perspective, they could keep taking the survey again and again, earning an approximate pay-out of \$120 to \$240 per hour. The experiment used information from subjects' browser, IP address, and geo-positional location to identify individuals and keep track of how many times each person took the poll.<sup>4</sup> The experiment cut subjects off after taking the poll a maximum of four times, and receiving Amazon codes (money) for the first three times.

907 participants were randomly assigned to one of six frames attempting to prevent them from taking the poll more than once: (1) a control frame in which subjects were not given

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<sup>4</sup> To maintain the confidentiality of the subjects, this information was not stored or maintained with the data for the research. Instead, each subject is identified only with a unique subject ID number.

additional information, nor were they asked not to take the poll more than once, (2) a “naked request” frame that tipped subjects off that they could get away with completing the poll more than once, but asked them not to do so, (3) a “promise” frame in which subjects were tipped off and asked to click a box indicating their promise not to take the poll more than once, (4) a “fraud” frame in which subjects were tipped off, and admonished that taking the poll more than once was fraudulent, (5) a “trust” frame in which subjects were tipped off, and informed that the researchers trusted them not to take the poll more than once, and finally, the operative frame against which the others would be tested, (6) a “terms & conditions” frame (T&C) in which participants were tipped off, and required to check a box indicating their consent to a set of terms & conditions that they were informed contained terms saying that they will only take the poll one time.

In short, the results reveal the ineffectiveness of terms and conditions at preventing the undesirable behavior measured in this study—taking the survey more than once. Subjects randomly assigned to the T&C frame were statistically significantly more likely to take the poll more than once (after clicking to agree to the terms and conditions saying they would not do so), as compared with the trust, promise, and control frames, and marginally statistically significantly worse than the naked request frame. There was no statistically significant difference between the percentage of subjects who took the survey more than once in the T&C frame as compared to the percentage of subjects who took the survey more than once in the fraud frame. The trust frame generated the greatest proportion of subjects who took the poll one time and then stopped on their own accord. It was the most statistically significantly most effective frame compared to the terms and conditions frame at preventing unauthorized poll recidivism.

Before explaining the methodological strategy, this paper first articulates the empirical and theoretical framework for the study. The paper next explains the experimental design and results, after which follows a discussion, the limitations of the study, and then the conclusion.

## **2. Theoretical and Empirical Motivation**

Classic economic theory predicts that individuals contractually obligated not to duplicate intellectual property should be more likely than individuals not so obligated to refrain from that behavior because the marginal costs associated with the admittedly low risk of getting caught should dissuade people from doing this (Bebchuk and Posner 2006). Similarly, a contractual obligation increases the social costs of breach (Molm 1997: 26). However, research in social psychology, sociology, and behavioral economics suggests that there may be alternative means of discouraging unwanted behaviors that could be regarded as dishonest,<sup>5</sup> such as taking a presidential poll more than once (and getting paid more than once for doing so), or duplicating and distributing a digital file that one likely understand one should not do without paying for it. The goal for this study was to identify the most prominent plausible

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<sup>5</sup> One may argue as to whether taking the survey more than once ought to be labeled “cheating” or behaving “dishonestly.” Answering this question is likely a matter of perspective taking. Assuming that subjects believed the underlying premise of the exchange in which they were to receive either \$1 or \$2 in exchange for their honest answers to six short questions about the presidential election, it seems rather straight-forward and hard to dispute the labeling of ballot-stuffing as anything other than dishonest, cheating, or even theft. But, if one does not adopt the subject’s vantage, and considers the fact that the experiment was designed to measure repeat poll taking behavior, then one may regard ballot-stuffing as no more than participation in an experiment, without affixing the negative “dishonest” label to the behavior. Furthermore, one cannot rule out the possibility that some randomly distributed percentage of the subjects honestly took the survey, refreshed their browser and let their spouse or roommate take the survey. This does not impact the findings at all, but makes it possible that not all instances of taking the survey more than once were done dishonestly, even from the subjects’ vantage. The normative question is a philosophical one and beyond the scope of this study. The term “cheating” may be used as a placeholder for taking the poll more than once, but this is done as a matter of simplified writing, and not as a means of casting a normative judgment about the behavior.

alternative strategies for decreasing the rate of repeat survey taking behavior, and test those against the standard method of requiring consent to terms and conditions. A review of relevant research pointed to “trust,” “promise,” and “threat.” Additionally, a naked request not to behave in the undesirable way coupled with the absence of the standard legally threatening “terms and conditions” likely signals *reciprocal exchange*, which could yield improved behavioral responses. Because naked reciprocity is also a plausible alternative strategy, the naked request is also included as one of the experimental frames tested.

### 2.1. *Trust*

Trust is a relatively elusive construct to define (Kramer and Tyler 1996; Ostrom and Walker 2003). It can be conceived of as a psychological state, or as choice behavior (Kramer 1999). A lot of research focuses on when and why social actors trust organizations or other individuals. This research presents varied accounts of the precursors for trust (Cook, Hardin and Levi 2005). In general, it is hard to precisely and uniformly describe what things lead people to be more trusting of a particular organization or individual. There is, however, significantly greater unanimity regarding the product of trust, in terms of what is to be expected in the observably distinct behavior of a subject who trusts an entity as compared to another subject who distrusts that entity (Kramer 1999; Kramer and Tyler 1996; Williamson 1993). When an individual trusts an entity, that individual is more willing to behave in a manner that increases that individual’s vulnerability for potentially harmful reciprocal treatment (Butler Jr 1991). Vulnerability is reciprocal—because each counterpart to an exchange is able to harm the other, each tolerates the vulnerable state in which they allow themselves to assume voluntarily in order to reap the benefit of the underlying exchange. For instance, actor “A” might trust actor “B” to hold A’s wallet (and not steal it), so that A could do something without having to hold his wallet. Researchers might disagree on the true basis for A’s decision to trust B with his wallet. However, there is significantly greater agreement on the

expected behavioral response by A following this exchange: A is more likely to reciprocate by passing up an opportunity to exploit B's vulnerability.

Interestingly, trust and contract are often theorized as substitutes (Malhotra and Lumineau 2011). When one does not trust one's counterpart in exchange, one uses contract to ensure compliance with desired behaviors. However, in reciprocal exchange, trust takes the place of a binding contract that memorializes obligations (Ekeh 1974; Levi-Strauss 1969; Molm, Takahashi and Peterson 2000). This theory of substitution of contract for trust makes sense in arms-length negotiated contracts. It makes significantly less sense in transactions in which one side unilaterally imposes terms and conditions on the other as a condition of receipt of the benefit of the bargain. However, notwithstanding this, it is relatively clear that trust may be primed by signaling a vulnerable state of one exchange partner, in order to increase the likelihood that the other exchange partner will reciprocate by passing up an opportunity to exploit the entity that signaled the vulnerable state.

## 2.2. *Promise*

The theoretical and empirical literature on promise keeping in contracts suggests that framing a contract as a promise would yield greater adherence to terms (Atiyah 1979; Eigen 2012c; Feldman and Teichman 2011; Fried 1981; Wilkinson-Ryan and Baron 2009). This literature focuses on contract interpreted as a promise, not as a promise as an *alternative* frame to contract. Whether and to what extent promise operates independently from a contractual promise is not an easy question to answer theoretically or empirically. There are studies that suggest that individuals are averse to lying, and that even though lying from an economic perspective can be regarded as a relatively low-cost strategy, that the rate at which people lie to achieve desired ends is sometimes lower than expected (Lundquist et al. 2009). However not all of this research is consistent. Other studies suggest that promise-keeping may not be the

mechanism underwriting observed behaviors, but that it might be other things that map onto individuals' perceived payoff matrices (Charness and Dufwenberg 2010). The underlying theoretical question of what motivates individuals to keep promises is incredibly interesting, but beyond the scope of this article. Regardless of the mechanism, sufficient research suggests that naked promise-keeping (independent and divorced from payoffs associated with keeping one's promise) presents a viable frame against which terms and conditions should be tested.

### 2.3. *Threat*

Threats are not likely to be very effective in the long run at curbing unwanted behavior like online piracy. Threats may induce short-term responses, but undesired behaviors likely revert to the mean following the short-term period of threat saliency. This is because threats wear off over time, and for something as readily available, cheap, and convenient like the unauthorized use of movies and music, that threat is likely to wear off quickly and have little effect over time. Furthermore, prior experimental research shows the relative poor performance of framing a plea to continue to perform a contract as a legal threat relative to other pleas (Eigen 2012c). This does not mean that threats are not used. A notable example of this is the Recording Industry Association of America's attempt to threaten with the law to curb piracy of intellectual property (Bhattacharjee et al. 2006). This has not helped curb piracy in any meaningful, long-term way. In fact, some argue that the threats have exacerbated piracy rates [cite needed]. Because of their use and potential short-run effectiveness, positivistic threats (divorced from sanctions associated with failure to comply) present a good potential candidate as an alternative frame for curbing undesirable behaviors.

### 2.4. *Naked Request and Reciprocity*

Reciprocity is an important motivator for behavior (Axelrod and Hamilton 1981; Fehr, Gächter and Kirchsteiger 1997; Molm, Quist and Wiseley 1993). Reciprocity in contracts is often studied in repeat exchanges and in the context of relationships (Chou, Halevy and

Murningham 2012; Crawford 1990; Gil 2011; Kaufmann and Stern 1988; McGraw and Tetlock 2005). Interestingly, in the context of form contracts in the entertainment industry, artists have succeeded by simply requesting that individuals not behave in unwanted ways with respect to their intellectual property. For instance, comedian Louis C.K., sold a download of his comedy show directly on his website. He posted the following messages in tandem on his Twitter account:

“You can watch it from any country on earth. It’s an unprotected video that u can download and burn on a dvd or stream.

Please don’t torrent this video. I paid for the whole thing with my own stupid money.”<sup>6</sup>

The naked request combined with the lowering of the legal and physical protections on the intellectual property likely signaled reciprocity in a more salient way than had he legally and digitally attempted to protect the content from piracy. Reports indicate that this effort was successful because it made more than \$1 million in twelve days.<sup>7</sup> The media was presented without any digital rights management, so that it could easily be pirated, and was by some.<sup>8</sup> Creating the vulnerability to allow media to be duplicated establishes the opportunity for reciprocal exchange, and the naked request is a form of solicitation of the way in which the reciprocity is carried out.

There are other examples of recent attempts to similarly leverage reciprocity and a naked request not to behave in an undesirable way in the entertainment industry. For instance, Amanda Palmer of the band, “The Dresden Girls,” signaled reciprocity in order to reduce the

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<sup>6</sup> December 10, 2011 Twitter feed for @louisck.

<sup>7</sup> See Tom Cheredar, *Louis CK’s Digital Distribution Experiment Clears \$1M in 12 Days*, Dec. 22, 2011, VB Media <http://venturebeat.com/2011/12/22/louis-cks-special-1-million/>, accessed Oct 2, 2013.

<sup>8</sup> David Carr, *A Comic Distributes Himself*, N.Y. TIMES, Dec. 19, 2011, B1, New York edition. <http://www.nytimes.com/2011/12/19/business/media/louis-ck-plays-a-serious-joke-on-tv-the-media-equation.html?pagewanted=all>

incidence of people copying her music without paying for it in a recent self-described experiment of “crowd-funding” to distribute her band’s work.<sup>9</sup> In an interview about how this experiment, which raised a record \$1,192,793 from 24,883 individual contributors, she described her strategy as, “[she] didn’t make them [pay for the music], [she] asked them [to pay for it], and through the very act of asking them, [she] connected with them, and when you connect with them, people want to help you.” She identifies the challenge of asking for things instead of imposing terms and conditions perfectly: “asking makes you vulnerable.” As such, the experiment incorporated a naked request frame into the design as a viable alternative strategy to imposing terms and conditions on individuals.

### **3. Methodological Strategy**

The goal of the study was to try to replicate a common experience in a commonly occurring setting, and to observe a natural, behavioral measure of the rate at which subjects refrained from behaving in a way in which they wanted to behave as a function of random assignment to frames that could be compared to the standard terms and conditions frame. It was critical that subjects perceive the study as being conducted in a relatively anonymous, online setting. Individuals did not know who the researcher is, or what the researcher looks like, nor did the researcher know what the subjects look like or what their names were. The transaction studied is a single-shot transaction (not a repeated exchange situation). Subjects would have no reason to expect to do more polls or have any interaction with the poll administrators ever again. This design was intended to strip away explanations of motivations for performance based on relational commitment, interpersonal trust, and expectations for reciprocity over *repeated* interactions, as these explanations have been found to bear on contract

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<sup>9</sup><http://www.upworthy.com/an-8-foot-tall-woman-is-destroying-the-entire-music-industry?g=3>

performance in certain contexts (Malhotra and Murnighan 2002; Woolthuis, Hillebrand and Nootboom 2008). The design was also intended to replicate a quotidian setting experienced hundreds of thousands of times online every day involving transactions of low dollar amounts in which little is at stake for individuals, but the cumulative amount of what is at stake is significantly greater for the organizations with whom the individuals are contracting. An example of such a transaction is the licensing of music or media files for low dollar amounts (for instance, ninety-nine cents).

The Internet offers an optimal setting for this array of characteristics (augmented anonymity, lowered expectations of repeated exchange, and lower relational expectations). It also provides improved access to demographic categories thereby increasing generalizability through a wider dispersion of non-local sampling with a wider distribution of demographic characteristics (Krantz and Dalal 2000). Also, for what is being examined here, the web offers a greater likelihood of “ecological validity” (Reips 2002) because the behavior studied occurs naturally at one’s computer in one’s home or office. It would be extremely difficult and not desirable to emulate this experiment in a laboratory because subjects would not feel sufficiently at ease to attempt to take the poll more than once. Finally, the Internet offers a greater degree of voluntariness because there are lower costs associated with participating in one’s home or office where subjects are already located, so the cost of quitting is lower than if subjects participated in a lab. This too is a key advantage given an important measure is the likelihood that subjects quit performing. As Reips explains, “[b]ecause there are fewer constraints on the decisions to participate and to continue participation, the behaviors observed in Internet-based experiments can be generalized to a larger set of situations. ... Voluntariness refers to the voluntary motivational nature of a person’s participation, during the initial decision to

participate and during the course of the experiment session. It is influenced by external factors, for example, the setting, the experimenter, and institutional regulations (2002: 247).

There are, however, trade-offs associated with web-based experimentation, such as reduced control over participant solicitation (Skitka and Sargis 2006). To compensate for this, the experiment's programming included measures to reduce the likelihood of subjects tricking the program into thinking that they are new subjects after they have been cut off from the experiment. IP addresses were locked out after the fourth attempt to take the poll. The programming also noted subjects' geo-positioning information, browser, operating system, and other related information. The URL used for the experiment, "presidentsurvey.com," was designed to run on common operating systems and browsers, but not on tablets or smart phones. Each subject was assigned a unique URL parameter (for example: "45ade3441740925d0287aff1362c35a24ad06b5c6c6cd7270bb4909a486d270d7e72624248e5eb5071a7497b76c6725a18c4950072ccf78739c90d1e4b731664", which was used to identify unique subjects in the study. Using an online administration site, the researcher and three other people were able to watch the data come through in real time when the poll went "live," after being advertised. If suspicious hacking activity were detected, we shut the whole experiment down temporarily. All participants' activity and response data were carefully screened to include only instances in which no server errors or other events of questionable interpretation occurred.

The experiment ran over seven days right before the November 2012 presidential election.<sup>10</sup> Subjects were invited to participate in an online 30-second presidential poll for which

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<sup>10</sup> Data were collected on October 29, and 30, and November 1, 2, 4, 5, and 6.

they would receive a \$2 or \$1 Amazon code.<sup>11</sup> Potential subjects were informed that no sign up or email was required. Varied participant solicitation methods<sup>12</sup> yielded 907 participants, all of whom resided in the United States and were at least 18 years old.<sup>13</sup> Figure 1 is an example of one of the Facebook ads used to solicit participants. It is included as a demonstration of one of the key features in the communication of the study to participants—that unlike other online solicitations for participation in election surveys that were ubiquitous in the time leading up to the November presidential election, this one did not require subjects to provide their email or contact information. This is important, because other polls that did require email sign-up were thinly veiled attempts to get people’s email addresses. These polls were not so interested in subjects’ viewpoints, but instead, wanted their contact information so that the poll-administrators could send SPAM them later. The signal conveyed by the solicitation for this experiment is that this poll was interested *only* in subjects’ views on the election, and nothing more. That is why no email or contact information is required, but that is also why honest

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<sup>11</sup> The first two days the experiment ran, we used Amazon codes worth \$2.00 each. This yielded 568 of the 907 subjects. To curb costs and maximize the number of subjects, we switched to using \$1.00 Amazon codes for the duration of the experiment. This yielded an additional 339 subjects. Subjects who received a \$2.00 Amazon code were less likely to take the survey again than subjects who received a \$1.00 code. 77% of the \$2.00 subjects behaved “honestly” as compared to 70% of the \$1.00 code recipients. This difference is statistically significant at  $p = .03$ . However, there is no statistically significant difference in the distribution of subjects across conditions by payout amount, so this difference in behavior by payout amount is unlikely to impact the reported results in a meaningful way.

<sup>12</sup> Subjects were recruited to participate in the experiment via three methods: (1) a solicitation on Amazon’s Mechanical Turk, (2) Ads placed on Craigslist, and, (3) direct advertisements placed on facebook.com.

<sup>13</sup> 211 subjects were dropped from the data for various reasons that made the interpretation of their behavior problematic. For instance, some participants entered the experiment, were randomly assigned to a frame, began the survey, but did not complete it—perhaps their internet connection was lost, or perhaps they elected to discontinue participation. Five additional subjects were dropped from the data, even though they completed the study, because they self-reported being under 18 years old (in spite of the repeated notices that one must be at least 18 to participate). Including these five subjects does not affect the reported results.

responses to the questions and taking the poll only once is assumedly valued highly by the poll-administrators.

[FIGURE 1]

Of the 907 subjects, 514 (57%) were male. Subjects reported their age by selecting a three-year age bracket from a list in a drop-down menu ranging from 18-21 to 74-77. "78+" is the highest category. Table 1 reports the distribution of subjects' ages. The mean reported age was 34-37 years old. The age bracket with the highest percentage of subjects reporting was 26-29 (15.55%). In terms of geographic dispersion, of the 907 subjects, 522 unique geo-location identifiers based on cities are represented.

[TABLE 1]

All subjects were first shown an introduction page that stated the three criteria for eligibility to participate in the survey (over 18 years of age, eligible to vote in the upcoming presidential election, and a current resident of the United States). This page also explains that the survey consists of six quick questions about the presidential election that would take "less than a minute" to complete. Subjects were also informed that after they answered the questions, they would "immediately receive a \$1.00 / \$2.00 code towards any purchase at Amazon.com." In bold, and red text (the remaining text is in black), the introduction page notes, "For privacy reasons, you will **not** be asked for any personal information like your name or email address." Directly underneath this red text, is a button labeled "Continue." When subjects clicked this button, they were randomly assigned to one of the six experimental frames described above. An additional text box would then appear below the red text. The text box for the "control" frame merely stated, "Please press the button below to begin." Underneath that text is a button

labeled "Continue." Next, are descriptions of the text in the last text box for each of the remaining frames: naked request, promise, fraud, trust, and terms and conditions.

In the "naked request" frame, the text box stated,

"THERE'S NOTHING TECHNICALLY STOPPING YOU FROM TAKING THE SURVEY MORE THAN ONCE AND GETTING MORE THAN ONE \$1.00 / \$2.00 CODE.

SO, PLEASE DO NOT TAKE THE SURVEY MORE THAN ONCE."

For consistency's sake in *all* frames, a "Continue" button appeared directly underneath this text. The "promise" frame's text box reiterated the part tipping subjects off about nothing technically stopping them from taking the survey more than once, and followed with, "SO, PLEASE CLICK THE BOX BELOW:" Below this, there is a box that subjects clicked, next to the words, "I PROMISE NOT TO TAKE THE SURVEY MORE THAN ONCE." Below this is the "Continue" button. The fourth frame, "fraud," reiterated the tip-off language, and admonished subjects that, "TAKING THE SURVEY MORE THAN ONCE IS FRAUD. DO NOT COMMIT FRAUD." Below this appeared the "Continue" button. The fifth frame, "trust," tipped subjects off, and then informed them that, "WE TRUST YOU NOT TO TAKE THE SURVEY MORE THAN ONCE," with the "Continue" button underneath that. Lastly, the sixth, "T&C" frame, tipped subjects off using the same language, below which appeared a scrollable text box containing a set of "Terms & Conditions, Participation in Survey Regarding Upcoming Presidential Election." Below this, is a box that subjects check, next to the words, "I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS AND WILL NOT TAKE THE SURVEY MORE THAN ONCE." Underneath this is the "Continue" button. Figure 2 is a screen capture of this frame.

[ FIGURE 2 ]

All subjects were then directed to the poll. This consisted of a single webpage with six very simple questions and drop-down menu choices for each. The survey asked for whom they are planning to vote in the upcoming presidential election, whether they think it is a good idea to require voters to show valid identification before casting votes, in which state they planned to vote, their gender, age, and their political orientation using a standard conservative – liberal scale. Subjects clicked another “Continue” button, which brought them to a page that showed them how to get the \$1/\$2 credit on Amazon.com. One text box displayed the unique 16-digit code that they needed to copy or write down, and a second text box showed a screen shot of where they would apply it on Amazon.com. Below this, in red bold text was the following:

- **COPY THIS CODE NOW BECAUSE A NEW CODE IS GENERATED EACH TIME THE SURVEY IS COMPLETED AND THIS PAGE IS VISITED.**
- **BECAUSE WE DO NOT HAVE YOUR NAME OR EMAIL ADDRESS, IF YOU LOSE THIS CODE, WE CANNOT SEND IT TO YOU.**

There were several ways that subjects could go back to take the survey again. They could refresh their browser, click the link at the top of the page, which is displayed prominently as a clickable hyperlink with the heading, “Presidential Election Survey,” or they could type the generic form of the experiment’s URL into a new browser window: *www.presidentialsurvey.com*. Participants could go through the survey a total of four times. That is, they could take the survey three times more than they are supposed to take it, after which, they received a notification that the survey was closed. The operative behavioral measure was whether the proportion of subjects who took the survey more than once in the T&C frame was different from the proportions in the alternative frames.

## 4. Results

### 4.1 *Are Terms & Conditions Effective at Preventing Undesirable Behaviors?*

There are at least two ways to measure whether and how much of the undesirable behavior subjects refrained from taking in the experimental setting: (1) a dichotomous measure of whether subjects took the survey more than one time, and (2) an ordinal measure of the number of times subjects took the survey, ranging from 1-4.

#### 4.1.1. Dichotomous Measure of Behavior: Taking the Survey Once versus More than Once

Whether subjects refrained from taking the poll more than one time is perhaps the most operative measure because by analogy, if individuals copy and upload digital content they purchase online one time, this single instance of sharing, could translate into thousands of dollars lost. Additional non-compliance (dishonesty) could be construed as an artifact of unobservable measures. Across all frames, about three quarters of the subjects took the survey one time and then voluntarily stopped. In the control frame, in which subjects were not tipped off that they could take the poll again and get more money, 76% were honest. These rates accord other research that broadly addresses the question of how honestly people behave when they are presented with opportunities to cheat (Bryan, Adams and Monin 2012; Gino et al. 2011; Mazar, Amir and Ariely 2008).

Only 65% of individuals randomly assigned to the T&C frame refrained from taking the survey more than once (std dev = .48; n = 156). This was the lowest rate across all conditions. The greatest percentage of subjects refraining from taking the survey more than once was the “trust” frame, with 80% (std dev = .40; n = 150). Table 2 depicts the distribution of the percentages of subjects who took the survey only one time, by frame.

[ TABLE 2 ]

Table 3 shows the results of tests on the equality of proportions across the six frames. The results of the main test of interest (T&C vs. other frames) are reported in the bottom row of Table 3. The other proportion tests are included in the table in the interest of reporting all findings. As noted above, the T&C frame induced the lowest percentage of single survey taking (65%). This was not statistically significantly different from the fraud frame (72% single survey takers;  $p = .16$ ), and only statistically significantly different from the naked request (74.5%) at the 90% level ( $p = .06$ ). However, the control frame (76%), the promise frame (77%), and the trust frame (80%) all induced statistically significantly greater proportions of single instance survey taking.

[ TABLE 3 ]

#### 4.1.2. Ordinal Measure of Behavior: Number of Times Subjects Took the Survey

Across all frames, 74.1% of subjects ( $n = 672$ ) took the survey only one time and then stopped. 11% ( $n = 100$ ) took the poll twice (one more time than they were supposed to take it), 2.3% took it three times ( $n = 21$ ), and 12.6% (114) took it four times. Table 4 depicts the ordinal distribution of the number of times subjects took the poll ranging from 1-4, and the corresponding row-percentages for each frame. Some nuanced differences are discernable when the data are broken down this way. First, it seems that subjects randomly assigned to the “trust” frame were the least like to take the survey *twice* and then stop. A mere 5% of participants assigned to the “trust” frame took the survey twice and then stopped. Put another way, 27% of the subjects who took the survey more than once in the “trust” frame “cheated” only one time. This number is statistically significantly *less* than the percentage of one-time survey takers randomly assigned to the T&C frame (17%, or 49% of the T&C repeat survey takers;  $p = .04$ ), and just barely statistically insignificantly different from the fraud frame (14%,

or 49% of the repeat survey takers;  $p = .06$ ).<sup>14</sup> The T&C frame (surprisingly) elicited the *highest* percentage of two-time only survey taking (17% of subjects assigned to the T&C frame, or 49% of T&C recidivist poll-takers). It seems that subjects who rejected the plea of trust by the researchers were more likely than all other conditions to take the survey more than once if they decided to do so. In fact, the trust condition yielded the *highest* percentage of subjects who took the survey the maximum number of times as a percentage of those assigned to that condition who elected to take the survey at least twice (67%). This rate is statistically significantly greater than the percentage of T&C subjects who took the survey the maximum number of times (as a function of all T&C recidivist poll-takers: 42%;  $p = .03$ ), and significantly greater than the fraud percentage of duplicate poll takers (42%;  $p = .04$ ). This result may be surprising. However, research on reduction of reactance theory suggests otherwise (Brehm and Brehm 1981). It could be the case that subjects who are determined to take the survey more than once feel worse about betraying trust, so they take the survey the most possible times to monetarily make their betrayal worth it to them. Obviously, this is speculation, and not directly discernable from the results described.

[ TABLE 4 ]

Table 5 presents the  $p$  values of chi-squared tests for the ordinal distributions of the frames. Again, the main test of interest is the T&C frame versus the other frames (results reported in the bottom row). The other tests are included again, in the interest of comprehensive reporting. The distribution of the number of times subjects took the survey in the T&C frame is statistically significantly different all other frames, except the fraud frame ( $p = .16$ ).

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<sup>14</sup> The other percentages of one-time “cheating” of the total number of cheaters for the other frames are as follows: control: 43%, naked request: 36%, promise: 45%, and overall, 43%.

[ TABLE 5 ]

The results suggest that the main driver of the ordinal variation observed is in the rates at which subjects took the survey twice (as compared to all other possible numbers of times). Simple proportionality tests confirm this.<sup>15</sup> While the proportion of subjects who took the survey two times does statistically significantly vary by frame (except for comparing the T&C frame with the fraud frame), at least at the 90% level, the same cannot be said when comparing the percentage of three-times survey taking, or four-times survey taking.

The behavioral findings presented suggest that the standard and most common way of trying to curb unwanted behaviors (Terms & Conditions) is statistically less likely to achieve the desired results than the other ways tested, with the exception of the fraud frame ( $p = .16$ ), and possibly the naked request frame, which only improved the honesty of subjects at a marginally statistical level ( $p = .06$ ). In the next part of the paper, the focus is shifted to evaluating which frame is the optimal one to use to curb unwanted behaviors instead of terms and conditions.

4.2. *Is Promise or Trust better at Reducing Undesirable Behavior?*

Prior research on contracting behavior suggests that framing a contractual obligation as a promise made, and “living up to one’s word” is a powerful way of encouraging individuals to comply with a contract they have signed that purports to obligate them to perform an undesirable task (Eigen 2012c). In fact, there is a fair amount of empirical support for framing an obligation as a promise as motivating individuals to comply with the promise made (Cheney,

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<sup>15</sup> P-values for the various proportionality tests are as follows: T&C vs. control:  $p = .08$ ; T&C vs. naked request:  $p = .04$ ; T&C vs. promise:  $p = .08$ ; T&C vs. fraud:  $p = .4$ ; T&C vs. trust;  $p = .001$ ; T&C vs. all frames:  $p = .03$ .

Harford and Solomon 1972; Wilkinson-Ryan and Baron 2009). Similarly, empirical research suggests that signaling trust and a reciprocal obligation flowing therefrom, will be an effective means of reducing dishonest behavior [cite needed].

77.4% of subjects assigned to the promise frame, and 80% of the subjects assigned to the trust frame took the survey no more than one time. As reported above, each of these is statistically significantly better than the T&C frame. However, it should also be noted that neither the promise frame nor the trust frame is statistically significantly better than the naked request frame, the fraud frame, or the control frame. When the promise and trust frames are combined, this yields 296 subjects, 79% of whom took the survey only one time and then stopped. This combined rate is statistically significantly different from all of the other frames combined ( $p = .03$ ). However, when the T&C frame is excluded, and the combined trust/promise group is compared to the aggregate of the other frames (control, naked request, and fraud;  $n = 455$ , 74.3% single survey rate), the difference is not statistically significant.

While there is some evidence to suggest that both promise and trust are better than terms and conditions at preventing the unwanted behavior of taking the survey more than once, it is not clear that these frames are any better than the other means of preventing the unwanted behavior measured in this study. This could be the case for several reasons, but it is impossible to rule out a simple design related limitation of this study—that the experiment was marginally underpowered, and that a greater number of subjects would have further stretched out the distributions across the frames. However, it is equally impossible to rule out the possibility that a naked request (that perhaps signals reciprocity) works as well as promise or trust at keeping people from behaving in the undesirable way measured in this study.

#### 4.3. *Do subject characteristics impact rates of multiple survey taking?*

Subjects self reported their age, gender, in which state they planned to vote, political orientation, their choice of presidential candidate, and whether they thought it is a good idea to require voters to show valid identification before casting votes. Some subjects reported these things more than once. I rely only on the first instance of subjects' reporting these measures, because this is the only way to compare subjects who took the survey more than once to subjects who took it only one time. First, as a preliminary matter, I describe some descriptive elements of subject characteristics. Second, the interaction effects are reported with frame assignment.

##### 4.3.1. Descriptive Elements of Subject Characteristics

479 subjects (53%) reported that they intended to vote for Barack Obama, and 294 (32%) reported that they were planning to vote for Mitt Romney. An additional 66 subjects (7%) reported that they would vote for Gary Johnson (the Libertarian Party candidate), 30 (3%) for Jill Stein (the Green Party candidate), 35 (4%) undecided, and 3 (.33%) for someone else.<sup>16</sup> Perhaps it is a little unsatisfying to everyone, but there is no statistically significant difference in the honesty rates of those who reported their intention to vote for Obama versus those who reported their intention to vote for Romney ( $p = .53$ ). The percentage of subjects who took the survey more than once did not vary statistically significantly by their reported political identification as conservative or liberal (along a standard ordinal scale) either. It does not matter if this is measured ordinally or if the data are compressed and dichotomized into

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<sup>16</sup> Obama won 51.01% of the popular vote. Romney won 47.16%, Johnson received .99%, Stein received .36%, and "other candidates" received .48%. The poll used for this experiment performed about the same at predicting election results as some major reported polls. As Nate Silver reported in his popular blog, "Fivethirtyeight" (<http://tinyurl.com/k6mfuah>), the most commonly reported poll, Gallup, had an average error rate was 7.2%. The average error rate of the instant poll was 6.8%. One of the best performing polls was Google's Consumer Surveys (1.6% average error rate), which used online polling.

“conservative” and “liberal.” Using the latter measure and a standard chi-squared test, the difference is not statistically significant ( $p = .67$ ). Subjects’ reported gender was similarly not statistically significantly associated with taking the survey more than once ( $p = .57$ ).

Two measures that were statistically significantly associated with taking the survey more than once were subjects’ age, and their reported agreement with the need to require voters to present valid identification before voting in the election. Older subjects tended to be less likely to take the survey more than once. Those who agreed that voters should be required to show valid identification before voting in elections were more likely to take the survey more than once. Both effects are robust and highly statistically significant. With age, a one-bracket increase in reported age (the brackets are ordinal, in 3-year intervals), is associated with a 12% increase in the odds of taking the survey only one time ( $p < .001$ ).

Similarly, using a dichotomized measure of the voter-identification question, the belief that voter identification is required is associated with a 60% decrease in the odds of taking the survey only once. This effect holds regardless of whether one uses the ordinal or dichotomized measure of reported political ideology. This association makes sense. People who think others are likely to try to vote as someone else, are probably more likely to believe that cheating is normal, and normatively acceptable. That is, they are more likely to believe that “everyone cheats.” They are therefore more at ease with taking the survey more than once and being paid for their efforts multiple times (Bryan, Adams and Monin 2012; Mazar, Amir and Ariely 2008).

#### 4.3.2. Interaction Effects of Subject characteristics and Frame Assignment

Subjects randomly assigned to the fraud frame who did not agree that requiring voter identification is a good idea had the highest honesty rate of any sub-group in the study (95%;  $n = 21$ ). The other honesty rates that were over ninety percent for those who also thought that requiring voter identification was not necessary was the trust condition (92%;  $n = 25$ ) and the

control condition (94%;  $n = 16$ ). 88% of the naked request frame subjects disagreed with requiring voter identification ( $n = 18$ ), and 76% of the promise frame subjects ( $n = 21$ ) and 73% of the T&C frame subjects ( $n = 19$ ) took the survey only once. Single survey taking rates of subjects who disagreed with the need for voter ID laws were significantly lower. The largest gap between the single survey-taking rate of those who disagreed with the policy of requiring voter ID and those who agreed was in the fraud frame. Only 68% of participants randomly assigned to the fraud frame ( $n = 114$ ) stopped taking the survey after one time who reported that they thought it was necessary to require voter ID before voting in elections. So, individuals who thought it was necessary to prevent other people from cheating in a national election (by committing voter fraud), and were prompted with a threat not to commit fraud were among the most “dishonest” subgroup of subjects. In fact, the gap of 27%—from 95% single survey-taking rate among those in the fraud frame who did not think voter ID was necessary to 68% among those in the fraud frame who did think voter ID was necessary—is the largest gap between subgroups observed in this experiment.<sup>17</sup>

Lastly, it is worth mentioning the distribution of survey taking rates by age bracket across the frames. First, only 35% of the 20 subjects who reported being 18-21, who were randomly assigned to the T&C frame, took the survey only once and then stopped. Even with the small number of subjects, this proportion is statistically significantly different from the 18-21 year old honesty rate for the fraud frame ( $n = 22$ ; 86%;  $p = .001$ ), the control frame ( $n = 13$ ; 77%;  $p = .02$ ), the promise frame ( $n = 16$ ; 75%;  $p = .02$ ), and marginally insignificantly different from the naked request frame ( $n = 21$ ; 62%;  $p = .08$ ), but not statistically significantly different from the trust frame ( $n = 15$ ; 60%;  $p = .14$ ). Second, 38-41 year olds appear slightly more likely

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<sup>17</sup> For comparison, the next largest gap in honesty rates is 20% in the control frame, then 16% in the naked request frame, then 14% in the trust frame, 9% in the terms and conditions frame. The promise frame has a -1% gap.

to take the survey more than once than other age brackets. Indeed, the lowest honesty rate is 22%, for the nine subjects ages 38-41 randomly assigned to the fraud frame. Third, as discussed above, older subjects, especially those over 42, are significantly less likely to take the survey more than once regardless of the frame.

## 5. Results

The findings suggest that terms and conditions may be a suboptimal means of stymying undesirable behaviors like taking a survey more than once or the comparable real world behavior of unauthorized use or distribution of music or other media. Only 65% of subjects randomly assigned to the terms and conditions frame took the survey once and then stopped. Compared to the higher rates of other frames—especially the promise frame (77%), and the trust frame (80%)—the findings suggest that the behavioral justification for using terms and conditions deserves reconsideration. It is less clear *which* of the alternatives to terms and conditions should be used. Some evidence from this study suggests that further research is necessary to understand what variation exists across contexts that makes the frame appropriate to the quality of the unwanted behavior being curbed. In the instant study, one finding in particular makes this question salient. 27% of the trust frame multiple survey-takers were one-time recidivists, as compared to 49% of the T&C multiple survey-takers. This may be an odd result—why would subjects who reject the trust plea behave less compliantly than those who reject the terms and conditions means of attempting to restrict behavior? This research does not offer an answer to this question. One may speculate that this is a function of reactance theory (Brehm 1966) associated with the rejection of the plea. The more negatively one feels as a result of the decision to reject the frame, the greater the subjects' need to self-compensate in

the way of taking the survey as many times as possible. However, the instant study does not address this suggested mechanism.

While the promise frame generated a higher compliance rate than the T&C frame – 77.4%, as did the trust frame (80%), it is not clear from the results of this study that promise or trust worked better than other options for preventing the unwanted behavior—specifically, the naked request frame. This could be a function of the experiment being underpowered. Further empirical work is necessary to test whether this is the case. It could also be that a naked request not to take the survey more than once is inherently interpretable as the researchers placing their trust in the subjects not to take the survey more than once. There is less of an explanation for the relative success of the fraud frame.

It also seems that political orientation, choice of president, and gender are measures not associated with compliant behavior. However, age and disagreement with the need for voter identification laws are associated with greater compliance. Both of these associations present key bases for future research that would directly impact the form-contracting arena. In terms of the voter identification question, this question could be regarded as a proxy for measuring the extent to which subjects believe that others cheat, or that cheating of a more serious kind than is being measured is socially acceptable. This may offer a useful measure for future research because it is significantly easier to measure the degree to which people think that others engage in the kind of dishonest behavior of interest to researchers. It also harmonizes with existing research that suggests that people are more likely to behave dishonestly when they perceive that behavior as being socially acceptable (McCabe and Trevino 1993). In the context of downloading media illegally, this finding could not be more salient.

Lastly, there appears to be some preliminary evidence to support the existence of cohort effects in the results of this study. How much faith one puts in the specific age related findings

notwithstanding, it is worth noting that subjects respond to the frames differently by age cohorts. Terms and conditions seemed to motivate subjects over 37 differently from subjects under 30, especially those 18-21. Further research would help illuminate whether and to what extent the preliminary findings are replicable by age cohort. This could be extremely important as our population ages, and more individuals become normalized and perhaps desensitized to terms and conditions. Contracts are social artifacts (Suchman 2003). They likely carry different meanings for individuals who have more experience with negotiated instruments than those who are more accustomed to non-negotiated instruments as the normal way of governing exchanges.

## **6. Limitations**

The study has some clear limitations. First, one could argue that the behavior of taking a presidential poll more than once is less generalizable to stealing music than suggested. This stems from a natural limitation of the experimental design employed. Ideally, one would observe individuals stealing media, but it is significantly more challenging to measure this in a cognizable, cost effective way, and in a manner that would not run up against other design defects. So, more broadly stated, how one should translate these findings into contract non-performance generally is open to speculation. The advantages gained by constructing an online laboratory to test individuals' real behavior with respect to a ubiquitous form of attempting to regulate behavior in online exchange should be weighed against the limitations endemic to experimental design generally, and the limitations specific to the constructs and setting used.

Second, there are potential selection bias concerns about the possible subset of individuals who self-select into a survey that advertises as not requiring the entering of personal identifying information like name or email address. This pool of subjects may be predisposed to

prefer frames with no terms and conditions. This particular subset of the population could be more prone to regard terms and conditions as a place that the poll-administers could sneak in nefarious privacy violations. Such variation in the perceptions of the contents of form-contracts has been empirically suggested in other contexts (Eigen 2008). Other research suggests that this is not a far-fetched possibility (Eigen 2008; Eigen 2012b). In fact, it may be one of the reasons why subjects randomly assigned to the T&C frame were more likely to feel *justified* in taking the survey more than once.

Third, this experiment holds the relationship of the contracting parties constant. The hope was to appear to be a non-governmental entity interested in individuals' political views and how they would vote in the presidential election. The experiment's advertising, URL (presidentsurvey.com), and the communications to subjects probably lent the impression that they were interacting with a company or at the very least, a small organization as opposed to an individual.<sup>18</sup> Therefore, caution should be taken in extrapolating these findings to entertainment industry companies, many of whom have pre-existing reputations that could yield different kinds of behaviors than those observed in this experiment, where no pre-existing "brand-name" based reputation existed. It would be great to perform this experiment or a similar one using a brand name in the entertainment industry (for instance, Twentieth Century Fox, or Sony) to augment the external validity of the findings. However, these findings are still useful as a starting point in observing differential individual behaviors in the absence of pre-

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<sup>18</sup> In the T&C frame, the scroll window shows the heading and first three lines of text of the terms and conditions. The following words are visible in the scroll window without scrolling, "These 'Terms & Conditions' govern the contractual relationship between the Researchers at Northwestern University ('Researchers') and..." So, it is possible that subjects in the T&C frame might have noticed this, and therefore might be more likely to think that the people running the poll are researchers at Northwestern University (which is true). However, if this were true, it would only strengthen the findings, because subjects would likely be less inclined to feel justified avoiding an obligation with researchers than they would to feel justified avoiding an obligation with a large company.

existing reputations, relationships, and status of the exchange entity as an individual versus a large organization.

Lastly, subjects could have interpreted any or all of the frames to mean something different from the labels ascribed. This is another way of noting that this experiment does not test underlying mechanisms associated with the frames. For instance, maybe subjects thought that they were promise bound not to take the survey more than once in response to the naked request frame, or legally threatened in response to the T&C frame. While the wording of the frames was grounded in existing research, these possibilities may not be ruled out. This research does not purport to vet subjects' psychological perceptions of the frames or their legal interpretations of the frames. To the extent that effects are discernable in differentiating subjects' objective behavior in response to the frames, mislabeling them does not detract from the reported findings.

## **7. Conclusion**

This paper contributes preliminary evidence of the failure of terms and conditions to do what they are supposed to do in one context. This research raises doubts that contracts like EULAs are the optimal way of preventing individuals from the unauthorized duplication and distribution of intellectual property like digital media. Obviously, this is only one component of the empirical question of whether terms and conditions reduce overall costs associated with piracy. It is not clear from this research whether and to what extent the other moving parts of the cost model would change if entertainment industry companies employed different frames. This study does not explore what happens if two frames are used simultaneously either. For instance, could Hollywood continue to use EULAs for purposes unrelated to deterring individuals from unauthorized use of media and related intellectual property, but use promise

or trust as a frame to reduce that undesirable behavior simultaneously? While this study does not address this question empirically, it seems unlikely that this strategy would be effective. It is likely that the presence of a EULA crowds out the framing effects observed in the trust and promise frames. Those frames, as well as the naked request frame, seem functionally dependent on the opening up of vulnerability to signal reciprocal behavior demonstrating an equivalent non-exploitation of a vulnerability. Without the parallel available vulnerability (the non-existence of DRM or EULAs), it seems unlikely that a promise frame, trust frame, or naked request frame would work as evidenced herein. As Amanda Palmer noted, “asking makes you vulnerable.” Without the vulnerability, I doubt the other frames would work as well. In short, observed effects in this study raise questions about underlying mechanisms, and the exportability of the effects to alternative contexts. The nascent evidence presented of these effects reveals the importance of continuing to study individuals’ contracting behavior, and their experiences with and interpretations of contract, particularly in the relatively understudied universe of online exchanges.

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**TABLES**

TABLE 1  
AGE DISTRIBUTION OF PARTICIPANTS

Age	N	Percent
18-21	107	11.8
22-25	98	10.8
26-29	141	15.55
30-33	114	12.57
34-37	106	11.69
38-41	88	9.7
42-45	76	8.38
46-49	43	4.74
50-53	28	3.09
54-57	34	3.75
58-61	26	2.87
62-65	22	2.43
66-69	15	1.65
70-73	5	0.55
74-77	1	0.11
78+	3	0.33
Total	907	100

TABLE 2  
PERCENTAGE OF SINGLE SURVEY TAKERS BY FRAME  
% Subj. took the  
survey only 1

Frame	time	Std. Dev.	n
Control	75.97%	0.43	154
Naked Request	74.51%	0.44	153
Promise	77.40%	0.42	146
Fraud	72.30%	0.45	148
Trust	80.00%	0.40	150
T&C	64.74%	0.48	156
Total	74.09%	0.44	907

TABLE 3  
P-VALUES OF TWO-SAMPLE TESTS OF PROPORTIONS

	Control	Naked Request	Promise	Fraud	Trust
Control					
Naked Request	0.77				
Promise	0.77	0.56			
Fraud	0.47	0.66	0.31		
Trust	0.40	0.25	0.58	0.12	
T&C	<b>0.03</b>	<b>0.06</b>	<b>0.02</b>	0.16	<b>0.003</b>

TABLE 4  
ORDINAL DISTRIBUTIONS OF SURVEY TAKING ACROSS FRAMES

	# of times poll taken (n / %)				N
	1	2	3	4	
Control	117 76%	16 10%	4 3%	17 11%	154
Naked Request	114 75%	14 9%	3 2%	22 14%	153
Promise	113 77%	15 10%	3 2%	15 10%	146
Fraud	107 72%	20 14%	4 3%	17 11%	148
Trust	120 80%	8 5%	2 1%	20 13%	150
T&C	101 65%	27 17%	5 3%	23 15%	156
Total	672 74%	100 11%	21 2%	114 13%	907

TABLE 5  
 CHI-SQUARE P-VALUES OF ORDINAL DISTRIBUTIONS OF SURVEY TAKING ACROSS  
 FRAMES

	Control	Naked Request	Promise	Fraud	Trust
Control					
Naked Request	0.61				
Promise	0.85	0.34			
Fraud	0.63	0.26	0.558		
Trust	<b>0.02</b>	0.14	<b>0.041</b>	<b>0.00</b>	
T&C	<b>0.03</b>	<b>0.00</b>	<b>0.001</b>	0.16	<b>0.00</b>

**FIGURES**

FIGURE 1  
EXAMPLE OF FACEBOOK PARTICIPANT SOLICITATION

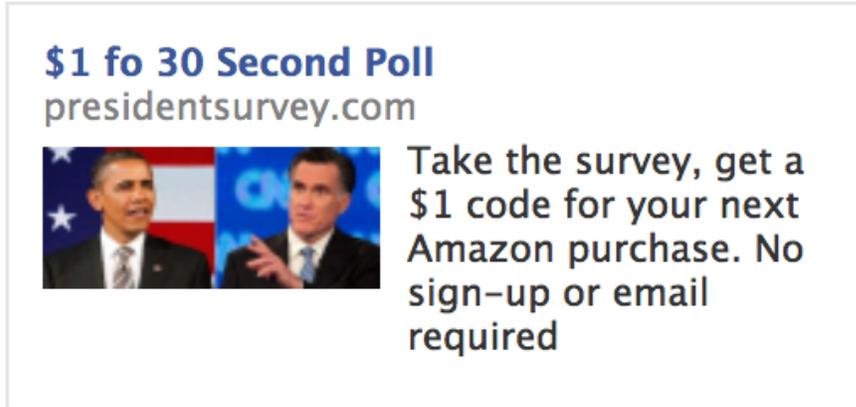


FIGURE 2  
SCREEN CAPTURE OF TERMS & CONDITIONS FRAME

## Presidential Election Survey

To participate in this survey, you need to be:

- Over 18,
- Eligible to vote in the upcoming presidential election, and,
- A current resident of the United States.

How it works:

1. Answer 6 quick questions (less than a minute) about the presidential election.
2. Immediately receive a \$1.00 code towards any purchase at Amazon.com.

**For privacy reasons, you will not be asked for any personal information like your name or email address.**

THERE'S NOTHING TECHNICALLY STOPPING YOU FROM TAKING THE SURVEY MORE THAN ONCE AND GETTING MORE THAN ONE \$1.00 CODE.

### TERMS AND CONDITIONS PARTICIPATION IN SURVEY REGARDING UPCOMING PRESIDENTIAL ELECTION

#### Introduction and Purpose of the Study

These "Terms and Conditions" govern the contractual relationship between the Researchers at Northwestern University ("Researchers") and you ("Participant"). This study asks Participants about their voting

- I have read and agree to the Terms and Conditions and will not to take the survey more than once.

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