## Does Disclosure Matter?

Comment

by

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Contract disclosure is a very important topic. There are at least three streams of literature addressing contract disclosure: disclosure of conflict of interest with third parties, disclosure of contract terms, and disclosure of product quality. Marotta-Wurgler (2012) focuses on disclosure of contract terms. I first summarize the contributions of the paper and then discuss a few instances where I might characterize the inferences differently.

The paper asks two questions. Do people read contract terms? The analysis blurs this question with a slightly different one: Are consumers more likely to access EULAs (end-user license agreements) that are more prominently displayed? The second question is: Do people avoid purchase contracts with unfavorable terms?

The motivation for the paper is twofold. "For disclosure to be effective, it must increase readership of contracts and conditional on reading, affect decisions" (Marotta-Wurgler, 2012, abstract). I suggest that the empirical analysis falls short in addressing these motivations. The empirical analysis is partial equilibrium. A disclosure regime would mandate disclosure across all products, whereas the analysis examines the correlation of readership (purchases) with disclosure endogenously chosen by firms. Even in examining this correlation, the relationship between disclosure and readership (purchases) needs to be ceteris paribus. But this is unlikely, since firms simultaneously choose product quality, contract terms, and degree of disclosure.

The method employed in the paper is to use the clickstream of 47,399 households communicating with 81 Internet retailers. The first finding is that "the prominence of disclosure of a software license agreement has little effect on readership" (Marotta-Wurgler, 2012, abstract). Only one in two hundred interested shoppers reads. Increasing disclosure increases readership by "epsilon." The main findings can be found in Table 3, Panel B in the first two rows. Disclosure of the EULA is listed in the first column. An entry 0.5 indicates that the contract is displayed near the button for placing the purchase. An entry 1 indicates that the consumer arrives at the contract terms after making one click. The fourth column shows that the readership increases fivefold, although the overall readership is still very low, at 0.5%.

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The second finding is that those who read are equally likely to purchase, regardless of the one-sidedness of the contract. The paper states that Table 5 shows that a one-point increase in buyer friendliness is associated with a seven-percentage-point lower probability of purchase. This relationship is robust with and without controls.

I suggest an alternative explanation for these results: Contracts with more one-sidedness offer higher-quality products. Producers trade off between product quality and pro-buyer terms on the production frontier. Pro-buyer terms are expensive to provide, as are high-quality products. Indeed, in a recent article in the *NYU Law Review* (Chari, 2010), it is shown that more highly rated products come bundled with more pro-seller terms. Therefore it is natural for consumers to be aware of this and not bother reading the contract terms in equilibrium. On the off-equilibrium path, firms with lower-quality products offer pro-seller terms, and consumers respond to the threat of reading by exiting.

This explains both why those who read are equally likely to purchase and why few consumers read in equilibrium. Therefore, in contrast to the interpretation that disclosure does not matter, mandated disclosure actually can matter if it is exogenously imposed across the industry. Indeed, the paper cites literature finding that disclosure of fat content and restaurant quality led to shifts in consumer demand. But the data will not show that disclosure matters to consumer purchases if disclosure is endogenously chosen by firms.

The paper does attempt to examine a more exogenous relationship between disclosure and consumer reading and purchases. First, however, why not just show whether the degree of disclosure is uncorrelated with observed characteristics? The paper uses product controls such as dummies for whether the product is for the general public or businesses, whether it is offered on a subscription basis, and the natural log of the median price of all of the company's products. Other controls include the number of seconds spent on the EULA page and the total number of pages accessed during the company visit. Company controls include the natural log of revenue and company age. Shopper controls include the logs of household income and head of household's age and a dummy for head of household's gender. To the extent that these are believed to be exogenous to the degree of disclosure and unaffected by it, one is easily able to examine whether the degree of disclosure is effectively random.

Second, the paper could attempt to control for product quality. None of the aforementioned controls are good proxies for product quality, but it would be interesting to know what happens if you control for product price. The median price of all company products is not really a product control, but rather a company control. In any event, the data is available for this examination.

Third, employing these controls may be overcontrolling, since the number of seconds spent on the EULA page, the total page hits, and the company revenue are endogenous to consumer choices. The author has thus put consumer choice on both the right-hand and the left-hand side of the equation while attempting to measure the treatment effect of degree of disclosure.

Fourth, who are these households who are willing to be tracked? And what, specifically, are the Internet products being purchased? Should we consider a representative purchase among the population such as the paper examines, or a representative purchase in the economy weighted by product price (since one could argue that market competition in heavily trafficked products could lead to different outcomes from that in other products)? For example, more market competition could lead to equilibrium nonreading as mentioned in the theory above, while less market competition could lead to off-equilibrium reading.

A regression corresponding to Table 3 would help us see the marginal effect in comparison with the baseline. As a correlational study, exhibiting the coefficients on all the controls would aid in the interpretation of the marginal effect of interest. What does "epsilon" mean: relative to the baseline, or to the influence of other product, company, and household characteristics? If the question is "does disclosure matter?" (for the likelihood of reading contract terms), then we see it increases the likelihood of reading by fivefold. If the question is "do people read anything?" then the baseline is low. But this highlights how the paper blurs the two questions and might not actually be about whether disclosure matters, but be about whether people read contract terms, a topic previously examined by the author and perhaps in the legal literature, which has cited the lack of reading of real estate contracts and insurance contracts. For example, Mueller (1970) finds that people do not read residential leases. On the other hand, Brandt and Day (1973) and Davis (1977) find that people do read contracts when the language is simplified.

A simple field experiment is the ideal way to measure whether the degree of disclosure matters. The analysis already conducted in this paper could be paired with a study that offers the same product but randomizes the degree of disclosure. Shortly after making the purchase, consumers could be asked several reading comprehension questions related to what policymakers and theorists think are important for adapting contract terms to others' consumer choices or their own choices. The comprehension questions could be incentivized with a small rebate on the purchase. The clickstream could reveal whether consumers reenter the site and how long they spend trying to answer questions (and rule some consumers out in the analysis if desired).

In any event, even if the reading rate is still shown to be very low and not responsive to the degree of disclosure, we still do not know whether the minority who read and find bad contract terms tell others via the Internet to avoid certain products and companies. Then one runs into a denominator problem where the percentage reading remains low but the actual Internet traffic to the product declines.

The second main finding (section 1) is very difficult to interpret: "[T]hose (few) shoppers who actually read the contract do *not* respond to what they see there." There are at least two layers of selection. First, those who read an easy-to-access contract and those who read a hard-to-access contract are going to be different. It may be the case that consumers reading an easy-to-access contract are highly inelastic, not caring about the terms, whereas consumers searching for a hard-to-access contract are highly elastic and care about the contract terms. The paper might

have discussed how this could bias the estimates. Second, product quality can be different for different contracts, as observed in Chari's (2010) paper.

On another level, if the minority who read and find bad contract terms tell others via the Internet (indeed, would not firms whose products compete with the listed product have an incentive to do so?), then bad terms actually do deter purchases, but the paper's methodology would conclude that they do not, since the sample of readers do not appear deterred by a contract's pro-seller rather than pro-buyer bias. For instance, some products are reached via third-party intermediaries that aggregate information and sometimes include contract terms or a link to them. Thus it is even possible for consumers to have read the contract terms before reaching the product website.

The paper concludes with a note on policy. It suggests contract rating systems, much like a consumer bureau agency, and eliminating class-action waivers to allow consumers to more easily litigate over improper contract terms. These policies may very well be justified, but they are not a clear inference from the presented evidence. There may also be more direct ways to achieve the goals of these policies. One could require the five or so criteria that the paper deems most important for contract proseller versus pro-buyer bias to be emblazoned on contracts like tobacco warnings in the U.S.

I think the paper adds to and extends the research agenda on contract disclosure. I hope that many others follow suit with similarly detailed and praiseworthy work.

## References

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