CONSUMER-DRIVEN CHANGES TO ONLINE FORM CONTRACTS

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Consumers have been using widespread negative feedback to make firms change their online standard form contracts. In 2009, for example, backlash against an update to Facebook’s terms of service caused the company to rewrite its entire agreement. Such consumer action challenges the view that sellers can take advantage of consumers’ inattention to fine print by offering one-sided terms and suggests new directions for contract policy and regulation. This Note looks to the literature on seller reputation to predict what factors are relevant to firms’ decisions to capitulate and evaluates the importance of each factor using case studies. It finds that the factors most predictive of when a firm will come under attack and capitulate are how large and old the firm is, whether the product or term is new or has recently changed, what type of term is involved, whether the term directly affects the firm’s revenue, and the type of news source that raised the issue.

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* J.D., New York University; B.A., University of California, Berkeley. For suggestions and guidance I am grateful to Florencia Marotta-Wurgler, Oren Bar-Gill, Kevin Davis, Heski Bar-Isaac, Jennifer Arlen, Ira Rubenstein, the 2010 Lederman/Milbank fellows and the editors of Annual Survey of American Law, especially Lina Bensman, Trevor Mauck and Nicolle Nonken. This Note received financial support from the Lawrence Lederman/Milbank, Hadley, Tweed & McCloy Fellowship in Law and Economics and was awarded the Daniel G. Collins Prize at the New York University School of Law.

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Imagine that you are in charge of a popular social networking site. Your site has millions of users and is growing quickly. As the site expands, a problem arises: how should you handle content that one user removes but others still have access to?¹ Your engineers resolve the technical issues, but the legal issues prove harder to address. Eventually your legal team decides to change the terms of service so that the company maintains a license to content that users have removed. Everything seems to go well, and you consider the issue resolved. Suddenly, weeks later, a scathing news story appears claiming your site is using its terms of service to claim ownership of users’ content indefinitely. The story becomes very popular, and within days even The New York Times has covered the issue. Given the torrent of negative press, you revert to the old terms and reconsider how to approach the legal problems.

Facebook experienced a similar problem in February 2009,² and other companies have as well. These incidents suggest the conventional wisdom on standard form contracts may need updating. Many have speculated that firms will offer unfair terms because very few consumers actually read the contracts they agree to.³ As it turns out, however, the terms are often not as consumer-unfriendly as they could be,⁴ and the quality of these terms may be explained in part by the enhanced risk of reputational damages firms face on-

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¹. For example, personal messages between users.

². See infra notes 157–58 and accompanying text.


⁴. See Florencia Marotta-Wurgler, What’s in a Standard Form Contract?: An Empirical Analysis of Software License Agreements, 4 J. Empirical Legal Stud. 677, 702–06 (2007) (finding that terms of many license agreements are only slightly less pro-bayer than the consumer-friendly default rules of Article 2 of the Uniform Com-
The reduced costs of online communication allow consumers to act more effectively against sellers who offer unpopular terms, encouraging those sellers to offer better ones. For example, suppose a blogger or news writer runs a story on a "bad" term in an online standard form contract that offers little protection of a user’s privacy. The story gains momentum virally as it is picked up by other blogs and news outlets and, within hours or days, news about the term is everywhere. The firm then responds to the negative press by modifying or removing the controversial term.

Previous literature has suggested that a variety of factors may affect how a firm values its reputation. This Note uses case studies to evaluate the extent to which these factors affect a firm’s decision to capitulate to negative consumer press and change its terms. Based on the cases, this Note finds that the larger the firm is, the more likely it is to capitulate to consumer demand; that the age of the firm is not particularly relevant to capitulation; that certain terms, such as ownership of user content or user privacy are more likely to be attacked by consumers, but if the terms directly impact firm revenue they are unlikely to be changed; and, finally, that the original source of the news may matter at least as much as the number of sites that eventually report on the issue.

Part I discusses existing ways firms are disciplined into offering consumer-friendly terms in order to provide context for the reputation-based mechanism discussed above. It then derives factors potentially relevant to the reputation-based mechanism’s success and presents the methodology for collecting case studies used to evaluate these factors. Part II discusses the results of these case studies and explains why some factors are more relevant than others in pre-


6. Consider, for example, a term that used to be in AOL’s terms of use for its instant messenger service: “You waive any right to privacy.” See infra note 252 and accompanying text.

7. See infra note 36.
dicting reputation-driven changes to terms. Part III explores the policy implications. The Appendix contains the case studies and tabular data used to evaluate the factors from Part I.

I. BACKGROUND

Standard form contracts come with a number of advantages and disadvantages. On the one hand, sellers can reduce transaction and agency costs by not contracting with individual buyers and the resulting savings can be passed on to the buyers. Sellers can also benefit from using terms in repeated transactions as the terms are cheap to reuse in drafting and the effects of the term become better understood over time. On the other hand, buyer ignorance may lead to one-sided terms. Either sellers will be tempted to take advantage of consumers, or consumers will not shop around for terms, reducing the incentives for firms to offer attractive terms.


Buyer ignorance is common because consumers do not read the terms of the standard form contracts they agree to. But even if consumers did read the terms, the average consumer would be unlikely to comprehend their meaning and effect. The high cost of reading and understanding may lead a rational consumer to avoid reading terms altogether. Knowledge of other consumers' reading or lack thereof may also influence the potential reader—if no one else reads, one consumer's reading would be unlikely to discipline sellers. Alternatively, if everyone else reads, there are poten-
tial free rider issues, as sellers would already be disciplined into offering fair terms.\textsuperscript{16} Other commentators suggest that irrationality may explain why consumers do not read or understand terms.\textsuperscript{17} Regardless of why reading is a rare phenomenon, if no consumers read contracts then the lack of informed consumers can lead sellers to offer one-sided terms.\textsuperscript{18}

A. Existing Disciplinary Mechanisms

Given consumers’ inattention to fine print, a variety of other disciplinary mechanisms have been suggested. These mechanisms are not without their own problems, however. This section reviews issues with such disciplinary mechanisms and suggests a place for a reputation-based mechanism utilizing online information flows.

Though it is generally accepted that most consumers do not read standard form contracts, some have suggested that an informed minority of readers who factor the quality of terms into their purchasing decisions will discipline sellers.\textsuperscript{19} Assuming all buyers have the same preferences for terms, and assuming sellers cannot discriminate among buyers in the terms they offer, the existence of an informed minority of a certain critical size should cause firms to offer fair terms to all—the cost of losing the group would otherwise be too high. But others have suggested that the costs of searching, reading, and comparison shopping for terms will outweigh the (likely small) risk that the unfair terms will actually be applied against them, and therefore no informed minority will exist.\textsuperscript{20} This problem may be mitigated online to the extent that the cost of attaining such information is reduced,\textsuperscript{21} but serious questions remain about the existence of an informed minority, espe-

\begin{thebibliography}{99}
\bibitem{} See Becher & Zarsky, \textit{supra} note 5, at 342.
\bibitem{} This may be due to an inability to consider all the terms of the contract. \textit{See}, e.g., Korobkin, \textit{supra} note 11, at 1206. It may also be due to an inability to gauge the risk involved in certain terms and not reading them. \textit{Cf.} Oren Bar-Gill, \textit{Seduction by Plastic}, 98 \textit{Nw. U. L. Rev.} 1373, 1407 (2004).
\bibitem{} \textit{See} Schwartz & Wilde, \textit{Intervening in Markets}, \textit{supra} note 11, at 661 (discussing the conditions in which this equilibrium would take place).
\bibitem{} \textit{Id.} at 660.
\bibitem{} \textit{See} Meyerson, \textit{supra} note 11, at 601. \textit{But see} Patricia M. Danzon, \textit{Comments on Landes and Posner: A Positive Economic Analysis of Products Liability}, 14 \textit{J. Legal Stud.} 569, 571–72 (1985) (“\textit{It is not so obvious that the costs of obtaining information so clearly outweigh the benefits.”}).
\bibitem{} \textit{See} Becher & Zarsky, \textit{supra} note 5, at 343–44.
\end{thebibliography}
cially as it has been shown not to exist in certain online contexts. 22
Further, even if enough potential readers existed, a firm may not sell to buyers who read standard form contracts closely if the firm believes such buyers will be more likely to breach. 23

Others have suggested that sellers will make salient terms more consumer-friendly in order to attract additional buyers. 24 One method of doing so involves advertising consumer-friendly terms. However, firms may find the money spent advertising certain terms could be better spent elsewhere. 25 Even to the extent that firms do offer such salient terms, the costs of doing so would limit them to a small portion of the contract. 26 Thus, this theory of friendly, salient terms would still allow for a consumer-unfriendly agreement on the whole, especially if salient terms are only a small part of the contract. 27

Firms may also choose not to enforce unfriendly terms on a case-by-case basis if an issue arises, at least absent opportunistic behavior by a consumer. 28 While doing so may enhance the reputation of the firm, such limited concessionary behavior still leaves the

22. This has been shown empirically in the online context. See Bakos, supra note 3, at 26–27. Although this study only concerned software license agreements, if users do not read clickwrap agreements they are forced to click through, they probably will not read browse-wrap agreements, which require even less effort to agree to.


25. For example, firms may prefer to spend the money advertising more salient product attributes such as price. Cf. James P. Nehf, Shopping for Privacy Online: Consumer Decision-Making Strategies and the Emerging Market for Information Privacy, 1 J. LAW, TECH. & POL’Y 1, 35 (2005) (discussing problems with marketing terms in the privacy context).


27. See Korobkin, supra note 11, at 1225 (“Decision research does provide a basis, however, for predicting that terms found in form contracts frequently will be non-salient to most buyers.”).

28. See Lucian Bebchuck & Richard Posner, One-Sided Contracts in Competitive Consumer Markets, 104 MICH. L. REV. 827, 827–28 (2006); Clayton P. Gillette, Pre-Approved Contracts for Internet Commerce, 42 HOUS. L. REV. 975, 977 (2005); Gillette, supra note 24, at 705. For an observation of this theory in practice, see Omri Ben-Shahar & James J. White, Boilerplate and Economic Power in Auto Manufacturing Con-
vast majority of consumers with one-sided terms ex ante. This behavior also does little for unsophisticated consumers who are unaware of the possibility and therefore will not take advantage of it.\textsuperscript{29}

Ex post corrective mechanisms such as unconscionability may alleviate the problem, but these mechanisms present other issues.\textsuperscript{30} Litigation is expensive, inconvenient, and unpredictable, providing little incentive for individual consumers to go to court.\textsuperscript{31} Court-based resolutions are also slow relative to the speed with which End User License Agreements (EULAs) can change online.\textsuperscript{32} Such resolutions may therefore be moot before they are ever rendered.

The advent of the Internet has provided consumers with other means to discipline firms. For example, some have suggested that increased information flow online between buyers and potential buyers regarding contract quality may lead firms in competitive markets to offer better terms.\textsuperscript{33} Improved consumer communication and cooperation has little effect on problems with existing ex post mechanisms, but it does allow for the creation of new ex post mechanisms based on reputational sanctions. Such mechanisms often take the form of ratings that users can post online after buying the product. While it has been shown that online ratings for products will not always discipline sellers,\textsuperscript{34} a similar system for the

\textsuperscript{29} Contra Becher & Zarsky, \textit{supra} note 5, at 342 (suggesting online information flow will reach enough consumers for this to be effective).


\textsuperscript{32} The phenomenon covered by this paper, for example, often takes place over a matter of days, while litigation can take months or years. Consider, for example, a German court that required Google to change its terms of service one year after it had already done so. See Richard Koman, \textit{German Court Orders Google to Change TOS - A Little Late}, \textit{ZDNET}, (Sept. 1, 2009, 6:43 AM), http://government.zdnet.com/?p=5328; \textit{Google Chrome}, infra Appendix.

\textsuperscript{33} See Hillman & Rachlinski, \textit{supra} note 5.

\textsuperscript{34} See Chari, \textit{supra} note 5, at 1622.
form contracts themselves could supplement the corrective function of litigation.\textsuperscript{35}

This review of the existing disciplinary mechanisms for firms’ terms suggests there is room for improvement. The reputational mechanism, discussed below, helps address some of the shortcomings of other mechanisms.

B. Reputation-Based Mechanism

Consumer-based online reputation sanctions can function as a useful disciplinary mechanism against firms. As consumers are unlikely to be aware of the terms of the form contracts they enter into or how such terms are applied, the firm’s reputation may serve as a proxy for this information.\textsuperscript{36} When a firm’s reputation comes under attack due to criticism of the terms it offers, the firm will often choose to preserve its reputation by changing the terms of its standard form contract.\textsuperscript{37}

In order for this mechanism to be effective, someone besides the firm must be familiar with the terms,\textsuperscript{38} there must be an effective way to communicate that person’s experience with others, and the firm must actually care about its reputation.\textsuperscript{39} As the case studies will show, news organizations and bloggers often satisfy the first

\begin{footnotesize}
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\item \textsuperscript{36} See Daniel D. Barnhizer, \textit{Inequality of Bargaining Power}, 76 U. COLO. L. REV. 139, 219–20 (2005) (“Reputational information is crucial to promoting competition among suppliers on non-price terms because consumers must rely upon a firm’s reputation for satisfying consumer needs as a proxy for the ‘fairness’ of the firm’s contracts.”); Duncan Kennedy, \textit{Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power}, 41 Md. L. Rev. 563, 600 (1982) (suggesting rational buyers might ignore terms in the hope that the seller is sufficiently concerned with its reputation to offer fair ones).
\item \textsuperscript{37} See, for example, the Facebook incident, \textit{infra} notes 157–58 and accompanying text.
\item \textsuperscript{38} There is an implicit assumption that the contract reader can accurately spot unfair terms and will react against those terms, as opposed to other terms that are actually fair. But given the description of consumer understanding of standard form contracts, this assumption may be difficult to make. See Ostas, \textit{supra} note 13; see also Douglas G. Baird, \textit{The Boilerplate Puzzle}, 104 Mich. L. Rev. 933, 939 & n.19 (2006) (explaining how terms that seem unfair to a consumer may actually be most efficient overall).
\item \textsuperscript{39} See Baird, \textit{supra} note 38, at 938.
\end{enumerate}
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requirement. As to the second requirement, the Internet provides a relatively easy means of disseminating information about issues with a firm’s standard form contract, which may cause the firm’s reputation to suffer. It is also presumed that firms tend to care about their reputation. This Note assumes these requirements are met in order to perform an analysis of how exactly the firm’s reputation is affected and how the firm responds when consumers protest en masse the terms of the firm’s contract.

Whether a firm will come under attack and how it will respond might best be predicted using a set of descriptive factors. Tadelis and Bar-Isaac provide a foundation for such a framework using reputation for products. They suggest that four factors determine whether reputational concerns lead to efficient trade: the extent of uncertainty about the seller, the rate of information diffusion among buyers, the value the seller places on future interactions, and how sensitive buyers are to reputation. Because consumer uncertainty about the seller’s characteristics may be important, the analysis should take those characteristics into account. Seller characteristics should also prove relevant as different types of firms may make different decisions about capitulation. The rate of information diffusion among buyers means that the characteristics of the news coverage that accompanied the issue, particularly the size and

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40. Such groups may have an incentive to read the terms to create news. They may also be effective to the extent that they are considered trustworthy sources of information, which can be an issue for online news sources. See Tal Z. Zarsky, Law and Online Social Networks: Mapping the Challenges and Promises of User-Generated Information Flow, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 741, 778–80 (2008) (discussing the difficulties in ensuring accreditation of information and possible solutions); Becher & Zarsky, supra note 5, at 333–40.

41. Compare Meyerson, supra note 11, at 606–07 (noting in the offline context how damages from discovery of inefficient terms are often less than cost of offering more efficient ones, limiting the effectiveness of reputational constraints in this context), with Bakos & Dellarocas, supra note 35, at 17–18 (“Internet-based online reputation mechanisms provide easily accessible, low cost focal points for previously disjoint groups to pool their experiences with service providers and merchants into a single feedback repository [regarding reputation].”); see also Becher & Zarsky, supra note 5 and accompanying text. For a review of studies on information sharing-based mechanisms may operate offline, see Macleod, supra note 31, at 614–15.

42. See Baird, supra note 38, at 938 (2006) (suggesting reputational concerns as a limit on use of boilerplate in business-to-consumer contracts).


44. See id. at 279.
sources of news, should matter.\textsuperscript{45} Buyers’ sensitivity to reputation may depend on what is being bought, meaning the characteristics of the product and terms of the contract governing the product should be relevant. Thus, there are four broad categories of factors: (1) the characteristics of the firm, (2) the characteristics of the product or service, (3) the characteristics of the contract term in controversy,\textsuperscript{46} and (4) the characteristics of the news coverage the issue receives.

With respect to the first category, firms whose products and contracts are exposed to a large number of people should be more likely to face scrutiny online.\textsuperscript{47} Firms that have spent a significant amount of time and effort building and protecting their reputation may also be more sensitive to such attacks when they happen.\textsuperscript{48} New companies, by contrast, have generally invested less overall in their reputation, making it cheaper to drop their “brand” and reinvent themselves.\textsuperscript{49} Further, new entrants to the software market are frequently acquired by larger, long-term players,\textsuperscript{50} which may lead some entrants to discount long-term reputation. Finally, both the size and age of the firm have been shown to be relevant to the types of terms offered in the context of software license agreements.\textsuperscript{51} Therefore each firm’s revenue, employee count, and age are all potentially useful factors in determining when a firm comes under attack and when it will capitulate.

\textsuperscript{45} It has been suggested that a certain critical mass is required for any reputation-based mechanism to work. See Bakos & Dellarocas, supra note 35, at 1.

\textsuperscript{46} This category of factors is not derived from the literature, but this Note includes it because not all terms will have the same likelihood of being attacked or causing a firm to capitulate.

\textsuperscript{47} See generally Rafael Rob & Arthur Fishman, Is Bigger Better?: Customer Base Expansion through Word-of-Mouth Reputation, 113 J. Pol. Econ. 1146 (2005) (finding that a firm’s investment in quality is positively related to its size, and therefore, a good reputation is more valuable to a larger firm).

\textsuperscript{48} See id. at 1155–58. Note this assumes some correlation between the amount invested in reputation and the value of the reputation.

\textsuperscript{49} Cf. Bar-Isaac & Tadelis, supra note 43, at 309.

\textsuperscript{50} See CASEY THORMAHLEN, IBISWORLD, SOFTWARE PUBLISHING IN THE US (July 2010), at *5 (“During the past five years, large software publishers eagerly bought smaller publishers with specialties in growing software niches . . . . As continued technological development drives innovation during the next five years, acquisition activity within this industry will grow more robust.”), available at http://www.ibisworld.com/reports/reportdownload.aspx?cid=1&krid=1&ee=1299&ft=pdf&beta=y.

\textsuperscript{51} See Marotta-Wurgler, supra note 4, at 708; see also Bar-Isaac & Tadelis, supra note 43, at 312–13 (“[W]hen a firm is bigger, it has a larger buyer base, and so, new buyers . . . are more likely to hear about successful or failed transactions of a large seller than a small seller.”).
The second category, the features of the product or service that the contract governs, should be relevant as well. The more users of the product there are, the more likely new consumers are to learn from existing users about reputation. In addition, assuming that the longer a company delivers on a good reputation, the more users it will accumulate, then the cost of losing the reputation (and sales) increases over time and the firm will likewise be increasingly concerned with maintaining that reputation. Flagship products may indirectly reflect this, as they tend to have the most users, and companies are likely more concerned about consumer perception of such products and accompanying terms. The length of time the product has been on the market likely matters as well—products that have been around longer will likely have garnered a greater reputational value that would be more costly to lose. But firms should also be interested in making sure a brand new product does not start with a negative reputation, and thus should be very sensitive to reputation at the product's launch. New or updated products may also attract more attention as consumers have a reason to look at the product (and the contract) in more detail in such circumstances. The revenue model for the product may also matter. There are at least two distinct revenue models in the software industry: in the traditional revenue model, consumers buy a product for a set price; newer models, by contrast, involve free software and services supported by advertisements. Recent trends suggest that free, ad-supported software and services tend to be provided online.

52. See Bar-Isaac & Tadelis, supra note 43, at 312–13; Rob & Fishman, supra note 47, at 1147–48 (providing a model).
53. Rob & Fishman, supra note 47, at 1149.
54. As defined in the Appendix, infra, this paper generally considers a flagship product to be the one that generates the highest revenue for the company.
55. Starting out with a negative reputation could be disastrous—with a negative reputation, no customers will buy the product and change the negative reputation. Cf. Bar-Isaac & Tadelis, supra note 43, at 284–85. Though the firm could attempt to rebrand the product, note the difference here between new products and new companies. While a new company may find it cost effective to reinvent or rebrand itself, the same would not work as well for a new product—even if the company rebrands a new product with a bad reputation, the company itself has taken a reputational hit as a result of the product.
56. America Online, for example, recently switched to providing its email services for free, supported by advertisements. See AOL Inc., Annual Report (Form 10-K) (March 2, 2010) (“Following our strategic shift in 2006 from focusing primarily on generating subscription revenues to focusing primarily on attracting and engaging Internet consumers and generating advertising revenues, we have become increasingly dependent on advertising revenues as our subscription access service revenues continue to decline.”), available at http://sec.gov/Archives/edgar/data/1468516/000119312510045310/d10k.htm.
more often than non-free software. Free products may also have different reputational values or effects for consumers than products consumers purchased. This Note will therefore consider the number of users of the product, whether the product was recently released or updated, whether the product is a flagship product, and whether the product was offered for free.

The third category, the features of the contract term subject to controversy, should also be relevant. From the company’s perspective, terms that directly affect the firm’s revenue should be considered most important. A term whose modification or removal would immediately cost the company millions of dollars should be more highly valued by the firm than one with an uncertain financial effect far in the future. Firms may also be more willing to capitulate on terms that are relatively new and have yet to develop strong network effects. In such cases the benefits of using the term are diminished as it is not widely used, and thus the costs of dropping the term would be relatively low as well. From the consumer perspective, more salient terms (those that are easy to understand or that cover particularly sensitive issues, such as privacy or ownership of user-generated content) should generate more interest and backlash than obscure terms that consumers do not understand or do not think will affect them. Finally, consumers may be more inclined to check out a contract when it first becomes available to them or has recently been updated. Thus, the overall type of term,

57. GRAHAM VICKERY & SACHA WUNSCH-VINCENT, ORG. FOR ECON. CO-OP. AND DEV., PARTICIPATIVE WEB AND USER-CREATED CONTENT: WEB 2.0, WIKIS AND SOCIAL NETWORKING 49–50 (2007) (“Advertising is often seen as a more likely source of revenue for [user-created content] and a significant driver for [user-created content] . . . most of the hopes to monetise [user-created content] are currently placed on purely advertising-related business models.”); David Evans, The Online Advertising Industry: Economics, Evolution, and Privacy, 23 J. ECON. PERSP. 37, 37 (2009) (“Fifty-six of the top 100 websites based on page views in February 2008 presented advertising; these 56 accounted for 86 percent of the total page views for these 100 sites. Twenty-six of these 56 sites, accounting for 77 percent of all page views for the top 100 sites, likely earn most of their revenue from selling advertising.”).

58. At the very least, consumers choose to read EULAs for free software more often than for paid software. See Bakos, supra note 3, at 27. One explanation is that consumers are concerned about the hidden costs of free software and services. Id. at 34.

59. Network effects are benefits (or detractions) as a result of multiple using the same type of good—for example, the more people that use a social networking site, the more value it has to its users. See Kahan & Klausner, supra note 10.

60. See Korobkin, supra note 11, 1229–34.
whether the term has a direct financial impact on the firm, and whether the term is new or was recently changed should all matter.

The fourth category, the quality and quantity of news coverage of the issue, should also matter. The greater the news coverage, the greater the number of informed consumers, and the more the firm’s reputation will suffer. The type of news coverage may matter as well (for example, news outlets versus blog posts) due to issues with accreditation and trust.61 While the type of site covering the issue may matter, the source of the original news story should be even more important (and easier to measure). For example, if the source is not well accredited by the target consumer group or is not frequently visited, it may not create a story that catches on. Thus, the number of news and blog post hits, both before and after capitulation, as well as the amount of traffic the website that started the story normally receives, should all be important.

C. Methodology

This Note collects case studies to evaluate the factors discussed above. The case studies were found by searching for the terms “EULA,” “terms of use,” and “privacy policy” on Digg62 and Slashdot,63 both of which are large online technology-oriented news websites.64 The timeframe for the searches was January 2000 to December 2009. To be included in the study, an incident had to be an attempt started by American consumers to change all or part of a firm’s business-to-consumer EULA, privacy policy, or terms of service for a product or service offered online. The attempt must have started online, have primarily been carried out online, and have had its origins in consumers’ concern about or disapproval of a contract or a term in a contract.

61. See Zarsky, supra note 40.
64. A previous, more complicated methodology was attempted before this one was chosen. The previous methodology looked at events found by performing limited searches on multiple news websites selected based on Alexa rank and category. This methodology tended to capture large events, biasing the sample. Digg happened to have nearly every event found by the above methodology, and Slashdot also captured many of the events. As a result, this Note employs a methodology consisting of a more thorough search of just those two cites. This methodology is similar to one used for an empirical study of mutual fund scandals. See Stephen Choi & Marcel Kahan, The Market Penalty for Mutual Fund Scandals, 87 B.U. L. REV. 1021, 1026 (2007) (using Westlaw to search the Wall Street Journal for incidents to be included in an empirical study).
All incidents that matched these criteria were included in the study, resulting in a total of eighteen cases. Each of the incidents is summarized in the Appendix. The Appendix also contains tables giving the value of each variable for each case. The incidents range from very large-scale, successful attempts at change to very small attempts that never took off. Some firms were involved in multiple incidents, permitting an analysis that controlled for company characteristics.

Though the requirement that the incident appear on Digg or Slashdot suggests that the sample may be biased towards larger incidents, a number of cases in the sample are single blog posts, arguably the smallest possible incident. Large companies may also have generated more than one incident, so the analysis in Part III controls for whether a company had multiple incidents. Multiple incidents across a given company also provide an opportunity to study outcomes while controlling for an important variable. The sample may also be biased to the extent that it only covers online products and services. This was done to keep the study manageable; adding incidents for offline products and services would increase the amount of data collection beyond a reasonable scope. Limiting the sample in this way is not intended to suggest that there is not a similar effect offline—there almost certainly is.65 But it is beyond the scope of this Note.

II. RESULTS

This section uses the methodology explained in Part I.C to determine how predictive each factor from Part I.B is of a company coming under attack and capitulating. The conclusions in this section are limited by the scope of the data they are drawn from. Though a search methodology is used, the data collected is by no means a comprehensive empirical study, and thus it cannot be used

65. See Becher & Zarsky, supra note 5, at 348 n.193. This is especially common for firms that provide cell phone service or Internet connectivity. See, e.g., Ken Fisher, AT&T Relents on Controversial Terms of Service, Announces Changes (Updated), ARS TECHNICA http://arstechnica.com/tech-policy/news/2007/10/att-relents-on-controversial-terms-of-service-announces-changes.ars. Then again, it is possible the mechanism has an enhanced effect for online products and services. Consumers are already using the Internet to buy and use the product or service, so it may be a small step to use that same medium to criticize terms that govern them. See Hillman & Rachlinski, supra note 5, at 471 (“Inasmuch as e-businesses’ biggest customers are also most likely to use the Internet to investigate the goods and services, however, the availability of Internet research will have a greater effect on e-businesses than on conventional businesses.”).
to make definitive statements about the phenomenon covered in this paper. The number of cases is large enough, however, to at least provide insight into what may be relevant. Overall, the companies in the sample tended to be large (though not necessarily old), and older and larger firms capitulated more often than younger, smaller firms. New and recently updated products tended to attract the most attention, as did products offered for free, and companies tended to capitulate more often for such products. Whether a product was a flagship product, by contrast, did not seem to matter. Terms concerning licensing and ownership of user-generated content tended to be especially prone to consumer attack and firm capitulation, while terms with a clear financial impact on the firm were more resistant to change. Finally, the source of the news about the term tended to matter, while the quantity of press the issue received, as measured by Google News and Google Blog Search, did not matter as much.66

The following subsections analyze each category of factors in greater detail and attempt to explain why the factors were or were not relevant in the case studies. Tables in the Appendix provide the data for each of these categories.

A. Company Factors

In order to properly analyze variables such as revenue and age, one must have something to compare them against. As all the companies in the sample provide a product written with software code, this Note looks to the software industry for comparable figures. In doing so, it assumes that all firms in the software industry are susceptible to attack.67 Estimates of mean revenue for software firms vary, but they tend to be in the range of approximately five to twenty million dollars. First Research, for example, estimates 2010 mean revenue to be $4.4 million for software companies and $14.8 million for Internet publishing companies (such as Google).68 IBIS

66. For an explanation of how these services were used, see Table 4 infra in the Appendix.

67. Data gathered for a forthcoming study shows that the vast majority of software companies do use license agreements and have an online presence; in theory this should be sufficient to make the firm susceptible to reputational attack. Florencia Marotta-Wurgler & Robert Taylor, The Evolution of Boilerplate (N.Y. Univ. Sch. of Law Working Paper 2011).

estimates 2010 mean revenue for software companies to be $21.8 million. Preliminary U.S. Census data from 2007 estimates mean revenue for software companies to be $16.2 million. These numbers may be slightly skewed upward given the concentration of revenue within certain very large companies in the industry. Given the different estimates, this Note will use $15 million as an approximation of mean revenue for the software and online services industries. The average number of employees per firm also varied, but tended to be around fifty. IBIS estimates mean employees per firm to be forty-nine in 2010. Preliminary U.S. Census data from 2007 estimates mean employees per firm to be forty-five. These numbers may also be slightly skewed upward, as many of the highest revenue companies also tend to have the most employees. This Note will therefore use fifty as an approximation of the mean number of employees for the software and online service industries. Statistics on age were more difficult to come by. A study by Florencia Marotta-Wurgler gathered data on hundreds of software companies listed in the 2005 Software Industry Directory. The average age of these companies was fifteen years.

Most cases in the sample have both a revenue and employee count above the mean, suggesting that larger companies are more prone to consumer attack. The results also show that, where data was available, those companies whose revenue and employee counts

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71. As of 2010, the fifty largest software companies generate about 70% of the software industry’s revenue. First Research I, supra note 68. By another estimate, the top four companies account for half of the industry’s revenue. IBIS, supra note 69. U.S. Census data for 2002 estimates the four largest firms captured 39% of the industry revenue, and the fifty largest captured two thirds of the industry revenue. Software Publishers, NAICS 5112, 2002 Economic Census: Information, Industry Series, Bureau of Census (Oct. 2004), available at http://www.census.gov/econ/census02/data/industry/E511210.HTM [hereinafter NAICS].

72. See IBIS, supra note 69.

73. See NAICS, supra note 71.

74. See Table 2 infra in the Appendix.

75. See Marotta-Wurgler, supra note 4.

76. Id.

77. At least twelve companies in the sample (there were sixteen unique companies in the sample) were above the mean for revenue, and at least thirteen companies were above the mean number of employees (data was only available for seventeen). Excluding companies that were missing data (which may create a bias
were above the mean capitulated almost every time. Of the incidents involving small-revenue or small-employee companies for which at least some data was available, only once did a company capitulate, and in only one other incident did the company even attempt to address the issue. This supports the idea that larger companies are both more susceptible to attack and more prone to capitulation given their large consumer bases and potentially large investment in developing their products. Smaller companies, by contrast, might feel there is less on the line with such attacks; they may also be less capable of responding to such incidents if they have limited resources.

Age also correlated with capitulation. Though few cases involved companies with an age greater than the average age of fifteen years, in all such cases the company changed its terms. By contrast, companies below the median age capitulated just over half the time. This at least does not contradict the idea that older companies may be more prone to capitulation.

For a given company, the reaction across different incidents tended to be consistent. Microsoft capitulated to public scrutiny of its Passport terms of service and two of three terms for Windows Vista’s EULA, and Google capitulated regarding both Chrome and Google Docs. This may suggest company features matter more than other features.

Towards larger companies), twelve of thirteen were above mean revenue and thirteen of fifteen were above the mean number of employees.

78. Eleven of thirteen such incidents resulted in capitulation. None of the companies matching these criteria addressed the issue without changing its terms.

79. Dropbox capitulated; Flagship Studios posted a notice about the disputed terms but did not change them. The other three companies did not do anything. See Appendix infra.

80. Such companies may not have the money for legal advice on the issue; they may also not have a large customer relations department with experience dealing with large-scale consumer issues. For example, some companies that were small at the time of the incident, such as Bioware, see infra notes 257–62 and accompanying text, or Flagship Studios, see infra notes 212–18 and accompanying text, primarily used their own website (either through forums or a news post) to address the issues they faced.

81. In all five cases where data was available and the firm was above the mean age, the company capitulated.

82. In seven of thirteen cases for which data was available and the company was below the mean age, the company capitulated. In the two cases where the company did not, the company at least attempted to address the issue.

83. See infra notes 226–237 and accompanying text.


85. At the same time, however, it may be debatable how different some of the incidents across a given company really are. While in Microsoft’s case, the differ-
The results suggest that larger, older companies are more likely to come under attack and are more likely to capitulate than smaller, younger companies. That the results tended to be consistent across different incidents for the same company further suggests the importance of these company characteristics.

B. Product Factors

Flagship products were more likely to come under attack than other products in the sample, but firms were less likely to respond to consumer demands in such cases. More than half of the cases involved flagship products, but fewer than half of those cases resulted in capitulation. By contrast, in all seven cases involving a non-flagship product, the firm capitulated. Many of the cases that did not involve flagship products nevertheless involved products that were a significant source of revenue for a company or involved a free version of the flagship product (such as OpenSUSE or Photoshop Express). Some companies could also reasonably be considered to have more than one flagship product. This could explain why the flagship product variable was not particularly predictive of capitulation. Alternatively, perhaps firms adopt the same policy on capitulation across all products. It is also possible that even if the variable does have some relevance, other variables, such as the company characteristics discussed above, are simply more important. For example, many cases involving non-new and non-flagship products that resulted in capitulation also involved companies with characteristics consistent with those that capitulate.

Whether the product was recently released or updated appears to be more relevant. More than half of the cases involved a new or updated product, and in such instances the company nearly always capitulated or at least addressed the issue. For non-new products,
the company capitulated or addressed the issue in just over half of the cases. That over half of the cases involved new products suggests consumers are much more likely to read the contract when a product is released or updated. This may be because consumers have not encountered the license before, there is less knowledge of the product, and its reputation will not have fully formed yet. That nearly all cases with new or updated products resulted in capitulation suggests that firms may be more sensitive to creating a strong reputation for a product that does not yet have one or whose reputation may change since the product recently changed.

As discussed previously, non-free products and free, ad-supported products are two different revenue models in the software industry. The cases were split fairly evenly between these two models, but free software and services resulted in a much higher capitulation rate than non-free software. Capitulation by free software and services companies was nearly universal, while very few non-free cases resulted in capitulation. It is possible the strong online presence of the free software and services makes their characteristics and reputation particularly susceptible to the improved information flow over the Internet. It may also be a result of a latent company characteristic: companies in the sample tended to offer either free software and services (such as Google or Facebook) or non-free products (such as 5th Cell), but generally not a mixture of both.

The number of users of the product at the time of the attack mattered. Almost all of the products that came under attack had over a million users. This result is not surprising, since the more users there are, the more likely it is that one will disagree with some of the terms. The results with the capitulation rate are more interesting. One would expect that the more users a product has, the more press the product will receive, and the more likely the company will be to capitulate. Thus, it is somewhat counterintuitive that cases above the average with respect to the number of users had a

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91. Specifically, in four of seven cases. No companies in this category addressed the issue without capitulating.
92. Free software and services comprised eight of the eighteen incidents.
93. Ten of eleven cases.
94. Two of seven cases.
95. See Becher & Zarsky, supra note 5 and accompanying text.
96. See Table 2 infra.
97. Thirteen of fifteen, where data was available. Cases where data was not available likely had, if anything, a lower number of users.
lower rate of capitulation than those below the average. While this result is consistent with the flagship product characteristic not being highly correlated with capitulation, it is not obvious why this should be so. It is likely that either ten million users is far more than what is needed to put pressure on a firm to capitulate, or the number of users is only relevant to whether a company gets attacked, but not to whether it capitulates. Since products with fewer than a million users, or for which no user data was available (which likely indicates fewer, not more, users), were much less likely to result in capitulation, perhaps the former is the correct explanation.

Based on the limited dataset, firms appear most concerned when products are new, updated, or offered for free. Whether the product was a flagship product and, at least to some extent, the number of users of the product both appear to be less predictive of capitulation.

C. Term Factors

One would expect that the likelihood of capitulation would be better correlated with contract term characteristics than with product characteristics. Consistent with this hypothesis, certain types of terms were strongly predictive of whether a firm would come under attack and whether it would capitulate.

Close to half of the incidents involved a term about firms’ license to user generated content. Of these, all resulted in the firm capitulating or at least addressing the issue. There are a number of possible reasons why such terms are attacked so frequently. Consumers might believe the term requires them to give up something they made, which might be more troublesome to them than giving away something they are less invested in, such as an obscure con-

98. Of the cases for which data was available, seven of fifteen involved more than ten million users, and eight of fifteen involved fewer than ten million users. For incidents with more than ten million users, five of seven resulted in capitulation, but for incidents with fewer than ten million users, six of eight cases resulted in capitulation. The cases where the number of users is missing likely have fewer than ten million users, since these companies tended to be smaller. If we add these in to the count for fewer than ten million users, the result remains essentially even at six of eleven cases resulting in capitulation.

99. In cases with a million users or fewer, or for which user data was not available, only two out of six resulted in capitulation.

100. Some discrepancies between outcomes for a given product characteristic might be explained by company characteristics, as discussed below.

101. Eight of nineteen cases involved such a term.

102. In eight of the nine cases the firm capitulated; in the one non-capitulation case the firm attempted to address the issue without changing the term.
tractual right.103 News bias and misunderstanding may also contribute to the term’s frequent appearance. News outlets may realize that stories on certain terms will resonate more with consumers, or that presenting a story a particular way will do so (such as companies forcing users to give the company a royalty-free license to the users’ content versus companies finding ways to promote their users’ content without being sued for infringement), which could lead them to focus more on such terms in their stories.104 It is also possible that consumers simply do not understand how the term is being used—oftentimes, terms have a functional purpose that is lost on consumers (for example, allowing the software or service to operate smoothly without infringing users’ rights to their content).

Terms affecting privacy and data collection were relatively common in the case studies.105 Online privacy has become a hot-button issue,106 leading news outlets to cover terms related to it more often than other terms.107 Incidents involving privacy and data collection terms did not frequently result in capitulation.108 Some of these terms involved data collection for financial gain by firms. Because modifying such a term would adversely impact firms’ revenue, firms were more likely to resist changing them. This is discussed in more detail below.

103. Many of the news articles on these terms focused on the idea of ownership, despite the fact that the terms ex ante generally made it clear that consumers retained ownership—for example, Google Chrome EULA Claims Ownership of Everything You Create on Chrome, From Blog Posts to Emails, Gizmodo (Sept. 3 2008), http://gizmodo.com/5044871/google-chrome-eula-claims-ownership-of-everything-you-create-on-chrome-from-blog-posts-to-emails. The endowment effect, as applied to user generated content, might help explain the reaction to this particular term. See generally Russel Korobkin, The Endowment Effect and Legal Analysis, 97 NW. L. Rev. 1227 (2003).


105. Three cases involved terms covering what companies could do with users’s data.

106. That there are now law textbooks on information privacy tends to suggest this. See, e.g., Mark Rotenberg & Daniel Solove, Information Privacy Law (1st ed. 2003).

107. Though difficult to prove, privacy terms are surely in the news more often than, for example, those affecting what theories of liability are disclaimed. A quick Google News search of “privacy” yields 23,000 results, while searches for “disclaim liability” (without quotes) yields only around 150 results, many of which are actual legal documents instead of news stories.

108. In only one of three incidents the company capitulated; in another incident the company addressed the issue but did not change the term.
Terms related to a firm’s revenue were unlikely to be changed. The term in Hellgate: London, for example, involved in-game advertisements. The firm may have been less inclined to modify the term (and corresponding program functionality) due to the lost revenue the change would entail. Similarly, the penalty clause in School Check IN remained unchanged. Licensing and ownership terms, by contrast, typically disclaim a license for commercial use and exist to ensure the company can actually provide functionality given user submitted content. In such cases, money is not the issue so much as the functionality of the product in the wake of potentially unclear legal standards; firms might be more flexible in modifying the term in such circumstances.

Whether the term was new or recently updated was also important. Many cases involved such terms; of these, almost all resulted in the company capitulating or at least addressing the issue. For non-new terms, the capitulation rate was lower. Much like the introduction of a new product, it would appear that consumers are more likely to read terms when the terms are or appear to be first introduced. In fact, almost every case either involved a new or updated term or product, and the rate of capitulation for this group was much higher than for the group where neither the product nor the terms were new or updated. While this presents additional problems for firms when introducing a new product and

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109. Four cases involved such terms, and in each case the firm capitulated.
110. See infra notes 212–18 and accompanying text.
111. See infra note 170 and accompanying text.
112. For example, the term involved in the Facebook incident. See infra note 157.
113. Twelve cases involved updated terms; nine resulted in capitulation, and in another two cases the firm at least addressed the issue. In one case (AOL), a notice was placed saying the terms were updated, even though they had not in fact been; since people thought the terms had been updated, the effect was the same (and AOL eventually capitulated to criticism of its terms). See infra notes 250–56 and accompanying text.
114. Three of six cases. Of these six, three involved products were either newly updated or had recently been introduced into a much broader public spotlight (Octoshape), and of those three two resulted in capitulation. See infra Appendix.
115. There will of course be some overlap between the data for new products and new terms. But new terms may be more predictive of when a firm comes under attack, to the extent terms can be updated without a product update, and product updates do not always involve updated terms.
116. Fourteen of eighteen cases involved either terms or products that were new or recently updated. Of these fourteen, eleven resulted in capitulation. Of the four cases not in this group, only one (Google Docs) resulted in capitulation. See infra notes 219–24 and accompanying text.
corresponding agreement (even if the agreement is being reused from another product) or when publicly updating their terms, it suggests there is significantly less risk once the initial wave of consumer inspection abates. The continued use of the product under the applicable terms may make consumers less wary of them when an issue arises—having used the product with the terms for so long already, consumers are satisfied with the status quo.  

Thus, certain terms that resonate with consumers or that consumers can more readily comprehend get more attention. For example, Microsoft, which ended up capitulating on numerous terms, did not capitulate regarding disclosure of benchmarking results, a term that the average user of Windows likely does not care about. Terms with an immediate financial impact are more resistant to change. Such terms are more likely to have been specifically added in (rather than merely being boilerplate), giving the term particular import for the firm. Even if the term is recycled boilerplate, a corporation will be less inclined to change the term when it has a clear negative financial impact. Finally, new or updated terms, like new products, tend to be more prone to attack, and firms frequently capitulate in such instances.

D. News Factors

As discussed in Part I, improved information flow online should increase the effectiveness of the reputational discipline mechanism. One way to test this hypothesis is to estimate the amount of press the incident has received from news outlets and blogs: Are these incidents generating a significant amount of news? Is there any relation between the amount of news and whether a firm capitulates? This section will start by analyzing data gathered using Google News and Google Blog Search. Both of these resources provide a way to measure the amount of press an incident receives by searching for articles with certain keywords over a given timeframe; however, the methods are somewhat imprecise, making the data suitable only for a rough estimate of the size of the reaction.


118. See infra notes 234–37 and accompanying text.

119. As in the case with Flagship Studios. See infra notes 212–18 and accompanying text.

120. Searching these sites for a company’s name in combination with its EULA or terms of use can generate significant false positives. Many thousands of
One might expect that some minimum number of websites providing negative press would be necessary to cause a company to capitulate, with the exact number perhaps depending on the size of the company. The results suggest otherwise. While incidents that did not result in capitulation had very little press, in many cases, even if there was a fairly small amount of press, the company capitulated. Thus, after a certain point (usually a handful of small news stories that help get the issue picked up by a bigger outlet), the quantity of press a company receives about an issue is not so important. Rather than suggesting a sliding scale for company size and the number of news sites required for capitulation, then, the results suggest that even large firms cannot tolerate a fairly small amount of negative news coverage if it comes from the right source. For example, Adobe and Microsoft, both relatively large companies, capitulated with regard to Photoshop Express and Passport respectively, despite only receiving a small amount of press. What is more important is where the news was reported.

Assuming this is the case, what makes a particular source’s news more effective at causing a firm to capitulate? The quality of the source can be measured objectively or subjectively. This Note results can be returned for certain incidents (such as Facebook’s terms of use), making it impossible to filter through the results manually. Nor does either of these sources necessarily cover every news or blog posting made on the Internet. The results may therefore be under and over inclusive, though in some cases the number of false positives suggest it may be more over inclusive than under inclusive.

121. Out of the six incidents that did not result in capitulation, the most news hits for a given incident was three, and the most blog hits was only seventy-two.

122. Out of the twelve incidents that did result in capitulation, many had only a small number of combined ex ante news and blog hits.

123. This may undermine the assumption that large firms will be induced to greater reputation-protecting efforts merely because the large consumer base means information will spread among them more rapidly. Cf. Bar-Isaac & Tadelis, supra note 43, at 312–13.

124. See infra notes 205–11 and accompanying text.

125. See infra note 263–67 and accompanying text.

126. A counterargument could be made given the Facebook case, infra notes 157–58 and accompanying text. In that case, as news about the incident grew more or less exponentially, Facebook’s response escalated from a statement clarifying the terms to a reversion to prior terms. The decision to revert the terms was made only after there was a very, very large amount of news coverage. At the same time, however, the entire event occurred in a matter of days; Facebook’s reaction to the news coverage might have been lagging behind the incredibly fast rate at which news about the issue was spreading. It is also possible that the source of the news, The Consumerist, was a particularly appropriate site to launch the story, creating conditions sufficient to cause Facebook to change its terms.
attempts to measure objective quality by determining how highly trafficked the original website covering the issue was.\textsuperscript{127} Cases are divided into two categories: those whose original source has a current Alexa rank above 10,000, and those whose original source has a rank below 10,000. Cases were divided nearly evenly into the two categories.\textsuperscript{128} The data show that those cases where the source news site had an Alexa rank above 10,000 were more likely to result in capitulation than those where the site had a rank below.\textsuperscript{129} The data, though limited, support the idea that the better trafficked the site is, the more likely the issue is to catch on and potentially result in capitulation. But even low traffic sites can be very important if the traffic is centered on a target consumer group. With Bioware, for example, there was relatively little news coverage of the issue, but it was discussed extensively in the user forums on the company website, reaching a core demand component of the product.\textsuperscript{130} This can be contrasted with the Scribblenauts and Grand Theft Auto incidents,\textsuperscript{131} which did not generate a large amount of news, were not posted in specialized forums, and did little to influence the firm. News from professional blogs such as ZDNet also seems to carry disproportionate weight.\textsuperscript{132} Such sites may, over time, come to be known as reliable sources of such news, and articles posted there may carry more weight than those posted on a personal blog.\textsuperscript{133} The evidence regarding watchdog sites also seems to support this. A story from \textit{The Consumerist} led Facebook to change its terms, but stories from lesser-known watchdog sites, in particular those that specifically focus on standard form contracts, tended not to catch

\textsuperscript{127} One could argue that this measure is simply another indicator of the quantity of news the issue received. In some ways it is. But this Note posits that even if the total number of users is the same whether a hundred small blogs cover an issue or the \textit{New York Times} covers an issue, readers’ reaction to the news may be different based on who reports the news.

\textsuperscript{128} Eight and ten cases respectively. Alexa data was not available for one case.

\textsuperscript{129} Data were available for seventeen of eighteen cases. Eight of eighteen were above the 10,000 rank, and, of these, six resulted in change and one other at least addressed the issue. Ten of eighteen were below the 10,000 rank, and, of these, only five resulted in change, with one other company at least addressing the issue.

\textsuperscript{130} See infra notes 257–62 and accompanying text.

\textsuperscript{131} See infra notes 152, 199 and accompanying text.

\textsuperscript{132} For example the Google Docs incident, infra note 219 and accompanying text, or the Microsoft incident, infra note 226 and accompanying text.

\textsuperscript{133} Becher & Zarsky, supra note 5, at 333–35, 337–38,
This may tend to validate concerns others have raised about the effectiveness of watchdog groups in this context. That the quality of press seemed to matter more than the quantity still supports the idea that online information flow enables this mechanism to work: smaller, target groups of consumers can become more be connected and informed using the Internet than they might otherwise. In short, online information flows are helping the most relevant groups become informed as to contract terms.

When firms do respond to such consumer action, they tend to do so very quickly: resolution typically happens one to seven days after the initial incident. For example, in the Google Chrome case, the incident was resolved in a day, while news about the incidents continued for some time after capitulation. Firms may try to deal with such issues quickly to prevent a potentially large public relations problem (with much greater reputational cost) later on. Acting quickly also ensures that the press the issue receives will be more about how the term has changed as opposed to how bad the term is. Capitulating too soon has its own problems, however: if the issue would not have ended up catching on with many consumers, then the firm generated unnecessary additional bad press by changing the term and putting itself back in the spotlight. Compounding the issue is a potential lack of real-time information about how large the issue has become. Balancing these costs can make a decision to capitulate very difficult. In the wake of such information disparities, firms might hedge by capitulating immediately, taking a

134. For example, one watchdog group, The Small Print Project (reasonableagreement.org), did not appear to have any stories catch on and lead to the terms being changed. In fact, the site appears to have published a story on the same terms involved in the Facebook case, two years before The Consumerist picked up the issue, but the story did not catch on until The Consumerist published essentially the same story. See Are Facebook’s Terms of Service Fair?, THE SMALL PRINT PROJECT (Oct. 29, 2007), http://smallprint.netzoo.net/facebook-terms-of-service/. This is not to say watchdog groups are not effective, only that by themselves they may be insufficient.

135. See, e.g., Becher & Zarsky, supra note 5, at 344 n.182.

136. Instances where there is a longer lag time between the initial incident and the firm’s response often have an alternate explanation, such as procedural hurdles related to product development. For Vista, Neverwinter Nights, and OpenSuse, for example, each addressed the issue when a new version of the product was released, which took longer than a week. See infra notes 229 (Vista), 261 (Neverwinter Nights), 197 (OpenSUSE) and accompanying text. Since the product was not yet necessarily on sale, arguably little in hard economic value was lost due to the delay in rectifying the issue.

137. See infra note 191 and accompanying text; see also Table 4, infra.
III. IMPLICATIONS

A. Effects on Theory

In theory, the online environment helps consumers to level the playing field for standard form terms. The question is to what extent the reputation-based mechanism can make this so. The effectiveness of the mechanism can be measured by both the quality and the quantity of the changes that online consumers were able to achieve. Quality can be measured by whether the change actually made the term more consumer-friendly. Determining whether this is the case can be difficult. First, consumers might mistake how “bad” the term is on its face. For example, terms involving licensing provisions were often misinterpreted, as they became news. The result is that a term that was not so consumer-unfriendly gets changed, possibly for the worse, when efforts instead could have focused on less friendly terms in the contract. One must also consider the net effects the change has: a firm could, for example, offer any number of friendly terms, but this might make the price of the product prohibitively expensive, creating an inefficient outcome. This determination is particularly difficult, however, since terms other than warranty may be impossible to price and many of the products and services in the cases have no price at all. One alternative would simply be to ask whether the consumers got what they wanted, regardless of whether the term becomes objectively better or worse. In some cases, the consumers did not get what they wanted despite a response by the firm: Bioware and Dropbox both addressed consumer concerns but did so incompletely. In other instances the term was removed, but many aspects of what made the term undesirable to consumers were simply dispersed to other areas of the agreement, as happened in the AOL Instant Messenger case. In such instances, even though a change is registered, the quality of the change is not particularly high, as only the form of the term has changed.

138. Cf. Gillette, supra note 24, at 713–14 (noting that judges might not be able to make such distinctions; if judges are unable to, consumers may not be able to either).

139. See infra notes 179, 262 and accompanying text.

140. See infra note 256 and accompanying text.
Even assuming quality changes, however, a certain minimum quantity of changes would be required for this mechanism to have an impact. On the one hand, given the cases found for this Note, the number of successful attempts to change terms appears relatively small. On the other hand, a given change may have effects beyond the standard form contract in question. Smaller companies in the software industry tend to copy form contracts from larger, more established players.141 Thus if a large, established player’s contract changes, newer and smaller firms may follow suit.142 For example, subsequent to the Facebook incident, Twitter modified a nearly identical term in its agreement.143 These types of changes suggest the incidents covered by the cases have effects on terms beyond the cases themselves. Apart from traditional ideas of network effects associated with using common terms,144 such changes by smaller players may reflect a cognitive bias known as the availability heuristic—firms essentially are overreacting to protect themselves from rare but prominent incidents.145

Thus, even if there are not too many high profile changes, and even if the changes themselves are not always what consumers wanted, the net effects may be fairly large and favorable to consumers. Though not likely to revolutionize the online business-to-consumer form contracting landscape, these incidents may hold promise as a mechanism for disciplining firms regarding the terms they offer in online business-to-consumer standard form contracts.

141. Cf. Hillman & Rachlinski, supra note 5, at 439 (“Less experienced businesses simply copy their senior counterparts.”). For example, Twitter’s terms of service were “inspired” by Flickr’s. See Previous Terms of Service, Twitter, https://twitter.com/tos_archive/version_1 (last visited Mar. 2, 2011). Apple also may have followed Microsoft regarding virtualization terms in the EULA for its operating system. See Jeremy Reimer, Apple’s Leopard Server EULA moves closer to Microsoft’s virtual abilities, ARS TECHNICIA, http://arstechnica.com/apple/news/2007/11/apples-leopard-server-eula-moves-closer-to-microsofts-virtual-abilities.ars (last updated Nov. 4, 2007). It can be argued, however, that smaller players may see large, salient firms get punished for adopting certain terms and attempt to use those same terms to get a competitive advantage—the large, well known company cannot get away with such terms, but perhaps the smaller company can do so unnoticed. That said, any competitive advantage from using the term that the large company cannot is likely outweighed by the risk of being found using the term, especially after the term has already been in the news.


144. See Kahan & Klausner, supra note 10, 719–27.

B. Effects on Practice

The results should be useful to both firms and consumer advocates. Understanding what causes a product’s standard form contract to come under attack could be invaluable to a firm, given the costs of such reputation attacks. This is particularly true given the apparent frequency with which new products’ agreements are subject to attack; preventing such negative consumer feedback can help ensure the success of a major product launch. One lesson in particular appears to be that certain types of terms (or wording of terms) should be avoided. For example, firms should be less inclined to include licensing or ownership terms worded like those from Google Chrome, given the frequency with which they present issues. Making changes proactively and responding to issues quickly are strategies a firm can take to reduce its chances of being attacked and mitigate any attacks that do happen.

From the consumer advocate perspective, the results provide useful information on how to fight a particular type of licensing practice. The cases suggest that the most effective way to change a term would be to target a large, established firm and engage it as it releases a new version of its product or standard form contract. In addition, presenting the controversial term as something lay consumers can readily relate to, such as a story about losing ownership of their work or selling their privacy for money, would be conducive to reaching consumers. Finally, submitting the story to highly trafficked sites such as ZDNet, The Consumerist, orSlashdot helps get the story out to many users. By contrast, attempting to change a term that has been around for some time, or one accompanying a longstanding product, or submitting the story only to a watchdog site, may be less likely to succeed. Taking into account these factors when designing a strategy to force a change in a firm’s terms might significantly increase the chances that the effort will succeed.

C. Regulatory Suggestions

Many have called for the regulation of the contents of standard form contracts. But the fast rate of innovation in online products and their contracts (to the extent they address new features of the product) can make effective regulation of online standard form contracts impractical.

146. See, e.g., infra note 188.

147. Many such suggestions are contained in a 2006 symposium on boilerplate sponsored by Michigan Law Review. For a review of some of these suggestions, see Todd Rakoff, The Law and Sociology of Boilerplate, 104 Mich. L. Rev. 1255, 1242–46 (2006).
contracts difficult.148 Some have suggested that there is less need to regulate the terms of online standard form contracts due to improved consumer power.149 The survey of case studies in this Note does not necessarily contradict this—online communication does help consumers engage firms in ways that they could not before.

But targeted regulation could still be useful to address the imperfections of the mechanism. One issue is getting firms to listen to consumers—while it has been shown that a fairly small amount of news coverage from the right sources can be sufficient, many legitimate complaints undoubtedly go unheard. Further, when firms do listen to consumers, the quality of changes they make are not always ideal—sometimes the firm appears to have changed the contract, but not the term at issue, or the term itself was removed still exists in another form elsewhere in the contract.150 Both of these issues might be solved if consumers could register complaints about terms with an agency capable of objectively evaluating them. If the terms met a certain threshold of unfairness,151 the agency could publicly request that the firm review the term. If such requests are highly visible then the agency action could carry more reputational sanctions than mere news articles while still retaining some semblance of a market-based solution.

CONCLUSION

This Note has shown how consumers use the Internet to raise awareness of unfavorable terms in online standard form contracts and pressure firms into changing these terms. Through case studies it finds that older and larger firms are more likely to capitulate, that new or recently updated products or terms are more likely to lead to capitulation, that the type of term involved matters, and that the original source of the news may be at least as important as how much news an issue receives overall. Given these findings, the Note has attempted to gauge the effectiveness of the mechanism, provide

148. See, e.g., Becher & Zarsky, supra note 5, at 343 n.176 and accompanying text.
149. Id. at 344. But see Hillman & Rachlinski, supra note 5, at 495 (“Although some may argue that the electronic environment gives consumers more opportunity to protect themselves, as our analysis shows, this new power is easily overstated.”).
150. Such as the AOL case, infra notes 256.
151. It is beyond the scope of this brief proposal to flesh out a standard in detail, but it may be easiest to model it on unconscionability. See generally Richard Lord et al., Williston on Contracts § 18 (4th ed. 2010); 15 U.S.C. § 45(n) (2006) (discussing Federal Trade Commission unfair practices jurisdiction).
guidance on how firms and consumers should respond to these effects, and suggest ways to improve the mechanism through regulation.
APPENDIX

A. Case Studies

This section of the Appendix contains brief summaries of each of the case studies in reverse chronological order.

5th Cell Scribblenauts

Scribblenauts is a game for the Nintendo DS that became immensely popular after it was released.152 The game was developed by 5th Cell, a fairly young game company, on September 15, 2009.153 Days after the game’s release, a blogger on a low-traffic site posted an unfavorable article about the EULA’s terms on ownership, copying, and reverse engineering.154 The primary concern of the blog post was ownership of the game, despite the fact that it is common practice to license, not sell, software, including games.155 The story did not receive much subsequent attention, however, and the EULA did not change.156

Facebook

On February 4, 2009, Facebook updated its terms of service by removing a clause stating that its license for users’ content would expire upon the user removing the content from Facebook.157 The Consumerist, an online consumer-rights website, criticized the

152. See Matt Matthews, NPD: Behind the Numbers, January 2010, GAMESUTRA (Feb. 15, 2010), http://www.gamasutra.com/view/feature/4275/npd_behind_the_numbers_january_.php?page=3 (Scribblenauts was one of the top five games for its platform the year it was released).
155. See, e.g., Vernor v. Autodesk, 621 F.3d 1102, 1111 (9th Cir. 2010).
156. You Don’t Own Scribblenauts, supra note 154.
157. See The Facebook Blog, FACEBOOK (Feb. 4, 2009), http://blog.facebook.com/blog.php?post=5031412130. Most relevantly, Facebook removed the italicized language from its terms:

You hereby grant Facebook an irrevocable, perpetual, non-exclusive, transferable, fully paid, worldwide license (with the right to sublicense) to (a) use, copy, publish, stream, store, retain, publicly perform or display, transmit, scan, reformat, modify, edit, frame, translate, excerpt, adapt, create derivative works and distribute (through multiple tiers), any User Content you (i) Post on or in connection with the Facebook Service or the promotion thereof subject only to your privacy settings or (ii) enable a user to Post . . . . You may remove your User Content from the Site at any time. If you choose to remove your User Content, the license granted above will automatically expire, however you acknowledge that the Company may retain archived copies of your User Content.
change on its website two weeks later. The following day, Mark Zuckerberg, CEO of Facebook, wrote an explanation of the term on the company’s website. But many other blogs and news sites, including the New York Times, continued to cover the issue, similarly casting a negative light on the change. On February 18, three days after the Consumerist article, Facebook reverted to its previous terms and stated its intention to rewrite the terms entirely.

Octoshape

Octoshape is a small and fairly young software company that helps other companies provide streaming video to online users. CNN used Octoshape to stream the 2009 inauguration of President Obama. A blog post from February 5, 2009, approximately two weeks after the inauguration, mentioned a number of issues with the program, in particular that the EULA purportedly limited...


users’ access to their own data log files. But many of the stories only covered the way the EULA was presented when viewers used Octoshape through CNN, as opposed to the actual terms of the EULA; others did not even mention the EULA and instead just discussed the invasive nature of the software CNN had chosen to use. Thus, there was relatively little direct coverage of Octoshape and its EULA, and Octoshape did not change its terms.

School Check IN

School Check IN is a small company that makes relatively inexpensive security software for schools. The company has been around since at least 2002. The license agreement for the company’s software contains a damages section, which has a two million dollar penalty clause if the licensee breaches the EULA. InfoWorld, a reasonably large and established tech news site, ran an article the day that CNN began streaming video. The article was titled “CNN P2P Video Streaming Tech Raises Questions.” CNN P2P Video Streaming Tech Raises Questions, ARS TECHNICA (Feb. 10, 2009), http://arstechnica.com/web/news/2009/02/cnn-p2p-video-streaming-tech-raises-questions.ars; CmdrTaco, CNN Uses P2P Video & Adds Terrible EULA, SLASHDOT (Feb. 5, 2009, 10:43 AM), http://tech.slashdot.org/article.pl?sid=09/02/05/1443206.

164. Brian Livingston, Watch a Live Video, Share Your PC with CNN, WINDOWS SECRETS (Feb. 5, 2009), http://windowssecrets.com/2009/02/05/01-Watch-a-live-video-share-your-PC-with-CNN/?n=story1. The term in question reads as follows:

You may not collect any information about communication in the network of computers that are operating the Software or about the other users of the Software by monitoring, interdicting or intercepting any process of the Software. Octoshape recognizes that firewalls and anti-virus applications can collect such information, in which case you not are allowed to use or distribute such information.

Id.


article criticizing the term on December 9th, 2008. The story was picked up by some blogs but did not attract much attention overall. School Check IN was unresponsive to the InfoWorld writer and the blog posts, and the company ended up leaving the term intact.

**Dropbox**

Dropbox is a startup company that provides free online storage space. Users sign up and, after agreeing to a EULA, can store files and share them with others. The Dropbox EULA gave the company a “non-exclusive, worldwide, royalty-free, sublicensable, perpetual and irrevocable right and license to use and exploit” files stored in users’ Public and Shared folders. On September 16th, 2008, approximately one week after Dropbox was released, a Dropbox user made a critical post about the term on a low-traffic blog. The blog post was soon being discussed on the Dropbox forums. By January 2009, the terms were updated with respect to Shared folders but remained the same for Public folders. Users continued to complain, and though Dropbox mentioned it would change the term for Public folders, it had not done so by the time of this writing.

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173. See Wood, supra note 171; School Check IN End User Agreement, supra note 170.


178. Id.

179. Id.; *Dropbox Terms of Service*, supra note 175.
Mozilla Firefox

Mozilla produces a popular open-source web browser called Firefox.180 Though Mozilla had existed as a branch of Netscape since 1998, it did not begin independently developing Firefox until 2003.181 In June 2008, Mozilla released Firefox 3.0 for Ubuntu, a Linux-based computer operating system.182 Shortly thereafter, on September 13, 2008, Mozilla started requiring users of Ubuntu to view a EULA before using Firefox.183 An Ubuntu user filed a “bug report” about the existence of the EULA, and over the next few days, the story made it to a variety of tech-oriented news outlets.184 Mozilla stated it would update its license agreement,185 and the EULA now tracks the less restrictive Mozilla Public License.186

Google Chrome

Google Chrome is a web browser that was released on September 2, 2008.187 The EULA supplied with Chrome contained a clause that gave Google a license to reproduce Chrome users’ content submitted over the Internet.188 Almost immediately after Chrome was

188. The term read:
§ 11.1 You retain copyright and any other rights you already hold in Content which you submit, post or display on or through, the Services. By submitting, posting or displaying the content you give Google a perpetual, irrevocable, worldwide, royalty-free, and non-exclusive license to reproduce, adapt, modify, translate, publish, publicly perform, publicly display and distribute any Content which you submit, post or display on or through, the Services. This
released, a writer at CNET and an independent blogger both posted stories about the licensing provision.\textsuperscript{189} The stories caught on and received a large amount of attention.\textsuperscript{190} Google issued a press release before the end of the next day saying the term would be removed from the license agreement and had been included accidentally.\textsuperscript{191}

\textit{Novell OpenSUSE}

In May 2008 Novell, a large and venerable software company, released a beta version of its open source operating system, OpenSUSE.\textsuperscript{192} This new version of the operating system required users to agree to a EULA for the first time.\textsuperscript{193} On June 4, 2008, an OpenSUSE user wrote a post that was critical of the EULA on a low-traffic blog.\textsuperscript{194} The blog post was picked up by Slashdot\textsuperscript{195} as well as at

\begin{quote}
license is for the sole purpose of enabling Google to display, distribute and promote the Services and may be revoked for certain Services as defined in the Additional Terms of those Services.
\end{quote}


least one other, smaller news site. Novell removed its new EULA in a later version of the software, about six months after the initial controversy, and replaced it with the EULA for Fedora, another open source operating system. Novell did not require users to agree to the new EULA before installation—it was to be merely a “license notice” to make users “aware of their rights.”

**Rockstar Games’ Grand Theft Auto IV (GTA IV)**

Grand Theft Auto is an extremely successful and controversial game franchise produced by Rockstar Games. In April 2008, Rockstar released the latest version of the franchise, Grand Theft Auto IV. The EULA for the game contained a number of standard provisions, including one prohibiting public performance of the game. Notice about the public performance clause appeared each time the user loaded the game. On December 17th, 2008, some eight months after the game was released, a blogger on a low traffic site took issue with the public performance clause. The issue apparently did not generate any other stories, and Rockstar did not change the term in response to the story.

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202. *Id.*

203. *Id.*

204. Only one other complaint was found about the issue. See Janner51, comment to *Take 2 Removed My Gameplay from YouTube*, GAMEFAQS (Dec. 29, 2008, 3:26 AM), http://www.gamefaqs.com/boards/genmessage.php?board=952150&topic=47362723. The terms have changed as of November 2010, but there is no sign that
Adobe Photoshop Express

Adobe is a large software company that develops a very popular line of image editing software called Photoshop. On March 26, 2008, the company released a beta test of Photoshop Express, a free online version of Photoshop. That same day, CNET reviewed the program and noted an issue with the terms of service. The term gave Adobe a license to display the content, likely necessary for functionality of the software, and to use the content in any other format in the future. A representative of Adobe responded in a blog post the next day, promising the terms of service would be changed. In the following days, a number of fairly prominent technology news sites picked up on the issue, including the Washington Post. A week after the initial issue was raised, Adobe officially changed the clause.

they changed in response to the incident described above. Rockstar and its parent company Take Two did not respond to questions about the EULA.


207. Lori Grunin, Review: Adobe Photoshop Express Beta, CNET NEWS (Mar. 26, 2008, 9:02 PM), http://news.cnet.com/8301-17939_109-9904311-2.html. The original posting on Adobe’s web forum was not readily available, but the term read: Use of Your Content. Adobe does not claim ownership of Your Content. However, with respect to Your Content that you submit or make available for inclusion on publicly accessible areas of the Services, you grant Adobe a worldwide, royalty-free, nonexclusive, perpetual, irrevocable, and fully sublicensable license to use, distribute, derive revenue or other remuneration from, reproduce, modify, adapt, publish, translate, publicly perform and publicly display such Content (in whole or in part) and to incorporate such Content into other Materials or works in any format or medium now known or later developed.

208. Id.


211. See Chris Foresman, Adobe Gives Photoshop Express EULA a Much-Needed Revamp, ARS TECHNICA (April 7, 2008, 8:20 PM), http://arstechnica.com/old/content/2008/04/adobe-gives-photoshop-express-eula-a-much-needed-revamp.ars
Flagship Studios’ Hellgate London

Flagship Studios was a young software company preparing to release its first game, Hellgate London, on October 31, 2007.212 Shortly before the game’s release, Flagship Studios released a demo version that came with a EULA.213 The EULA contained a data collection policy that would be used in part to provide targeted in-game advertisements.214 A small blog called Blue’s News ran a story criticizing the term,215 and news about the term spread quickly.216 But even though the issue was picked up by some news outlets, Flagship Studios did not change the term. The company’s only response was to provide an explanation for the term on its website for


214. The term read:
You agree that EA, its affiliates, and each Related Party may collect, use, store and transmit technical and related information that identifies your computer, including without limitation your Internet Protocol address, operating system, application software and peripheral hardware, that may be gathered periodically to facilitate the provision of software updates, dynamically served content, product support and other services to you, including online play. EA and/or the Related Parties may also use this information in the aggregate and, in a form which does not personally identify you, to improve our products and services and we may share that aggregate data with our third party service providers.

Hellgate London EULA Ruckus, STROPP’S WORLD (Oct. 19, 2007), http://stroppsworld.com/2007/10/19/hellgate-london-eula-ruckus/. Note EA (Electronic Arts) is mentioned as EA delivers the advertising content.


a brief period of time. Flagship Studios went out of business the next year.

Google Docs

Google Docs is an online document editing and storage service. On August 28, 2007, nearly a year after Google Docs was made available to the public, ZDNet ran a story about the terms of service. ZDNet focused on a term that gave Google a license to use user-submitted content to “display[ ], distribut[e], and promot[e]” Google services. Google responded by stating that it did not own users’ content but needed the terms to ensure the functionality of the service. Users remained concerned despite Google’s assertions. Google ended up rewriting the terms to clarify that its license to the content was for the service’s functionality.
Microsoft Vista

Microsoft was set to release Windows Vista, the latest version of its flagship operating system, in early 2007. On October 11, 2006, while the operating system was available for testing, ZDNet published a story about the EULA’s restriction on users’ ability to transfer the license to a different computer. A number of other sites picked up on this provision, but consumer feedback may have been limited as only the retail license was involved. Microsoft nonetheless responded weeks later by loosening the restriction, stating its intent had been to combat piracy and calling the change a mere “clarification.”

Around the same time, other news and blog writers took issue with a separate clause that prevented “virtualizing” Windows Vista (running the operating system within another operating system). Microsoft came close to removing the restriction in June 2007, but


Before you use the software under a license, you must assign that license to one device (physical hardware system). That device is the “licensed device.” A hardware partition or blade is considered to be a separate device.

a. Licensed Device. You may install one copy of the software on the licensed device. You may use the software on up to two processors on that device at one time. Except as provided . . . below, you may not use the software on any other device. Id.

228. Most people do not buy retail version; instead they buy the Original Equipment Manufacturer (“OEM”) version. The OEM version comes bundled with the purchase of a new computer. Retail versions of the operating system do not come with the computer; they are typically bought separately from the computer purchase as an upgrade and as a result might intuitively be more transferable. As a result they are far less common. See Ken Fisher, Buying OEM Versions of Windows Vista: The Facts, ARS TECHNICA (Jan. 30, 2007, 9:39 AM), http://arstechnica.com/hardware/news/2007/01/8730.ars.


You may uninstall the software and install it on another device for your use. You may not do so to share this license between devices. Id.

ended up deciding to maintain the status quo, generating additional bad press. Eventually, more than a year after the original issue arose, Microsoft did change the term. The change coincided with a conference Microsoft held on its virtualization technology.

A third EULA term involving censorship of benchmark results also generated press. Benchmarking allows a user to see how well their computer performs while running a program; in this case, benchmark results for Vista could be compared with other operating systems to see which was fastest. The censorship term in the Vista EULA prevented users from disclosing benchmarking results for the operating system except under certain conditions. The issue received relatively little press, perhaps in part because the term was not too restrictive and may have only been of interest to hardcore PC enthusiasts. The term still exists in the current EULA for Vista.


233. *Id.*


235. The term reads:

9. MICROSOFT.NET BENCHMARK TESTING. The software includes one or more components of the .NET Framework 3.0 (".NET Components"). You may conduct internal benchmark testing of those components. You may disclose the results of any benchmark test of those components, provided that you comply with the conditions set forth at http://go.microsoft/fwlink/?LinkId=66406. Microsoft Software License Terms, MICROSOFT, http://download.microsoft.com/download/A/7/A/7A7A8F5-9066-41CO-87B8-7DEC628974B8/MSDN_EULA.pdf (last visited Mar. 8, 2011).

236. Subsequent coverage of the issue tended to focus on Scott Granneman’s SecurityFocus article, Granneman, *supra* note 230. See, e.g., graben3, Comment to Vista EULA License: Horrible!, UBUNTU FORUMS (May 13, 2008), http://ubuntuforums.org/showthread.php?t=793524.

JaJah Web

JaJah is a relatively small company that sells software for Video-over-IP (VOIP) conferencing. On February 10, 2006, an article appeared on a VOIP-centric news website suggesting JaJah’s EULA enabled it to gather data on its users. The terms in question allowed JaJah to collect data on users’ demographics, interest, and behavior based on any of their activities while using the software. The story was picked up by other websites, including ZDNet. JaJah emailed ZDNet to say it would be changing the terms, and within a matter of days JaJah had largely removed the sections on data usage. The new terms did not explicitly allow the same kind of data collection, but they did not necessarily prevent JaJah from continuing such policies either.

Telestream’s Flip4Mac WMV

Telestream is a relatively small company that produces Flip4MAC WMV, an application for Apple’s OS X operating system that allows users to view videos created with the Windows Media Video codec. On January 14, 2006, two days after the product was made free, a blogger pointed out three issues with the EULA: Telestream could audit the licensee’s use of the software, the licensee had to accept a non-disclosure agreement, and the licensee had to indemnify the licensor for any illegal use of the software by the li-

239. See Mark Hachman, VOIP Startup Isn’t Quite Spyware, but It’s Close, EX-
192	TREMEVoIP (Feb. 10, 2006, 10:49 AM), http://web.archive.org/web/200711219
240. See Russell Shaw, VoIP Service Jajah Changes EULA to Ease Spyware Concerns,
voip-service-jajah-changes-eula-to-ease-spyware-concerns/905.
241. Id.; see also Robin Good, JaJah Is Not Spyware: Company Changes EULA and
Acknowledges Bad Wording, KOLABORA (Feb. 15, 2006), http://www.kolabora.com/
news/2006/02/15/jajah_is_not_spyware_company.htm.
242. See Shaw, supra note 240.
243. Id.
244. Id. As of November 2010 the terms had almost no mention of data col-
lection and retention, stating only that “JAJA warrants the careful use of your
Feb. 21, 2011).
245. See Flip4Mac WMV, TELESTREAM, http://origin.telestream.net/flip4mac-
wmv/overview.htm (last visited Feb. 21, 2011).
The event received a very small amount of press. Telestream does not appear to have provided an official response to the issue, but they did remove the auditing term. The other terms criticized in the blog post remain.

**AOL Instant Messenger**

AOL Instant Messenger is a free instant messaging service that was provided by AOL Time Warner. On March 11, 2005, a Friday, a user of the service mistakenly thought AOL had changed the terms of service and wrote a blog post about the “new” terms he did not like. The blogger specifically took issue with two terms: a content licensing clause that allowed AOL to create derivative works from users’ content, and a term declaring users “waive[d] any right to privacy.” The next day, a Saturday, the story was picked up by a


249. Id.


252. The term in question read: Although you or the owner of the Content retain ownership of all right, title and interest in Content that you post to any AIM Product, AOL owns all right, title and interest in any compilation, collective work or other derivative work created by AOL using or incorporating this Content. In addition, by posting Content on an AIM Product, you grant AOL, its parent, affiliates, subsidiaries, assigns, agents and licensees the irrevocable, perpetual, worldwide right to reproduce, display, perform, distribute, adapt and promote this Content in
prominent technology news site. The following Monday, AOL representatives attempted to clarify the meaning of the term, but AOL soon decided it would simply change its terms of service. The new terms removed the “waive any right to privacy” language and modified the language about user content, but the force and effect of the terms were essentially the same as before.

**BioWare’s Neverwinter Nights**

Neverwinter Nights is a game created by Bioware, a company that at the time of the game’s release was fairly small. On May 18, 2002, while the game was still in the beta phase of development, Bioware released a program that allowed users to create additional content for the game. The program came with a EULA, and, on the same day that the program was released, users began complaining about the terms of the EULA on Bioware’s message boards. Users were particularly concerned with a clause giving Bioware the right to use any medium. You waive any right to privacy. You waive any right to inspect or approve uses of the Content or to be compensated for any such uses.


256. While the “waive any right to privacy” language was completely removed, language about AOL’s control and license to user submitted content remained very similar to before. AIM Terms of Service, supra note 252 (reflecting changed terms of use).


258. The date of release of the development version of the program is based on a download provided for it. See Beta Toolset for Neverwinter Nights, AusGamers (May 18, 2002), http://www.ausgamers.com/files/details/html/2280.
oware rights to any modules users created with the program.259 The reaction was relatively large and intense given the relatively small size of the target consumer group.260 Bioware promised to revise the EULA and directly commented on various news stories on the topic.261 A month later, on the day of the game’s actual release, Bioware published a new EULA, in which the sections on intellectual property rights and user-created work were much longer, but the original terms in controversy remained in almost identical form and with essentially the same effect.262

Microsoft Passport

Microsoft Passport is a service that allows users to log on to a number of other services using a single account.263 In March 2001, Passport was featured prominently in the release of Hailstorm, a set of web-based software development services.264 On April 3, 2001,

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259. For an excerpt of the term, see Sanuj, Mino EULA Concern for Bioware, BioWARE (May 18, 2002, 5:53 PM), http://nwn.bioware.com/forums/viewtopic.html?topic=31518&forum=50&sp=0read. The full term is available by downloading the software at the above footnote. The term reads:

By distributing or permitting the distribution of any of your Modules, you hereby grant back to INFROGRAMES and BIOWARE an irrevocable royalty-free right to use and distribute them by any means. Infogames or BIOWARE may at any time and in its sole discretion revoke your right to make your Modules publicly available.

Beta Toolset for Neverwinter Nights, supra note 258.


262. Compare the language found in note 259 with the following:

If you Distribute, or permit others to Distribute, your Variations [which include modules], you hereby grant back to Infogrames and BioWare an irrevocable royalty-free right to use and distribute such Variations by any means . . . . Infogrames and/or BioWare may at any time and in their sole discretion revoke your right to make your Variations publicly available . . . .
Derek French, NWN EULA Posted Here for All to See, BioWare (June 18, 2002, 5:26 PM), http://nwn.bioware.com/forums/viewtopic.html?topic=46097&forum=58&sp=0.

263. For more information, see Microsoft Passport FAQ, MICROSFOT SUPPORT (Nov. 21, 2006), http://support.microsoft.com/kb/277759.

Slashdot.org published a story criticizing the Passport terms of service. The author of the story took particular issue with a term granting Microsoft a license to content transmitted through the Passport website. The term was intended to allow the site to function, as is often the case with similar terms, and Microsoft quickly changed the terms of service to better reflect this purpose.

B. Tables

The tables are divided into the four factors discussed in Part I.B: company characteristics, product characteristics, term characteristics, and news characteristics. Each table lists the values for each factor for a given case study. When data was not available, a “.” is used. Two additional variables are provided in each table for quick reference to the result of each case:

Addressed Issue: whether the firm attempted to address the issue, either in some sort of announcement or in a partial change in the contract (even if the terms at issue stayed the same). If the company changed the term the way consumers wanted, the company addressed the issue.

Changed: whether the company changed the term at issue in response to consumer action and in the way consumers demanded. Rewordings of a term that kept the overall meaning and effect were not counted as a change. If multiple terms were at issue and at least one changed, this was counted as a change.

Table 1: Company Characteristics

This table contains data for the company-based factors derived in Part I.B. Data for companies were gathered from sources such as SEC filings, Google Finance, D&B, Hoover’s, and news reports. Each company-based factor was evaluated as follows:


Revenue: the annual revenue for the company the year the incident took place, adjusted for inflation using the Bureau of Labor Statistics’s CPI Inflation Calculator.\textsuperscript{272} If a subsidiary offered the product or service, then the revenue of the subsidiary is used unless the parent and subsidiary share the same name and have essentially the same reputational identity. For example, Rockstar Games and its parent, Take-Two, would not be considered the same.

Employees: the number of employees for the year the incident took place. If a subsidiary offered the product or service, then the number of employees of the subsidiary is used instead of the parent, subject to the constraints mentioned in the revenue variable.\textsuperscript{273}

Age: the age of the company in years. Age is based on how long the company was known by the name it had at the time of the incident.\textsuperscript{274} If a company is a subsidiary, its age is used instead of the parent, subject to the constraints mentioned in the revenue variable.

\textsuperscript{269} Google Finance, http://www.google.com/finance (last visited Mar. 9, 2011) (use search box at top-center to search for a company by name or ticker symbol; financial data is available by following the hyperlinks on the left margin of the resulting page).


\textsuperscript{271} Hoover’s, http://www.hoovers.com (last visited Mar. 9, 2011) (a searchable database for businesses and corporations; subscription required).

\textsuperscript{272} U.S. Dep’t of Labor, http://data.bls.gov/cgi-bin/cpicalc.pl (last visited Mar. 9, 2011) (input an amount in the dialog box at the top of the page and choose the years to compare).

\textsuperscript{273} An argument can be made that the subsidiary’s reputation is highly influenced by that of the parent, but for consistency this paper only considers data for the subsidiary. Cf. Ginger Zhe Jin & Phillip Leslie, \textit{Reputational Incentives for Restaurant Hygiene}, 1 AM. ECON. J.: MICROECONOMICS 237 (2009) (finding that restaurant franchise owners tend to free ride on their restaurant chain’s overall reputation).

\textsuperscript{274} As the paper focuses on reputation, it is more concerned with the age of the company’s reputation as opposed to the age of the company itself. Thus the figure used is how long the brand has been in existence, which may even survive mergers and acquisitions.


### Company Characteristics

<table>
<thead>
<tr>
<th>Case</th>
<th>Revenue ( Millions of Dollars)</th>
<th>Employees</th>
<th>Age</th>
<th>Addressed Issue</th>
<th>Changed</th>
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</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>$560,275</td>
<td>850,270</td>
<td>5,277</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Google (Chrome, 2008)</td>
<td>$22,113,278</td>
<td>20,123,279</td>
<td>10,280</td>
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<td>Google (Docs, 2007)</td>
<td>$17,482,281</td>
<td>13,786,282</td>
<td>8,283</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>AOL (Instant Messenger)</td>
<td>$9,264,284</td>
<td>19,006,285</td>
<td>16,280</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mozilla (Firefox)</td>
<td>$79,14,287</td>
<td>192,288</td>
<td>5,289</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


279. *Id.*


<table>
<thead>
<tr>
<th>Case</th>
<th>Revenue (Millions of Addressed Dollars)</th>
<th>Employees</th>
<th>Age</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe (Photoshop Express)</td>
<td>$3,630\textsuperscript{290}</td>
<td>7,335\textsuperscript{291}</td>
<td>25\textsuperscript{292}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Novell (OpenSUSE)</td>
<td>$970.45\textsuperscript{293}</td>
<td>4,006\textsuperscript{294}</td>
<td>25\textsuperscript{295}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>BioWare (Neverwinter Nights)</td>
<td>$15.\textsuperscript{296}</td>
<td>116\textsuperscript{297}</td>
<td>7\textsuperscript{298}</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Octoshape (P2P Video)</td>
<td>.</td>
<td>15\textsuperscript{299}</td>
<td>5\textsuperscript{300}</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Flagship Studios (Hellgate London)</td>
<td>&lt; $22,500,000\textsuperscript{301}</td>
<td>28\textsuperscript{302}</td>
<td>5\textsuperscript{303}</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>


\textsuperscript{293.} Novell, Inc., Annual Report (Form 10-K) (Oct. 31, 2008).

\textsuperscript{294.} Id.


\textsuperscript{296.} $11.93 for 2003. This was calculated based on revenue of $16.3M CAD in 2003. See Rick Westhead, The Golden Age for Game Developers; Business Booming for Canadian Game Companies, TORONTO STAR, Nov. 7, 2004, at C03. It was converted to USD using the .732 CAD-USD exchange rate on June 1st, 2003. http://www.oanda.com/currency/historical-rates/ (enter appropriate dates and currencies to see the historical exchange rates). It was then adjusted for inflation in 2011 (rounded up), along with the other revenue figures.

\textsuperscript{297.} Tom Keyser, The Force Is with These Game Boys, BUS. EDGE, (Dec. 13, 2001), http://www.businessedge.ca/archives/article.cfm/the-force-is-with-these-game-boys-1260; Rachel Ross, Not Playing Around Canadian Game Developer Wins Star Wars; At Alberta’s Bioware, a Leading Developer of Video Games, It Takes Fun to Get the Job Done. But the Bottom Line Is This Is a Serious Industry at $6 Billion a Year, TORONTO STAR, Apr. 9, 2001, at C01.


### 2011] CONSUMER-DRIVEN ONLINE CONTRACT CHANGES

<table>
<thead>
<tr>
<th>Case</th>
<th>Revenue (Millions of Dollars)</th>
<th>Employees</th>
<th>Age</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rockstar Games (Grand Theft Auto)</td>
<td>$723.26$ \textsuperscript{304}</td>
<td>900 \textsuperscript{305}</td>
<td>10 \textsuperscript{306}</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Microsoft (Vista, 2007)</td>
<td>$53,847$ \textsuperscript{307}</td>
<td>79,000 \textsuperscript{308}</td>
<td>31 \textsuperscript{309}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Microsoft (Passport, 2001)</td>
<td>$31,201$ \textsuperscript{310}</td>
<td>47,600 \textsuperscript{311}</td>
<td>26 \textsuperscript{312}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Jajah (VOIP)</td>
<td>$30.55$ \textsuperscript{313}</td>
<td>70 \textsuperscript{314}</td>
<td>&lt;1 \textsuperscript{315}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Telestream (Flip4MAC)</td>
<td>$20$ \textsuperscript{316}</td>
<td>100 \textsuperscript{317}</td>
<td>8 \textsuperscript{318}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School Check IN</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dropbox</td>
<td>.</td>
<td>10 \textsuperscript{320}</td>
<td>&lt;1 \textsuperscript{321}</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

308. Id.
311. Id.
312. The History of Microsoft, supra note 309.
314. Id.
315. JAJAH, supra note 238.
317. Id.
320. Resolutions, The DROPBOX BLOG, http://blog.dropbox.com/?m=200901 (last updated Jan. 5, 2009). Admittedly this is not the most scientific count of the company’s size, but it suggests the number of employees was certainly below the average of fifty at the beginning of 2009.
321. Id.
Table 2: Product Characteristics

This table contains data for the product-related factors derived in Part I.B. Data about products were primarily gathered from each company’s website and SEC filings. Each product-based factor was evaluated as follows:

*Users/Sales*: the number of users of the product at the time of the incident or, if that information is unavailable, the total sales of the product at the time of the incident. For incidents that happened at or near the product’s release, data for as short a time period as possible after the release is used (generally one month). This attempts to compensate for the situation in which only a few users have bought or downloaded the product the day it is released, but there is still massive interest in the product. Though this Note only considers incidents originating in the United States, this figure includes worldwide users or sales.

*New/Updated*: whether the incident affecting the product in question started when the product was either in pre-release or within a month of release.

*Flagship Product*: whether the product in question had the highest revenue for the company or, lacking such data, was the one the company considered its most important product during the year of the controversy.

*Free*: whether the product or service was offered for free.

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325. Revenue per product was not always available, but a company’s classification of its flagship product almost always was. There is a potential for bias if the company falsely depicts its flagship product to boost sales. Another possible method would have involved a product’s sales rank on Amazon, see Florencia Marotta-Wurgler, *Competition and the Quality of Standard Form Contracts: The Case of Software License Agreements*, 5 J. EMP. L. STUD. 447, 450 (2008), but unfortunately not every case involved a product sold on Amazon.
Product Characteristics

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Flagship</th>
<th>New/Updated</th>
<th>Free</th>
<th>Number of Users</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>175,000,000^320</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Chrome (Google)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>2,000,000^327</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Docs (Google)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>1,250,000^328</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Instant Messenger (AOL)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>55,000,000^329</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Firefox (Mozilla)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>180,000,000^330</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Photoshop Express (Adobe)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>450,000^331</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OpenSUSE (Novell)</td>
<td>No^332</td>
<td>Yes</td>
<td>Yes</td>
<td>2,000,000^333</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Neverwinter Nights (Bioware)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>1,000,000^334</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>


333. Within the first month of release, about 2,000,000 people were using the new version of OpenSuse. openSUSE:Statistics, openSUSE, http://en.opensuse.org/openSUSE:Statistics (last visited March 2, 2010).

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Flagship</th>
<th>New/Updated</th>
<th>Free</th>
<th>Number of Users</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octoshape</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>27,000,000(^{335})</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hellgate: London (Flagship)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Grand Theft Auto IV (Rockstar)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>15,000,000(^{336})</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Windows Vista (Microsoft)</td>
<td>Yes(^{337})</td>
<td>Yes</td>
<td>No</td>
<td>20,000,000(^{338})</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Passport (Microsoft)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>7,000,000(^{339})</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Jajah</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>25,000,000(^{340})</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flip4Mac (Telestream)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School Check IN</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dropbox</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>3,000,000(^{341})</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scribblenauts (5th Cell)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>194,000(^{342})</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

335. Number of people that watched the 2009 inauguration on CNN. Not all used Octoshape, but all were presented with the option of using Octoshape. John D. Sutter, *Online Inauguration Videos Set Records*, CNN (Jan. 21, 2009), http://articles.cnn.com/2009-01-21/tech/inauguration.online.video_1_streaming-video-inauguration?_s=PM:TECH.


337. Windows and Office are the two highest revenue and profit generating products by far for Microsoft; while Office has a slightly higher revenue, Windows is slightly more profitable; ‘both should be considered flagship products. Microsoft Co., Annual Report (Form 10-K) (Aug. 3, 2007).


Table 3: Term Characteristics

This table contains data for the term-based factors derived in Part I.B. Most data could be found simply by observing the term. Data on whether the term was new or updated was often found through news sites or by visiting the Wayback Machine.\(^{343}\) Each term-based factor was evaluated as follows:

*Direct Financial Impact on Firm:* whether changing or removing the term would have a direct, clear, and immediate effect on the firm’s revenue or finances. An example would be a term that is directly tied to in-game advertisements for a computer game.

*Type of Term:* the subject matter of the term, such as licensing or privacy.

*New/Updated:* whether the term in question was introduced or changed in the month prior to the incident.

<table>
<thead>
<tr>
<th>Case</th>
<th>New or Updated</th>
<th>Type</th>
<th>Financial Impact</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>Yes</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Chrome (Google)</td>
<td>Yes</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Docs (Google)</td>
<td>No</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Instant Messenger (AOL)</td>
<td>Yes(^{344})</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Firefox (Mozilla)</td>
<td>Yes(^{345})</td>
<td>General—EULA</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Photoshop Express (Adobe)</td>
<td>Yes</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OpenSUSE (Novell)</td>
<td>Yes</td>
<td>General—EULA</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Neverwinter Nights (Bioware)</td>
<td>Yes</td>
<td>Licensing/Ownership</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Octoshape</td>
<td>No</td>
<td>Privacy</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hellgate: London (Flagship)</td>
<td>Yes</td>
<td>Privacy/Ads</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Grand Theft Auto IV (Rockstar)</td>
<td>No</td>
<td>Public Performance</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

\(^{343}\) Internet Archive Wayback Machine, http://web.archive.org (last visited Feb. 21, 2011). The site takes snapshots of many web pages each time they change. For more information, see http://www.archive.org/about/faqs.php.

\(^{344}\) See supra note 252.

\(^{345}\) The EULA had been added to a segment of the market that previously did not have to agree to one. See supra note 183.
Table 4: News Characteristics

This table contains data for the news-based factors discussed in Part I.B. Figures were calculated by performing a search on Google News\textsuperscript{349} or Google Blogs\textsuperscript{350} from the time of the first news article or blog post on the subject until a day before capitulation, for a search string that included the company name, the product name, and type of agreement (e.g., “Mozilla Firefox EULA”). Values in brackets are the news articles per day, an attempt to normalize values. For instance, if capitulation occurred two days after the first news article, and there were nine news articles total, $9/2 = 4.5$, rounded to 5, is the normalized amount. Specifics of each of the term-based factor are as follows:

*Ex Ante News Hits*: the number of hits on Google News from the time of the first story until capitulation by the firm. If the firm did

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\textsuperscript{346} Transferability of the license will affect aftermarket sales and has a potentially large impact on revenue.

\textsuperscript{347} Violating the terms would result in direct financial gain for the firm, assuming the terms were upheld in court. See School Check IN, Appendix Section A, supra.

\textsuperscript{348} Like the term in Windows Vista, the term regarding transferability of Scribblenauts would have a clear relationship to revenue.

\textsuperscript{349} Google News aggregates stories from approximately 4,500 news sites that are vetted by Google. See About Google News, GOOGLE NEWS, http://news.google.com (last visited Feb. 21, 2011).

\textsuperscript{350} Google Blogs aggregates blog stories from any blog that has a site feed and uses an updating service to publish stories. See Blog Search Help, GOOGLE BLOG search, http://www.google.com/support/blogsearch/?hl=en (last visited Mar. 2, 2011).
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not capitulate, the number of news hits that appeared within a month of the first news article is used.\textsuperscript{351}

\textit{Ex Ante Blog Search Hits}: the number of blog hits on Google Blogs from the time of the first story until capitulation by the firm. If the firm did not capitulate, the number of blog hits that appeared within a month of the first blog post is used.

\textit{Ex Post News Hits}: the number of news hits on Google News from the day of capitulation until one week later.\textsuperscript{352} If there was no capitulation, a “.” is used.

\textit{Ex Post Blog Search Hits}: the number of news hits on Google Blogs from the day of capitulation until one week later. If there was no capitulation, a “.” is used.

\textit{Alexa Ranking}: the current Alexa web traffic ranking of the originating news source in the United States.\textsuperscript{353} The current Alexa ranks of websites are used since historical ranks were not always available.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|c|c|c|}
\hline
\textbf{Case} & \textbf{Ex ante News} & \textbf{Ex post News} & \textbf{Ex ante Blogs} & \textbf{Ex post Blogs} & \textbf{Alexa Ranking} & \textbf{Addressed Issue} & \textbf{Changed} \\
\hline
Facebook & 16 [8] & 75 [11] & 153,000 [27,000] & 156,000 [22,000] & 987\textsuperscript{354} & Yes & Yes \hline
Chrome (Google) & 7 [7] & 56 [8] & 89 [89] & 3200 [460] & 44\textsuperscript{355} & Yes & Yes \hline
\end{tabular}
\caption{News Characteristics}
\end{table}

351. As most incidents of capitulation happened within a month, a month as the cutoff is used.

352. News stories are generated extremely quickly online. See generally PHILIP SEIB, GOING LIVE: GETTING THE NEWS RIGHT IN A REAL-TIME, ONLINE WORLD (2002). Given the high rate of speed news is created, news may also tend to disappear quickly. See Michael Karlsson, Immediacy of Online News: Journalistic Credo Under Pressure 19 (Jun. 4, 2010) (unpublished manuscript), available at http://www.allacademic.com/meta/p169476_index.html. This variable therefore uses a week as its time period, both because of the immediacy and impermanence of online news as well as the observations of when news stories tended to taper off, based on number of hits for certain news incidents over time over on http://news.google.com.


<table>
<thead>
<tr>
<th>Case</th>
<th>Ex ante News</th>
<th>Ex post News</th>
<th>Ex ante Blogs</th>
<th>Ex post Blogs</th>
<th>Alexa Ranking</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenSUSE (Novell)</td>
<td>0 [0]</td>
<td>3 [0]</td>
<td>73 [0]</td>
<td>13 [2]</td>
<td>1,687,018[360]</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Neverwinter Nights (Bioware)</td>
<td>0 [0]</td>
<td>-</td>
<td>0 [0]</td>
<td>-</td>
<td>4,153[361]</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Octoshape</td>
<td>3 [0]</td>
<td>-</td>
<td>72 [2]</td>
<td>-</td>
<td>17,694[362]</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Grand Theft Auto IV (Rockstar)</td>
<td>0 [0]</td>
<td>-</td>
<td>8 [1]</td>
<td>-</td>
<td>136,047[364]</td>
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<td>Jajah</td>
<td>1 [0]</td>
<td>1 [0]</td>
<td>4 [1]</td>
<td>1 [0]</td>
<td>.[367]</td>
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<td>Yes</td>
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</tbody>
</table>

356. *Id.*


<table>
<thead>
<tr>
<th>Case</th>
<th>Ex ante News</th>
<th>Ex post News</th>
<th>Ex ante Blogs</th>
<th>Ex post Blogs</th>
<th>Alexa Ranking</th>
<th>Addressed Issue</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flip4Mac (Teles-</td>
<td>0 [0]</td>
<td>0 [])</td>
<td>1 [0]</td>
<td>0 [])</td>
<td>368.5,842</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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<td>stream)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Check IN</td>
<td>1 [0]</td>
<td>.</td>
<td>1 [0]</td>
<td>.</td>
<td>3821</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dropbox</td>
<td>0 [0]</td>
<td>0 [0]</td>
<td>15 [0]</td>
<td>3 [0]</td>
<td>206,665</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scribblenauts (5th</td>
<td>0 [0]</td>
<td>.</td>
<td>2[0]</td>
<td>.</td>
<td>3,505,556</td>
<td>No</td>
<td>No</td>
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<td>Cell)</td>
<td></td>
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</tr>
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</table>

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