ARTICLES

INFORMATION FLOODING

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ABSTRACT

Consumers are under siege. A flood of information is forcing consumers to abandon rational decision-making. The very laws designed to help consumers navigate information—mandated disclosures—are causing them to become even more overwhelmed. Reducing mandated disclosures will lessen information overload and empower consumer choice. This is the dominant message from politicians, agency officials, and academics. Unfortunately, it is wrong.

Although consumers are faced with vast amounts of information, mandated disclosures are not solely responsible for the sea of data. Corporate strategy is also a source of overload. Some companies intentionally confuse consumers through information flooding—submerging bad facts about their products or services in volumes of irrelevant information. Inexpensive, web-based data sources have made information flooding worse than ever. Yet, consumer decision-making is also empowered like never before. In the face of information onslaught, the market has given rise to specialized intermediaries to curate data for consumers, providing convenient access to salient information through apps and handheld devices.

Understanding information flooding significantly shifts the conversation about how to empower consumer choice. Market solutions, rather than futile attempts to reform mandated disclosures, are the key to keeping consumers empowered and informed. In the rare cases where information overload harms consumer choice, government should promote the expansion of intermediaries rather than trying in vain to outrun corporate innovation.

INTRODUCTION

Billions of consumers receive too much information as they move through
daily life.\(^1\) Overwhelmed consumers give up on rational decision-making and make arbitrary choices, diminishing consumer welfare and distorting market signals.\(^2\) Fixing the harmful effects of information overload has become a national obsession.\(^3\) But, politicians are luddites when it comes to improving consumer decision-making. Policymakers are focused on reforming or eliminating mandatory disclosure regimes to fix overload.\(^4\)

This Article joins a growing body of recent scholarly work in challenging the received wisdom that reforming—or even eliminating—mandatory disclosures will solve the problem of information overload.\(^5\) It argues that regulators have failed to account for firms strategically dumping information on consumers to hide bad facts about their products or practices, which it terms “information flooding.”\(^6\) Firms overwhelm consumers to increase profitability by increasing

1. Information overload is pervasive. “A weekday edition of The New York Times contains more information than the average person was likely to come across in a lifetime in seventeenth-century England.” RICHARD WURMAN, INFORMATION ANXIETY 32 (1989). Doctors have identified “information fatigue syndrome” as occurring when patients are paralyzed by the need to analyze information, leading to difficulty in finding the right solutions and making the best decisions. DAVID LEWIS, DYING FOR INFORMATION (1998).

2. Cass R. Sunstein, Empirically Informed Regulation, 78 U. CHI. L. REV. 1349, 1369 (2011) (noting that “even accurate disclosure of information may be ineffective if the information is too . . . overwhelming to be useful”).


6. “Information flooding” is different from, but related to, the widely-discussed problem of “information overload.” Overload is the result of too much information, flooding is the cause. Information overload describes consumers making cognitive mistakes because they are overwhelmed and confused by the amount of information. Overload is a well-established, widely-discussed concept. Information flooding describes why there is so much information that consumers become overloaded. It captures that companies intentionally overload consumers with information to gain strategic advantages. This Article is the first to introduce the concept of
Information flooding changes the conversation about how to expand consumer choice. It shows that firms respond dynamically to information regulation, drowning out legally-required disclosures. Because laws ossify as soon as they are passed and firms can innovate, mandatory disclosure regimes will always be a step behind firms’ information flooding. Simply put, mandatory disclosure cannot be reformed to work well. There are better ways to promote consumer choice.

The supposedly devastating effects of information overload are usually not so bad in practice. Markets have developed solutions to aid consumers. Companies including Mint, Amazon, and Google have earned billions of dollars guiding consumers through information-flooded realms. These “information intermediaries” process, analyze, and distill information for consumers.

But, what to do with pockets of law—like “green claims” in environmental markets—where overload remains a problem? This Article proposes a new model for government intervention to prevent information flooding. It argues for leveraging information intermediaries by incentivizing them to enter the isolated areas where consumer decision-making fails.11 Encouraging intermediaries to enter underserved, high-value areas will provide adaptive, effective solutions to information overload.

This Article also advances a larger normative claim: information flooding is pervasive not only in firm-consumer transactions but also throughout a variety of legal arenas. Groups including nongovernmental organizations, agency officials, and political parties engage in flooding on a regular basis. This Article ends by foreshadowing one example of this broad applicability: information flooding in administrative law. This is a small preview of the widespread applicability of the concept of information flooding and the possibilities it offers for regulatory reforms.

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7. Richard J. Pierce, Jr., Rulemaking Ossification Is Real: A Response to Testing the Ossification Thesis, 80 GEO. WASH. L. REV. 1493, 1493 (2012) (noting that “[m]any scholars have long maintained that the process of issuing rules . . . has become ‘ossified’”).


12. See infra notes 171-77.

13. See Part IV.
Part I introduces the concept of what this Article terms "information flooding," companies intentionally burying bad facts in junk information so consumers cannot find them. Part II illustrates that understanding information flooding dramatically shifts the conversation surrounding the raging debate over the potential to improve consumer choice. The dominant regulatory fix—improving or reducing mandated disclosures—cannot be reformed to address information flooding. Part III argues that market solutions have emerged to counter information flooding. Information intermediaries—companies that distill information—promote better consumer decisions. Because of these intermediaries, information overload is likely not as big of a problem as widely believed. Where it is a problem, leveraging intermediaries is the key to effective reform. Part IV shows that the concept of information flooding is much broader than the firm-consumer model suggests. Virtually every public and private actor has the potential to engage in information flooding. The wider applicability of the idea is demonstrated by a brief sketch of information flooding in Administrative Law. Part V briefly concludes.

I. INFORMATION FLOODING

Firms inundate consumers with junk information to hide bad facts, a practice this Article terms "information flooding." Consumers' brains shut down when faced with vast amounts of data. Thus, information flooding causes consumers to make arbitrary choices, which harm consumer welfare and distort market signals. Decades of empirical study and dozens of cases indicate that firms

14. Structuring this Article requires a difficult choice: whether to first provide the new theoretical foundation of information flooding, or to instead begin with an account of the received wisdom of consumer choice. Presenting the theoretical concept of information flooding first requires readers to take on faith that this concept is a game-changing development in consumer choice debates. But, beginning with the current consumer choice debate requires readers to spend time reading through a model that this Article later argues is hopelessly flawed. This Article begins with a brief introduction to information flooding, including examples of it in practice. This forms the basis for the remainder of the article, which discusses the background literature about consumer choice and mandatory disclosure regimes. The Article repeatedly returns to these early examples and concepts to illustrate how the theoretical model of information flooding challenges the efficacy of mandatory disclosures and provide new, more promising, regulatory solutions.

15. Information overload occurs when consumers receive more information than they can reasonably process. Sunstein, supra note 2, at 1369.

16. See Jacob Jacoby, Information Load and Decision Quality: Some Contested Issues, 14 J. MARKETING RES. 569, 569 (1977) (“Information overload refers to the fact that there are finite limits to the ability of human beings to assimilate and process information during any given unit of time. Once these limits are surpassed, the system is said to be ‘overloaded’ and human performance (including decisionmaking) becomes confused, less accurate, and less effective.”).

17. Corporate social performance literature authored by interdisciplinary academics from management, economics, and accounting demonstrates that firms with poor environmental performance tend to report more about the quality of their environmental performance than firms
intentionally engage in information flooding, precisely to cause consumers to make poor decisions.

A. Information Flooding

Eighteen-year-old Veronica Gutierrez had a busy afternoon. It started when she bought Subway sandwiches for $11.27. Then, she stopped by AutoZone to purchase $80 worth of car parts. Finally, she wrote a $65 check. The total of the day’s purchases was greater than the amount in Veronica’s Wells Fargo checking account. She was $49 overdrawn.

Prior to 2005, Veronica would have owed her bank a $22 overdraft fee. But, in 2005, Wells Fargo implemented a “Balance Sheet Engineering” policy to maximize its revenue, including reordering customer transactions to increase the bank’s revenue. Wells Fargo reordered Veronica’s purchases from chronological order, placing the highest-value transactions first and the lowest-value transactions last. By ordering the car parts first, the grocery store second, and the sandwiches last, the bank was able to charge Veronica three overdraft fees of progressively higher amounts. Veronica was charged $111 in overdraft

with good financial performance. This largely empirical literature has been growing for over thirty years. See Sulaiman A. Al-Tuwaijri, The Relations Among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach, 29 ACCT. ORGS. & SOC’Y 447, 448 (2004) (listing a number of disciplines engaged in the conversation regarding information loads linked to environmental performance); Manuel Castelo Branco & Lucia Lima Rodrigues, Issues in Corporate Social and Environmental Reporting Research: An Overview, 1 ISSUES SOC. ENVTL. ACCT. 27, 77 (2007) (noting that companies attempt to avoid social and regulatory pressure by reporting on environmental metrics); Joanne Wiseman, An Evaluation of Environmental Disclosures Made in Corporate Annual Reports, 7 ACCT. ORG. & SOC’Y 53, 54 (1982) (noting that “the completeness, length and items of information included in voluntary environmental disclosures is not a representative measure of actual environmental performance, and may in fact misrepresent a firm’s performance compared to other firms in the same industry”).

18. See infra Part II.C (discussing several lines of cases, including overshadowing and buried fact doctrine cases, in which judges identify firms intentionally overwhelming consumers with too much information).


20. Id. at 1087.

21. Id.

22. Id.

23. Id.

24. Id.

25. Id. at 1088.

26. Id.

27. Id. (describing the order in which sums were posted for the collection of overdraft fees per page twenty-four of Wells Fargo’s sixty-page Consumer Account Agreement).

28. Id.
fees for her afternoon of shopping.\textsuperscript{29} What happened to Veronica happened to thousands of banking customers.\textsuperscript{30}

Wells Fargo Bank assessed over $1.4 billion in overdraft fees between 2005 and 2007.\textsuperscript{31} Changing the post ordering to high-to-low increased its profitability by approximately $500 million a year.\textsuperscript{32} Traditionally, the bank deducted the lowest payments a customer made on a particular day before deducting higher payment.\textsuperscript{33} Wells Fargo discovered that by simply reversing the order in which the deductions were made—from posting charges from low-to-high to high-to-low—accounts would accrue far more overdraft charges.\textsuperscript{34} A district court judge found “the bank’s dominant, indeed sole, motive”\textsuperscript{35} for changing from high-to-low posting was “exclusively to generate more overdraft fees and fee revenues at the expense of depositors.”\textsuperscript{36}

Why did Veronica not switch banks when Wells Fargo adopted the policy? She didn’t know about it.\textsuperscript{37} Wells Fargo claimed that it disclosed the change to consumers, consistent with federal law requiring banks to inform customers of changes in banking practices (a mandated disclosure).\textsuperscript{38} The required disclosure was printed as a single bullet in a lengthy document.\textsuperscript{39} The judge found that “the bank went to great lengths to bury the words deep in a lengthy fine-print document.”\textsuperscript{40} Burying the disclosure in a sea of irrelevant information rendered it meaningless. The amount of information overwhelmed consumers. Testimony demonstrated that consumers did not read the document because it was so long.\textsuperscript{41} By burying an important disclosure in a long document, Wells Fargo was engaging in “information flooding.”

Information flooding describes companies intentionally giving consumers so much information that it triggers overload.\textsuperscript{42} Consumers give up on making reasoned decisions or learning more. Companies flood consumers to hide bad

\begin{itemize}
\item \textsuperscript{29} Id. at 1089.
\item \textsuperscript{30} Id. at 1128.
\item \textsuperscript{31} Id. at 1082.
\item \textsuperscript{32} Id. at 1104.
\item \textsuperscript{33} Id. at 1084.
\item \textsuperscript{34} Id.
\item \textsuperscript{35} Id. at 1097.
\item \textsuperscript{36} Id. at 1104.
\item \textsuperscript{37} Id. at 1086.
\item \textsuperscript{38} Id.
\item \textsuperscript{39} Id.
\item \textsuperscript{40} Id. at 1124.
\item \textsuperscript{41} Id. at 1115.
\item \textsuperscript{42} Intentionality is a key component of information overload. Firms’ strategic attempts to exploit consumers have been recognized in withholding information, but not with regard to information overload. See Xavier Gabaix & David Laibson, \textit{Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets}, 121 Q. J. ECON. 505, 505 (2006) (arguing that “[w]hen consumers make mistakes, firms will try to exploit those mistakes”).
\end{itemize}
facts about their products or practices, like inadequate privacy policies or poor environmental performance.

If companies notified consumers of bad facts straightforwardly, they would lose customers and the associated revenue. Information flooding allows companies to garner the public relation benefits of transparency. If sued, companies can claim that they disclosed key facts. But, really, companies engaged in flooding are strategically hiding the important information, albeit in plain sight. Key facts are surrounded by so much vague, meaningless information that consumers cannot functionally access them.

Across industries, firms with facts to hide respond to mandated disclosures by flooding markets with information. Laws, norms, and markets alike punish companies for providing too little information. Companies are lauded for transparency when they over-disclose. There are few corresponding punishments.


46. Craswell, supra note 4, at 584 (suggesting that a company may disclose a discrete fact that is technically correct but misleading about the larger point).

47. Sunstein, supra note 5, at 624 (noting that information regulation is a response to firms providing inadequate amounts of information).

48. Jacob Vos, Actions Speak Louder Than Words: Greenwashing in Corporate America, 23 NOTRE DAME J. ETHICS & PUB. POL’Y 672, 680-81 (2009) (describing public companies as operating under a strong norm that they will make public claims about environmental policy).

49. See generally MICHAEL KERR ET AL., CORPORATE SOCIAL RESPONSIBILITY: A LEGAL ANALYSIS (2011) (arguing that the pressure on companies to be socially responsible has become so great that corporate adoption of responsible practices is no longer strictly voluntary).
for providing too much information. The problem is that too much information produces information overload, which causes consumers to make poor choices.

B. Information Overload

Consumers have a fickle relationship with information. With too little information, consumers make poor choices. But, too much information also produces the same outcome. Consumers’ ability to make decisions that reflect their best interests requires enough information to facilitate conscious decision-making, but not so much as to overwhelm.

Intuitively, we understand that consumers with too little information make arbitrary choices. Imagine a person shopping at a grocery store in which the products were not labeled. Selecting tomatoes from a sea of unlabeled canned goods would be a frustrating endeavor. The customer would take a long time to make selection, incurring high search costs. Or, he might pick several cans at random, hoping that one contained tomatoes. The customer would likely return home only to discover that he had accidently selected a can of corn instead of tomatoes. Time and money are wasted in markets, like the grocery store, that do not give consumers enough information to satisfy their preferences. Consumer welfare suffers.

Marginal increases in the amount of information may also be insufficient. Imagine that the grocery store labels bore the names of the cans’ content, such as “tomatoes” or “peaches” but nothing else. The customer would be a little better off. He would no longer buy corn while hoping for tomatoes. But, not all consumers would be able to satisfy their preferences. Nutrition-conscious consumers could not be able to differentiate tomatoes with added sugar from pure tomatoes. To allow such consumers to satisfy their preferences, canned goods include standardized nutrition labels, product weights, and clearly marked pricing. Each of these pieces of information enables grocery store shoppers to make choices reflecting their preferences. Supporting consumer choice by

50. Henkel v. Aschinger, 962 N.E.2d 395, 406 (Ohio Com. Pl. 2012) (finding that “too much information can be as misleading as too little”); Davidson, supra note 3 (arguing that “[t]oo much information, it turns out, is a lot like no information”).

51. Jacob Jacoby et al., Brand Choice Behavior as a Function of Information Load: Study II, in ADVANCES IN CONSUMER RESEARCH 381-83 (Scott Ward & Peter Wright eds., 1974).

52. Jacoby, supra note 16, at 569 (defining information overload as “the fact that there are finite limits to the ability of human beings to assimilate and process information during any given unit of time”); Kenneth Einar Himma, The Concept of Information Overload: A Preliminary Step in Understanding the Nature of a Harmful Information-Related Condition, 9 ETHICS & INFO. TECH. 259, 260 (2007) (providing a comprehensive overview of the cognitive mistakes created by information overload and explaining various views on the value of information).

providing this additional information increases consumer welfare.  

Crucially, though, there is a point when consumers are given so much information that it is harmful. When faced with overwhelming amounts of information, consumers give up on making decisions reflecting their preferences.54 They make arbitrary choices to save time and to avoid the frustration caused by high search costs.55

Consider the grocery store customer seeking to satisfy “green” preferences. This consumer is willing to pay more for products with relatively less environmental harm. In the egg aisle, the green consumer faces too much information. Some eggs are labeled as “cage free,” others are “organic,” some are “free range” and others are “ethically produced.” Because these terms do not provide underlying information about environmental attributes, the consumer cannot distinguish which eggs satisfy his preference. He pays more for “ethically produced” eggs without knowing whether they are environmentally sound.

This is an example of too much information—the overwhelmed consumer cannot sort out competing claims. Decisions become arbitrary. Just like the consumer who intended to buy tomatoes but came home with corn because of too little information, the consumer with too much information purchased “ethically produced” eggs when “organic” eggs might have better satisfied her preferences. Too much information produces similar effects as too little information. The consumer’s welfare suffers.

Thus information operates along a curve,56 on which both too little57 and too much information harms consumers.58


56. This information curve is adapted from the work of information behavior scientist Jacob Jacoby. See Jacoby et al., supra note 51, at 381-83.


58. Henkel v. Aschinger, 962 N.E.2d 395, 406 (Ohio Com. Pl. 2012) (“[T]oo much information can be as misleading as too little.”); Davidson, supra note 3 (“Too much information, it turns out, is a lot like no information.”).
Figure 1. Consumer understanding is low when they are faced with both too little and too much information.

As consumers receive more information, decision quality initially increases. But, eventually, the information load becomes too great. Then, each marginal unit of information decreases the consumers’ decision quality. Information flooding occurs when companies intentionally trigger consumers’ inability to process information. It causes consumers to make arbitrary choices. As a result, information flooding wreaks havoc on both individual consumers and markets as a whole.

C. Harming Consumers and Markets

Leonardo DiCaprio arrived at the Oscars in a Prius in 2003. Al Gore won a Nobel Peace Prize for raising climate change awareness, as evidenced through the Academy Award-winning documentary *An Inconvenient Truth*, in 2007. American consumers were demanding environmentally-friendly products and were willing to pay more for them throughout the new millennium. Eleven

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60. Paredes, *supra* note 54, at 441.
65. Glenn Israel, *Taming the Green Marketing Monster: National Standards for*
percent of all assets in the United States screened out financial products that failed to meet environmental and social performance objectives in 2011. It is difficult to identify the exact moment when consumers began trending towards environmentally-conscious products. But, going green—from buying organic foods to reducing carbon footprints—is a defining feature of modern American life.

Companies have responded to consumer demand for green products by information flooding. Some firms have sincere ideological commitments to reducing the environmental footprint of their goods and services. Others simply responded to consumer demand—and dollars—that flow towards green products. Established firms worry about losing market share and profitability to green firms. They could attract green customers by investing in sustainability. Instead, they rely on information flooding to confuse customers about competitors’ claims. Firms with poor environmental performance “greenwash” by advertising their products as being environmentally-superior, even when they have not made investments in sustainability measures.

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67. See Israel, supra note 65, at 303-05.


70. KERR ET AL., supra note 49 (arguing that the pressure on companies to be socially responsible has become so great that corporate adoption of responsible practices is no longer strictly voluntary).

71. See Emma M. Lloyd, “Greening” the Supply Chain: Why Corporate Leaders Make It Better, 27 J. LAND USE & ENVTL. L. 31, 55 (2011) (quoting Mike Duke, a Walmart executive, who stated that “[c]ustomers] increasingly . . . want information about the entire lifecycle of a product so they can feel good about buying it. They want to know that the materials in the product are safe, that it was made well[,] and that it was produced in a responsible way.”).


“Greenwashing” is information flooding that involves materials related to the sustainability of products and companies. Firms engaged in greenwashing are intentionally overwhelming consumers with so much information that consumers cannot determine whether a company or product meets their preferences for good environmental performance. Companies make vague, meaningless claims designed to confuse customers about which products and companies truly are sustainable. There is an inverse relationship between the quality of environmental performance and the quantity of disclosure. The worse a firm’s environmental performance, the more information it releases, claiming good performance.

Information flooding is merely one of many outcomes of companies seeking profit in a stiffly competitive marketplace. It is on par with companies’


75. Corporations across industry, including those not traditionally viewed as being green, engage in sustainability efforts. See, e.g., CHARLES WOOLFSON & MATTHAIS BECK, CORPORATE SOCIAL RESPONSIBILITY FAILURES IN THE OIL INDUSTRY (2005) (challenging the oil industry’s claims of good corporate citizenship); Matthew T. Bodie, NASCAR Green: The Problem of Sustainability in Corporations and Corporate Law, 46 WAKE FOREST L. REV. 491 (2011) (discussing, with skepticism, NASCAR’s attempts to “go green”).


77. See William S. Laufer, Social Accountability and Corporate Greenwashing, 43 J. BUS. ETHICS 253, 257 (2003) (noting that “[t]he very firms that wash their reputations through public relations, complex front coalitions, sponsored ‘think tanks’ and who publically lead the fight against global warming, nuclear waste, and water pollution, remain some of the worst corporate offenders”).

78. Wiseman, supra note 17, at 61 (noting that “longer environmental disclosures do not represent better environmental performance”); accord Robert W. Ingram & Katherine Beal Frazier, Environmental Performance and Corporate Disclosure, 18 J. ACCT. RES. 614, 620 (1980) (finding that there is, at best, a weak association between firms’ disclosure content in annual reports and independent measures of social performance).

79. See Aaron K. Chatterji et al., How Well do Social Ratings Actually Measure Corporate Social Responsibility?, 18 J. ECON & MGMT. STRATEGY, 125, 126 (2009) (noting that “[m]any companies attempt to enhance their environmental image by mitigating deleterious effects on the
exploiting biological attraction to trick consumers into eating more potato chips.\textsuperscript{80} We accept, and even grudgingly admire, corporate innovation in many arenas. Therefore, why shouldn’t information flooding be celebrated as another example of corporate ingenuity?\textsuperscript{81}

Information flooding has destroyed markets for environmentally-friendly goods.\textsuperscript{82} More than a decade after DiCaprio showed up in a Prius, progress on environmental objectives through better consumption has stalled. Green goods have become a market for lemons.\textsuperscript{83} Companies make egregiously confusing assertions of being green.\textsuperscript{84} Consequently, consumers cannot distinguish honest claims.\textsuperscript{85} The failure of green markets is a story of the destructiveness of information flooding.

Information flooding in green markets, and all other markets, imposes search costs on consumers.\textsuperscript{86} Consumer confusion and frustration are easily identified as costs of green information flooding.\textsuperscript{87} Even if consumers invest time in

\begin{itemize}
    \item \textsuperscript{82} Kysar, \textit{supra} note 57, at 626 (explaining that rampant false “green” claims have distorted the market for green goods).
    \item \textsuperscript{83} Id. at 626 n.427 (noting that greenwashing has transformed the market for sustainably-produced goods into a market for lemons in which misrepresentations, rather than legitimate, accurate information, predominate).
    \item \textsuperscript{84} One way in which companies trick consumers about their environmental practices is by controlling the timing of information released, so that bad data is accompanied by good data. Nola Buhr & Marty Freedman, \textit{A Comparison of Mandated and Voluntary Environmental Disclosure: The Case of Canada and the United States}, 8 CRITICAL PERSPECTIVES ON ACCOUNTING CONFERENCES 1, 8-9 (1996) (noting that because some companies produce their environmental reports at a different time than their annual reports, there may have been environmental reports missing from the empirical study).
    \item \textsuperscript{85} David Hoch & Robert Franz, \textit{Eco-Porn Versus the Constitution: Commercial Speech and the Regulation of Environmental Advertising}, 58 ALB. L. REV. 441, 442 (1994) (noting that surveys indicate that almost fifty percent of consumers dismiss green claims as “mere gimmickry”).
    \item \textsuperscript{87} See \textit{id.} at 425-28.
\end{itemize}
searching for goods, they may not find what they want. Because consumer purchases do not reflect their preferences, market signals are distorted.

Consumers send mixed or incorrect messages to firms about the extent to which they value green products. This, in turn, undermines the competitive advantage of sustainable firms. They lose market shares to misled customers who want to “go green” but are confused about which products are truly sustainable. The profit premium for sustainability efforts shrinks, causing sustainable firms to cut back on investments in sustainable practices. Innovation in sustainability will come slowly, if at all, without continued infusions of investment. Without a profit motive, companies have little incentive to invest in sustainability. This is doubly harmful in markets that produce public goods, as green markets do. Information flooding can limit the production of public goods. In turn, rewards for sustainability are minimal. This becomes a downward spiral.

Green markets provide one of several examples of the harms of information flooding. Unfortunately, the commonly-offered solution of mandated disclosure actually exacerbates the harmful effects of information flooding.

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88. Cristi Lindblom, The Implications of Organizational Legitimacy for Corporate Social Performance and Disclosure (1994) (transcript on file with author) (noting that corporations may use disclosure to deflect attention from an issue of concern by highlighting other accomplishments).

89. See Kysar, supra note 57, at 626-27 (noting that, because of greenwashing, the market for sustainably-produced goods is predominated by misrepresentations rather than legitimate, accurate information).

90. See id. (describing the ease with which companies can develop marketing schemes designed to confuse consumers and providing the example of unregulated organic labeling).

91. See Lloyd, supra note 71, at 34 (noting that corporate officers are forced to consider “whether becoming sustainable contradicts the goal of continuing business operations in the current market place”).

92. See id. at 55-62 (describing the extreme lengths to which Walmart and Nike went in order to implement sustainability practices).

93. See id. at 34 (discussing how profitability is weighed in determining whether to invest in sustainability practices).

94. See Kysar, supra note 57, at 533 (noting that consumers, acting on “process preferences,” reveal “their true level of support for human safety, the environment, and a host of other public goods”).

95. See id.

96. See id. at 626-27 (suggesting that companies that adopt sustainability practices may not necessarily profit from them, due to the misleading marketing strategies used by other, less environmentally-conscious companies).

97. Green markets are, however, a particularly poignant example of the harms of information flooding, as information flooding in that context reduces the public good of environmental well-being, as well as individual consumer welfare.

98. See Sunstein, supra note 2, at 1369 (explaining that consumers make poor choices when they are overwhelmed with information).
D. How Have We Missed This?

If information flooding is so widespread, one must wonder how it was missed for so long. Scholars have empirically demonstrated the harmful effects of information flooding in many fields. They have not, however, linked their individual findings together to identify the broad and pervasive practice of information flooding.

Courts have also addressed the issue in a number of cases, but they are scattered across disparate areas. Silos of research into “contracts” or “tax” or “environmental law” alone may turn up a few examples, but fail to catch the ubiquity of the practice. This Article looks across pockets of law to identify the broader trend. Information flooding is a far more widespread phenomenon than previously realized, suggesting that mandated disclosure alone, as a regulatory strategy, simply cannot work.

Identifying information flooding is difficult. One is loath to mistakenly call well-intentioned attempts information flooding. Intent to deceive, a crucial facet of information flooding, is hard to discern. A company releasing information may be genuinely trying to aid consumers, or de-bias competing claims. Companies also aggressively attempt to shut down scholarship calling into question their practices. This is because scholars identifying “good” and “bad” corporate practices open up a can of worms. Information flooding examples in this article are drawn from judges identifying the practice or empirical literature

99. See id.

100. See Henkel v. Aschinger, 962 N.E.2d 395, 399, 406 (Ohio Com. Pl. 2012) (finding, in a case brought by shareholders alleging that their company made material omissions and misstatements on the proxy statement that it filed with the SEC, that “too much information can be as misleading as too little”); Savino v. Computer Credit, Inc., 164 F.3d 81, 84-85 (2d Cir. 1998) (finding in favor of the consumer plaintiff in a case alleging that the defendant debt collector’s demand for payment overshadowed its required notice of rights and clarifying that “[a] debt collection notice is overshadowing or contradictory if it fails to convey the validation information clearly and effectively and thereby makes the least sophisticated consumer uncertain as to her rights”); In re Martinez, 266 B.R. 523, 530, 536 (Bankr. S.D. Fla. 2001) (noting, in a bankruptcy case, that the notice of rights provided to the plaintiff by the defendants office was inappropriately hidden on page eight of a sixteen-page letter).

101. See infra Part II.

102. See Michael R. Siebecker, Trust and Transparency: Promoting Efficient Corporate Disclosure through Fiduciary-Based Discourse, 87 WASH. U. L. REV. 115, 132-133 (2009) (noting that even corporations acting in good faith “might opt for excessive disclosure, because [they] . . . face a dilemma: Too often they just don't know what they know. And when they do, they don't know what to share”).

of particular industries, not independent assessments.104

Information flooding, although pervasive, is not always that harmful. Left unchecked, it can clearly harm consumers and distort markets.105 But, as explained in Part III, there are checks on information flooding.106 Companies have emerged to shield consumers from the harmful effects of information overload.107 They usually do a relatively good job. People generally are able to function in the face of the information around them, rather than constantly shutting down as a result of it. For these reasons, it is easy to underestimate the role of information flooding amidst the nearly hysterical discussion of the harmful effects of information overload on consumer choice, which is discussed below.108

II. FLOODING AS A DYNAMIC RESPONSE TO MANDATED DISCLOSURES

A raging national debate focuses on empowering consumer choice through reforming mandatory disclosures.109 Ironically, the dominant regulatory solution to “save” consumers from information overload is implementing mandatory disclosure regimes—laws requiring companies to disclose information to consumers.110 But, information flooding illustrates that mandated disclosure reforms will prove useless in promoting consumer choice.111

A. Expanding Consumer Choice

“Consumer choice” is a popular phrase used by those on both sides of the political aisle. Mitt Romney, the 2012 presidential hopeful, promised to increase consumer choice in healthcare.112 President Barack Obama announced that he

104. Supra note 100 (cases in which various judges highlight the problem of information flooding).
105. See infra Part II.
106. See infra Part III.
107. See infra Part III.A-B.
108. See infra Part II.
109. See BEN-SHAHAR & SCHNEIDER, supra note 4, at 649-51 (introducing the underlying rationale of mandatory disclosures and briefly discussing the debate surrounding their use).
111. See Dalley, supra note 110; McCoy, supra note 110; Willis, supra note 110.
was committed to protecting consumer choice online. Yet, despite campaigning on a platform of expanding consumer choice, politicians have done a poor job of actually achieving it. Like many goals that sound good in campaign speeches, expanding consumer choice can prove difficult in practice.

The central debate about consumer choice is whether government regulation of markets helps or hurts consumer decision-making. One side of the debate argues that too little regulation is contributing to growing income inequality and loss of the middle class. Unregulated market dynamics, they argue, benefit a few elite but leave behind many more average Americans. Elizabeth Warren’s senatorial campaign has shined a spotlight on this position. Warren’s years of research as a law professor have contributed to her view that the current cobbled-together regulations and judicial interventions for consumer protection are insufficient to protect the middle and lower classes. She argues that more comprehensive consumer protection regulation is necessary.

On the other side of the debate, adherents to free market ideals argue that consumer interests are best served by market dynamics, in which sellers respond to consumer demands. Optimism toward the markets’ ability to solve problems is accompanied by the view that markets should be lightly regulated. Of course, this presupposes that consumers can make choices reflective of their preferences.

a “consumer choice market-driven [healthcare] system”).

113. The White House, Technology, http://www.whitehouse.gov/issues/technology (last visited Nov. 12, 2014), archived at http://perma.cc/4N3M-XJ3F (noting that “President Obama has pledged to preserve the free and open nature of the Internet to encourage innovation, protect consumer choice, and defend free speech”).


115. Bar-Gill & Warren, supra note 114, at 38 (noting that a substantial number of middle-income families with low default risk sign up for subprime loans, despite the fact that they qualify for prime-rate loans, which can prove to be “a very costly mistake”).

116. See id. at 21 (explaining that, although many consumers are uninformed, “in most markets, relatively few informed, rational consumers can wield enough influence to ensure the efficient operation of the market”).

117. See id. at 64.

118. Id. at 6 (arguing that consumer credit products should be governed by “the creation of a single regulatory body that will be responsible for evaluating the safety of consumer credit products and policing any features that are designed to trick, trap, or otherwise fool the consumers who use them”).

119. See Epstein, supra note 114, at 128 (arguing that “[t]housands of legislators would be prey to all sorts of error, even if they were immune to the cognitive and emotional errors that plague the rest of us (which they’re not)”).

120. See id. at 115.
preferences, a necessary condition for the market to work.\textsuperscript{121} Even staunch libertarians seek judicial and legislative intervention for preservation of consumer choice when sellers interfere with consumer decision-making, through force or fraud.\textsuperscript{122} The basis for intervention is the need to protect the market from failure caused by distortion or mistrust.

Surprisingly, the polarized sides agree that information overload is the scourge of consumer decisions.\textsuperscript{123} Information overload research suggests that consumers overwhelmed with too much information make poor decisions.\textsuperscript{124} Politicians and academics alike almost universally agree that reducing information overload will improve consumer decisions.\textsuperscript{125} The debate rests on whether regulation or free markets can improve information flows.

The compromise position that has emerged involves the implementation of mandatory disclosure regimes.\textsuperscript{126} Mandated disclosures require companies to publically report key information.\textsuperscript{127} Examples include requirements that publicly-traded companies report facts material to their stock performance and that car manufacturers attach emission compliance standards to the windshields of new cars.\textsuperscript{128} The idea behind these requirements is that consumers will be empowered by the information contained in the disclosures to make choices reflective of their preferences.\textsuperscript{129} This, supposedly, benefits both consumers and markets.\textsuperscript{130} Consumers can more accurately reflect their preferences, lower search costs, and more frequently get what they want.\textsuperscript{131} Markets are subject to quasi-regulatory public pressure by consumers and consumer groups, who pursue

\begin{itemize}
  \item \textsuperscript{122} Richard A. Epstein, \textit{Forbidden Grounds: The Case Against Employment Discrimination Laws} 103-112 (1992) (arguing that government intervention is appropriate to reduce force or fraud in peoples’ transactions).
  \item \textsuperscript{123} See Ben-Shahar & Schneider, supra note 4, at 652-54.
  \item \textsuperscript{124} Jacoby et al., supra note 51, at 381.
  \item \textsuperscript{125} Ben-Shahar & Schneider, supra note 4, at 648.
  \item \textsuperscript{127} See id. at 383-85.
  \item \textsuperscript{129} Case, supra note 126, at 433.
  \item \textsuperscript{130} Id.
  \item \textsuperscript{131} See Kysar supra note 57, at 607 (noting that “consumers [might] derive utility from participating in a marketplace that is rich with information about the consequences of consumption”).
\end{itemize}
companies with negative disclosures. “Good” companies benefit, and “bad” companies lose. In pursuit of profit, the reasoning goes, all companies will perform better in the areas on which they must disclose. Mandated disclosure has become a popular regulatory fix because it is cheap, uncontroversial, and looks good. Politicians who implement mandated disclosure regimes can assure constituents that they are taking action to protect them. At the same time, companies generally accept mandated disclosure because it is relatively low-cost and does not harm their bottom line. In fact, companies even seek mandated disclosures to forestall other, more effective, regulatory practices. Mandated disclosures are also relatively low-cost for the government because monitoring and reporting costs fall on regulated companies and enforcement costs are shifted to the public.

Elected officials implementing mandated disclosure regimes see them as a win-win solution: lots of credit, little cost. As a result, mandated disclosure has become the dominant strategy for promoting consumer choice in fields ranging from privacy to environmental practices, software agreements to banking policies. The problem is that mandatory disclosure regimes actually harm both consumers and the markets that they purport to protect, which means that they have negative regulatory value.

In sum, the central, largely uncontested premise of the consumer choice debate is that consumers make bad choices because they are overwhelmed by information. To solve this problem, politicians rely on mandated disclosures that force companies to tell consumers what they want to know. In other words, consumers make bad choices because they are overwhelmed with more information. The regulatory solution? More information! Absurdly, mandated disclosures respond to overwhelmed consumers by requiring that they receive

132. Regulators increasingly impose mandatory disclosure regimes in the hope that investors, regulators, interested stakeholders, and members of the media will process the disclosed information and exert social pressure on firms with poor performance to improve their practices. See Paul R. Kleindorfer & Eric W. Orts, Information Regulation and Environmental Risks, 18 RISK ANALYSIS 155, 157 (1998) (noting that information regulation allows for indirect enforcement from market economies or citizen stakeholders).

133. Id. at 168.

134. BEN-SHAHAR & SCHNEIDER, supra note 4, at 652.

135. Id.

136. Id.


138. BEN-SHAHAR & SCHNEIDER, supra note 4, at 682.

139. Id.

140. See id.

141. Id. at 735.

142. Information overload occurs when consumers receive more information than they can reasonably process. Sunstein, supra note 2, at 1369.

143. See Jacoby et al., supra note 51, at 381; Himma, supra note 52, at 260.
even more information. Both the premise and the solution are flawed.

B. The Flaws of Mandated Disclosure

A consumer encountering a software agreement for the first time would likely read it with painstaking care. They would wonder what, exactly, they were signing up for. But after several encounters with user agreements, the average consumer would not bother reading the dense text before clicking “I agree.” Consumers unable to sift through pages of legalese in privacy agreements or software license agreements simply agree without reading the terms of the agreement. If consumers want to use the product, they must accept the terms. Besides, agreements are dense and unwieldy. They take a long time to read. Because of this, the disclosures fail to do what they are intended to do: promote consumer choice.

Mandatory disclosure regimes are not working. Study after study shows that this strategy fails to accomplish its goal of helping consumers make better decisions. The reason why mandated disclosures are failing is hotly contested. Red herrings are lining the path of the failure.

One theory is that mandated disclosures are improperly calibrated; they tilt too far toward consumer protection or free markets. Ironically, mandated disclosures are criticized as being both too conservative and too liberal at the same time. Polarized back-and-forth debates about the “right” levels of market regulation to protect consumers are woefully out-of-date. This is a false dichotomy. It may score points on a campaign trail but is doing little to actually promote either consumer welfare or the market efficiencies reliant upon genuine consumer choice.

144. Yannis Bakos et al., Does Anyone Read the Fine Print? Consumer Attention to Standard Form Contracts (New York University Law and Economics Working Papers, Working Paper No. 195, 2014), available at http://lsr.nellco.org/nyu_lewp/195/, archived at http://perma.cc/YW5C-2KHJ (finding that only one or two in one thousand, or 0.02%, of online shoppers spends at least one second reading end user license agreements).

145. Frederic M. Bloom, Information Lost and Found, 100 CAL. L. REV. 635, 675 (2012) (finding that “people prefer information ease to information quality—that they choose less useful but more accessible information over higher value facts that are harder to find”).


147. See supra Part I.C.


149. See supra Part II.A.
A more recent theory suggests that there are so many mandated disclosures that consumers are suffering from information overload, making them worse off than if no disclosure was required at all.150 Contracts are too long, this theory suggests, because of all of the information Congress requires companies to tell consumers.151 Consumers cannot process all of the required disclosures.152 So, mandatory disclosure regimes harm the very consumers that they are designed to protect.153

This theory reaches the correct conclusion, but for the wrong reasons. Mandatory disclosure can lead to information overload. It is failing its objectives. However, mandatory disclosures are not the sole—or even the primary—cause of the plethora of information that overwhelms consumers.154 Instead, corporate strategy in the form of information flooding is a key driver of overload.155 Scholars have confused the correlation between mandatory disclosures and information overload as being causal.

This Article argues that the failure of mandatory disclosure is caused by corporations’ ability to innovate around disclosure laws as soon as they are passed.156 Companies dynamically respond to mandatory disclosures by deliberately overwhelming consumers with too much information. Strategic corporate behavior, not legislation, drives companies to dump information on consumers.157 Firms with bad performance drown out competitors’ good performance.158 When faced with so much information, consumers cannot

150. See BEN-SHAHAR & SCHNEIDER, supra note 4, at 666-79 (examining the harm that mandated disclosures, and the information resulting therefrom, have inflicted on consumers across a wide array of industries).
151. Id. at 661 (describing the significant amount of information that Congress requires hospitals and healthcare facilities to provide to patients).
152. See Bloom, supra note 145, at 675.
153. See BEN-SHAHAR & SCHNEIDER, supra note 4, at 666-79.
154. See supra Part I.A.
155. See supra Part I.A.
156. The key role of corporate behavior in fostering information overload has been overlooked because scholars are looking at the content of contracts rather than at the interplay between firms within an industry. Looking more broadly to how firms compete within a market shifts the blame from regulators developing mandatory disclosures to firms seeking to “one-up” one another in a quest for profitability. Mandated disclosures may encourage companies to flood consumers even more, but information overload can and does exist in contexts without mandated disclosures.

Given this, solutions aimed at improving or reducing mandatory disclosures may be necessary, but they are certainly not sufficient. Effective solutions must incorporate an understanding of corporate behavior as a key contributor to information overload.
157. See Siebecker, supra note 102, at 131-32 n.60 (implying that firms act in bad faith to dump information on consumers, undermining adequate understanding and increasing costly efforts to wade through data dumps).
158. See id. at 132-33 (noting that even corporations acting in good faith “might opt for excessive disclosure, because [they] . . . ‘face a dilemma: Too often they just don't know what they know. And when they do, they don't know what to share’”).
distinguish the good from the bad. Purchasing decisions, therefore, do not reflect
the choices consumers would make if they understood their options.

C. Flooding as a Dynamic Response to Mandated Disclosures

Ironically, the very laws designed to promote consumer choice actually promote information flooding. Laws requiring mandated disclosures ossify as soon as they are made.\(^{159}\) Companies can respond dynamically, in real time. They quickly innovate around disclosure laws. They undermine the salience of disclosures by burying them in junk information.\(^{160}\) To demonstrate firms’ adeptness at employing flooding as a dynamic response to mandatory disclosures, this Article explores two doctrines that have emerged in debt collection and shareholder disclosures. In each context, mandatory disclosures encouraged firms seeking to hide bad facts to flood consumers with overwhelming amounts of information.

1. Overshadowing.—Debt collectors enslaved, imprisoned, and indentured debtors for thousands of years.\(^{161}\) America eventually abolished debtors’ prisons and servitude, but debt collection practices have remained harsh.\(^{162}\) People who fell on hard times lost their homes and belongings to unscrupulous debt collectors.\(^{163}\) In 1976, Congress sought to curb abusive debt collection practices by passing the Fair Debt Collection Practices Act (“FDCPA”).\(^{164}\) The FDCPA centered on mandatory disclosures designed to give debtors information that they needed.\(^{165}\) Debt collectors were required to send delinquent debtors a letter outlining key facts about the debt and debt collector.\(^{166}\)

\(^{159}\) Pierce, \textit{supra} note 7.

\(^{160}\) Donald C. Langevoort, \textit{Toward More Effective Risk Disclosure for Technology-Enhanced Investing}, 75 WASH. U. L. REV. 753, 759 (1997) (noting that “the more information there is[, ] the more each bit of it is diluted. The immediate and salient crowds out the less attention-grabbing”).


\(^{163}\) The canonical contracts case, \textit{Williams v. Walker-Thomas Furniture Co.}, 350 F.2d 445 (D.C. Cir. 1965), involved a woman losing her household furnishings because of an unpaid debt.


\(^{166}\) The plain language of the FDCPA required debt collectors to provide specific information to a consumer when attempting to collect a debt: (1) the amount of the debt; (2) the name of the creditor; (3) that the debt will be assumed valid if not disputed after thirty days; (4) that the debt collector must obtain verification of the debt within thirty days if it is disputed; and (5) that the
Soon, debt collectors began “overshadowing” the disclosure by burying it in long, meaningless boilerplate language (a form of information flooding).167 Debt collectors were required to include the disclosure, or face legal penalty.168 But, the mandated disclosures were actually harmful to debt collectors. Collectors’ obscuring the disclosure about debtors’ legal rights made debtors more vulnerable to abusive collection practices and more likely to pay fraudulent debts.169

To minimize the effectiveness of the disclosure, collectors buried it in irrelevant information.170 One debt collector buried the disclosure on page eight of a sixteen-page letter.171 Another included the disclosure in small, light grey font at the end of an information-rich document.172 Debt collectors guessed that many debtors would not sift through junk information to find the disclosure. The junk information overshadowed, or overwhelmed, the salience of the disclosure.173 Information flooding allowed debt collectors to satisfy the letter of law for the Fair Debt Collection Act while destroying its intent.

Courts and Congress tried repeatedly to improve the disclosure. Judge Posner created a sample letter that debt collectors could use as a “safe harbor” to protect against claims of overshadowing.174 Many debt collectors chose to risk legal liability for overshadowing rather than to use the form letter.175 They continued to overwhelm consumers with information. Others used Posner’s

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167. Savino v. Computer Credit, Inc., 164 F.3d 81, 85 (2d Cir. 1998) (clarifying that “[a] debt collection notice is overshadowing or contradictory if it fails to convey the validation information clearly and effectively and thereby makes the least sophisticated consumer uncertain as to her rights”).


169. See Halpern, supra note 161 (discussing the potential for corruption that surrounds debt collection practices).

170. See Savino, 164 F.3d at 85 (holding that “a debt collection notice is overshadowing or contradictory if it fails to convey the validation information clearly and effectively and thereby makes the least sophisticated consumer uncertain as to her rights”); Adams v. Law Offices of Stuckert & Yates, 926 F. Supp. 521, 527 (E.D. Pa. 1996) (noting that “extraneous language is considered overshadowing or contradictory if it would cause the least sophisticated debtor to become confused or uncertain as to his rights under the FDCPA”).


173. Russell v. Equifax A.R.S., 74 F.3d 30, 35 (2d Cir. 1996) (holding that “there are many cunning ways to circumvent [section] 1692g under cover of technical compliance”).

174. Bartlett v. Heibl, 128 F.3d 497, 501-02 (7th Cir. 1997) (providing a sample letter that debt collectors could use as a safe harbor from FDCPA claims).

175. Zemeckis v. Global Credit & Collection Corp., 679 F.3d 632, 635-37 n.1 (7th Cir. 2012) (noting that the letter at issue did not follow the Bartlett form but was instead virtually indistinguishable from a letter found not to display overshadowing, despite its having the mandated notice on the back of the letter and extraneous words in red font on the front of the letter).
letter, but stuffed the envelope containing the letter with extraneous documents.\footnote{Russell, 74 F.3d at 35 (noting that “[i]t is not enough for a debt collection agency simply to include the proper debt validation notice in a mailing to a consumer—Congress intended that such notice be clearly conveyed”).}

Congress later amended the Act to prohibit overshadowing.\footnote{See 15 U.S.C. § 1692g(b) (2013) (as amended by the Financial Services Regulatory Relief Act of 2006, Pub. L. No. 109-351, § 802(c), 120 Stat. 1966, 2006-07 (2006)) (providing that “[a]ny collection activities and communication during the 30-day period may not overshadow or be inconsistent with the disclosure of the consumer’s right to dispute the debt or request the name and address of the original creditor”).} The 2006 Financial Services Regulatory Relief Act explicitly prohibited the practice.\footnote{Financial Services Regulatory Relief Act of 2006, Pub. L. No. 109-351, § 802(c), 120 Stat. 1966, 2006-07 (2006).} This did not work either.\footnote{Halpern, supra note 161 (detailing the abusive practices of modern debt collection).} Debt collectors circumvented the problem by having debtors sign pages of notices in collection offices.\footnote{Id.} Information flooding worsened in response to each reform of the original mandatory disclosure.\footnote{Id.} In the bigger picture, debt collection practices have become increasingly abusive since the passage of the 1976 Act.\footnote{Id.} De facto debtor prisons have even returned to the United States for the first time since the Colonial Era.\footnote{Return of Debtors’ Prisons, N.Y. TIMES (July 13, 2012), http://mobile.nytimes.com/2012/07/14/opinion/return-of-debtors-prisons.html, archived at http://perma.cc/VV2U-RUU3 (critiquing the emergence of modern-day equivalents to debtor prisons).} Mandated disclosure designed to curb abusive debt collection failed miserably, despite several reform attempts.\footnote{Halpern, supra note 161 (detailing the abusive practices of modern debt collection).} Information flooding, the natural response to these laws, is a leading cause of that failure.\footnote{Id.}

Judges and legislators argued that the reason information flooding harmed debtors was because they were a particularly vulnerable group.\footnote{Adams v. Law Offices of Stuckert & Yates, 926 F. Supp. 521, 527 (E.D. Pa. 1996) (noting that “extraneous language is considered overshadowing or contradictory if it would cause the least sophisticated debtor to become confused or uncertain as to his rights under the FDCPA”).} Delinquent debtors, they posited, were particularly susceptible to the harmful effects of information overload.\footnote{Id.} Courts employed a “least sophisticated debtor”\footnote{Id.} or “unsophisticated debtor” standard.\footnote{Id.} Little did they know that judges were
contemporaneously holding that sophisticated corporate shareholders were also confused by information flooding.190

2. Buried Facts Doctrine.—The Great Depression destroyed public confidence in the stock market.191 By extension, the market itself was failing.192 To rebuild exchanges, Congress began requiring publicly traded corporations to publicly release material information to shareholders.193 This mandatory disclosure regime was designed to restore public confidence in the failed stock market.194 It was heralded as expanding shareholders’ access to information.195 A series of acts provided a “floor” of information—companies could choose to disclose more, but were required to disclose a minimum amount of information to trade on public exchanges.196 Shareholders could rely on mandatory disclosures to evaluate firm performance and decide whether to buy or sell stock.197

Corporate executives were in a difficult position; if they disclosed bad information about performance, shareholders would sell their stock, driving stock prices down.198 If executives did not disclose poor performance, they were subject to legal penalties for violating the Act.199

Like debt collectors, corporate executives responded to information-forcing mandated disclosures by information flooding.200 They hid bad facts about

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192. Id.

193. Corporate disclosure requirements were created by the Securities Act of 1933 and the Securities Exchange Act of 1934. See Monsma & Olson, supra note 191, at 1454-46.

194. Id.


196. Sulkowski, supra note 76, at 479-80.

197. Id.

198. Siebecker, supra note 102, at 131-32 n.60.

199. Monsma & Olson, supra note 191, at 196-98.

corporate performance. One company placed a bolded statement on page two of a 200-page document stating that a transaction was fair. Appendices near the end of the document contradicted the statement, disclosing that the directors had conflicts of interests and that the investment advisors were not independent. Another company stated at the beginning of a report that a proposed tender offer would give shareholders similar voting rights. The last page of the document stated that acceptance of the tender offer would significantly dilute those rights. Companies were information flooding—burying bad facts in lots of distracting, irrelevant information. Courts began cracking down on the practice in the 1970s. Judge Friendly admonished firms that, with regard to financial statements, “it is not sufficient that overtones might have been picked up [only] by the sensitive antennae of investment analysts.” The “buried facts doctrine” held that companies could not hide important information in the middle of lengthy documents.

In the wake of the most recent financial crises, Congress passed additional mandated disclosures and reformed existing disclosure requirements. Companies are now required to disclose more, but continue to bury information. Yet, interestingly, financial markets continue to function relatively well, unlike debt collection practices. The reasons for this contrast are explored in Part III, which credits the “sensitive antennae of investment” analysis Judge Friendly mentioned as key to counteracting the harmful effects of information flooding.

These examples illustrate that mandated disclosures open the floodgates of

201. Id.
203. Id. at 1349 (noting that material facts “although disclosed, were not fully, fairly and adequately disclosed in that they are insufficiently brought to the shareholder’s attention, especially in light of the length, complexity and detail of the Explanatory Statement and Appendices”).
205. Id.
206. See Paredes, supra note 54, at 430.
208. Id.
209. See cases cited supra note 200; see also Kohn v. American Metal Climax, 322 F. Supp. 1331, 1349 (E.D. Pa. 1971) (noting that material facts “although disclosed, were not fully, fairly and adequately disclosed in that they are insufficiently brought to the shareholder’s attention, especially in light of the length, complexity and detail of the Explanatory Statement and Appendices”).
211. Id.
212. Paredes, supra note 54, at 430.
information, but has no mechanism for shutting them when “enough” information is issued.\textsuperscript{214} Once laws requiring disclosure are passed, they instantly ossify.\textsuperscript{215} Companies innovate around the disclosure laws, finding clever ways to technically satisfy the disclosure requirement but undermine its intent.\textsuperscript{216} So, why don’t we just fix mandated disclosures to account for firms’ dynamic responses?

\textbf{D. The Reform Myth}

Speaking publicly about the shortcomings of mandatory disclosures invariably prompts an audience member to raise her hand and ask, “But what about nutrition labels? Aren’t they working? I read them every day. Let’s do more regulation like that.”

Nutrition labeling regulations, requiring food manufacturers to place labels on packaged food, are the poster child of the mandated disclosure reform movement.\textsuperscript{217} They reflect a reform of mandated disclosure, called “smart disclosure.”\textsuperscript{218} Smart disclosure tells companies not only what to disclose, but how to disclose it.\textsuperscript{219} It requires standardized reporting, designed to increase consumer understanding and diminish corporate chicanery.\textsuperscript{220} Smart disclosure is a regulatory response to the kinds of flaws in information flooding that courts identified with debt collection practices\textsuperscript{221} and the buried fact doctrine\textsuperscript{222} in the 1970s. Nutrition labels, Energy Star labels, and cigarette warnings are examples of much-heralded reformed disclosures.\textsuperscript{223} Unfortunately, making mandated disclosures smarter has largely failed.

In 1990, Congress began requiring nutrition labels on packaged foods.\textsuperscript{224} Giving consumer information, advocates promised, would help them make smarter choices.\textsuperscript{225} At that time, not a single state had an obesity rate greater than

\begin{itemize}
  \item \textsuperscript{215} Pierce, \textit{supra} note 7.
  \item \textsuperscript{216} Siebecker, \textit{supra} note 102.
  \item \textsuperscript{217} C. Moorman, \textit{A Quasi Experiment to Assess the Consumer and Informational Determinants of Nutrition Information Processing Activities: The Case of the Nutrition Labeling and Education Act,} 15 J. PUB. POL’Y & MKTG. 28 (1996) (describing nutrition labeling regimes).
  \item \textsuperscript{218} Sunstein, \textit{supra} note 2, at 1383 (defining “smart disclosures” as “the timely release of complex information and data in standardized, machine readable formats in ways that enable consumers to make informed decisions”).
  \item \textsuperscript{219} Id.
  \item \textsuperscript{220} Id.
  \item \textsuperscript{221} Halpern, \textit{supra} note 161 (detailing the abusive practices of modern debt collection).
  \item \textsuperscript{222} See supra Part II.C.2.
  \item \textsuperscript{225} JEBARAJ ASIRVATHAM ET AL., \textit{DID IMPLEMENTING NUTRITION LABELING AND EDUCATION}
fifteen percent. Twenty years later, nutrition labels are ubiquitous. Over half of consumers claim to read them before purchasing a new food. Yet, the problem that the labels were designed to solve—promoting healthy food selection to reduce obesity—has worsened. In 2010, forty-eight states reported obesity rates of thirty percent or higher. Obesity is a multifaceted challenge driven by a dizzying array of factors. But, clearly, mandated disclosure in this area failed to deliver what it promised to achieve.

Companies responded to nutrition labels by plastering health claims on the front of food packaging. Terms like “low-fat” and “multi-grain” were written in big, bright letters on foods. The idea was that consumers would focus on the bright claim rather than turning the box around to read the dull, black-and-white nutrition label on the back of the box. Companies also innovated by creating 100-calorie snack packs of unhealthy foods. Refocusing calorie-conscious consumers from nutrition labels to the calorie count of snack packs could prompt even calorie counters to eat mini Oreos. Just like debt collectors and corporate executives, food manufacturers flooded consumers with information to hide bad facts in the required disclosure of a nutrition label.

The failure of mandated disclosures and smart disclosures rests in the same


228. Id.


230. Id.


233. Timothy Muller, Structural Information Factors which Stimulate the Use of Nutrition Information: A Field Experiment, 22 J. MKTG. RES. 143 (1985).

234. Id.

235. Id.

236. For an overview of the intentionally deceptive practices of food manufacturers, see FED UP (Stephanie Soechtig Production 2014) (overviewing the role of the food industry in aggravating America’s obesity epidemic).

237. Id.

238. Id.
explanation.239 Consumer understanding is limited.240 Hitting the sweet spot of enough but not too much information is a difficult proposition.241 Even if regulators get it right, companies with facts to hide will intentionally overwhelm consumers.242

Revisiting the consumer understanding curve illustrates that regulators establish a floor of information that companies cannot dip beneath.243 They must provide some baseline level of understanding.244 What mandated disclosure does not do is provide a maximum amount of information that companies can provide.245

Companies understand information overloads.246 Those with good performance will attempt to hit the sweet spot of consumer understanding, so consumers can comprehend their positive message.247 Companies with bad facts will seek to bury the disclosure in so much information that consumers cannot discern the bad facts of the disclosure.248

1. De-biasing.—Others have tried to make the salience of mandatory disclosures more powerful by educating customers.249 Customers can be taught to look for key metrics and dismiss other information.250 Theorists argue that good corporations, nongovernmental organizations, and lead users will de-bias consumers from misleading claims.251 Misinformation in the market will naturally be corrected overtime.252 For example, customers can be taught that CO₂ emissions are the primary measure for evaluating shipping companies’ environmental performance. Educated customers will locate and evaluate all companies based on that measure and block out junk information.253 De-biasing sounds good in theory, but it rarely works in practice.254 Even educated consumers can only process so much; education shifts their processing abilities up, but not infinitely.255
Educating consumers is also extremely costly. Choosing the “right” metrics for a specific space is subjective and difficult. For example, convincing consumers to care about CO2 emissions for shipping companies—as opposed to other worthy social issues—requires issue trumping other demands on their time. Is CO2 the right measure of evaluation? Labor conditions or safety records may be equally valid metrics.

On the other hand, it is cheap and profitable for companies to send confusing and overwhelming messages to consumers. This is likely why a growing body of recent scholarship demonstrates that it is simply not worth it for “good” companies to de-bias customers. Instead of fighting information flooding by competing firms, they just give up. For these reasons, increasing consumer cognition is a losing battle in information flooding reform.

2. Setting Information Ceilings.—Sometimes, mandatory disclosure works. Anti-smoking campaigns are an attempt to encourage consumers to make better-informed decisions about smoking. Mandated disclosures required cigarette manufacturers to place prominent disclosures on their packages (an example of smart disclosures). Advertising campaigns sponsored by the American Heart Association educated customers about the harms of smoking. In a virtually unprecedented step, cigarette companies were prevented from adding countervailing information into the conversation. They could not advertise, or flood consumers with positive messages. This three-part campaign was largely successful in changing social norms of smoking.

Limiting messages from cigarette companies to consumers carried tremendous political costs. First Amendment concerns abounded when Congress attempted to prohibit corporate speech. The reform was, however,
likely the game-changing step in changing consumer norms surrounding smoking. Compare anti-smoking and anti-obesity campaigns. Creating information ceilings—which prevent cigarette companies from flooding consumers—was likely a key difference in the wildly different outcomes of these campaigns. Food manufacturers can continue to innovate around disclosures by adding noise to the conversation. Cigarette manufacturers could not.

This is not to suggest that limiting corporations’ ability to advertise is necessary, or even desirable. Recent advances in First Amendment rights of corporations may even render such efforts dead on arrival. But, it highlights that as long as companies can respond to information disclosures and de-biasing, they will quickly innovate around mandatory disclosure designed to protect consumers.

Regulators are caught in a bad relationship with mandated disclosure. Legal thinkers seem to reason if we just regulate better, we can solve information overload. Even people skeptical of mandated disclosures have focused on making disclosures “smarter” instead of giving up on them all together. Paradoxically, the more we regulate, the greater information overload becomes.

However, there is a more effective solution. Innovations on the demand side of the market, combined with well-targeted policy goals, can expand consumer choice and improve markets. Understanding information flooding shapes the conversation in this direction and empowers us to provide solutions based on a new understanding of firm behavior in the marketplace.

III. INFORMATION INTERMEDIARIES

Average people overcome information flooding every day. Vast industries have popped up to fight information flooding. Companies including Google, Amazon, and Whole Foods have made billions by distilling areas affected by information flooding into manageable amounts of information that consumers care about. This Article terms such mediators of information as “information intermediaries.” There is a market to protect consumer choice.

270. Sunstein, supra note 2, at 1378.
271. Id.
272. Id.
273. Sunstein & Vermeule, supra note 265.
274. Siebecker, supra note 268, at 252-57.
275. Id.
276. Gabai & Laibson, supra note 42.
277. Sunstein, supra note 2.
278. See Ripken, supra note 190, at 185-90.
279. SEARLS, supra note 10.
280. Id.
281. The role of intermediaries in creating transparency is the subject of discussion in international law. See David Gartner, Uncovering Bretton Woods: Conditional Transparency, the
solutions to information flooding abound. Many work quite well. But, intermediaries can themselves overwhelm consumers with information, or even be captured. 283 Sometimes, politicians fail to recognize that intermediaries are working and create duplicative mandated disclosures despite them. Leveraging these solutions in troubled areas provides a better alternative to mandatory disclosure regimes.

A. Information Intermediaries

A secret to navigating information-rich fields is the assistance of “information intermediaries.” 284 Transactions occur between a buyer and seller. Information intermediaries facilitate transactions on behalf of the buyer. 285 Information flooding creates a mismatch between what a consumer wants to know and what a firm communicates. 286 Information intermediaries solve this problem by sifting through seas of information provided by firms to identify the characteristics that consumers care about. 287 They save consumers the work and frustration of sifting through irrelevant information. 288

Real estate brokers are an example of an information intermediary. 289 Landlords may flood listings with flattering pictures and too-good-to-be-true descriptions to lure renters into seeing their listings. This is information flooding. 290 Brokers act as an information intermediary to guide renters through the overwhelming sea of information of what is available on the market and to connect them with the housing that they want. 291 Brokers do not show clients every listing available.292 Brokers sort through the sea of available listings to

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282. SEARLS, supra note 10, at 178.
284. Id.
285. Id.
286. Paredes, supra note 54.
287. Id. at 432 (“Realistically, few people expect the ‘average’ individual investor to focus on any detail of the information that companies disclose. As a practical matter, a company’s disclosures are largely ‘filtered’ through experts—various securities professionals and financial intermediaries—who research and process the information and whose trades and recommendations ultimately set securities prices.”).
288. Id.
290. Jacoby, supra note 16.
291. Mohr, supra note 289.
292. Id.
find the units that match the clients’ needs. Just like a broker helps a client find a building, digital information intermediaries also help consumers meet their needs without becoming overwhelmed by options. Information intermediaries satisfy a valuable social function by providing comprehensible sets of information in areas where consumers otherwise can be duped because they are overwhelmed. Apps, certifications, and specialized stores are modern examples of information intermediaries. Companies profit by helping consumers navigate information-flooded areas. Information intermediaries filter information flooded realms and deliver the relevant bits to consumers. Delivery of important information and omission of informational junk help consumers make decisions. Information intermediaries provide the best hope for counteracting information flooding. They can improve consumer choice and correct market distortion.

B. Information Intermediaries in Practice

Google, Amazon, and Whole Foods do not make money simply by returning search results or selling groceries. Many companies providing these services have gone out of business. The value-added of successful consumer-driven companies is sifting through vast amounts of information to give consumers what they want with little effort. Each of these companies is an information intermediary. They make money by promoting consumer choice by counteracting information flooding.

Modern companies are replicating age-old intermediary functions—like the services that real estate brokers provide—to provide consumers with tools to fight information overload. Information intermediaries are better at gathering

293. Id.
294. Id.
295. Paredes, supra note 54, at 432.
296. Id.
297. Id.
299. See id. (describing Whole Foods as appealing to consumers by providing environmentally friendly products and practices so that customers do not have to do the research to find such products); SEARLS, supra note 10, at 100-01, 178 (noting the rise of information providers through the internet).
300. Johnston, supra note 298; SEARLS, supra note 10.
301. Johnston, supra note 298; SEARLS, supra note 10.
information than most individual consumers. They have access to information and can gather, organize, and analyze it quickly. They winnow the information to present customized recommendations to a consumer, based on her preferences. Intermediaries hand consumers easy-to-understand, relevant bits of information in convenient formats.

Lawyers are a classic example of information intermediaries. They mediate the complex and information-rich landscape of law on behalf of clients. Similarly, accountants navigate notoriously difficult tax codes, and doctors mediate constantly evolving information about drug safety. Consumers can outsource understanding of medicine, law, and the tax code to doctors, lawyers, and accountants.

Lead users are a modern example of lawyer-like intermediaries. They are sophisticated technological consumers who translate privacy policies and troubleshoot for other users. When one posts a question about a broken laptop in an online forum, lead users are the people who will post helpful replies. They are especially useful in technological realms, like software agreements and privacy policies. Lead users recently caught unadvertised changes to Facebook’s privacy policy. They brought the changes to the publics’ attention, leading the company to change its policy.

Stores can also serve as information intermediaries. Whole Foods has built an empire selling premium products with green or ethical attributes at high prices. A Whole Foods customer can buy any product in the store with the

303. See Searls, supra note 10, at 100-01, 178 (noting the growing industry of fourth party information providers).

304. See, e.g., id. at 204 (describing how TripEase knows a consumer’s travel preferences and uses them to help the consumer purchase accommodations).

305. Paredes, supra note 54, at 432.

306. Id.


308. Id.


311. Id.

312. Id. at 332.

313. Id.


315. Id.

316. See Johnston, supra note 298.

317. Id. at 230-31 (describing Whole Foods as appealing to consumers by providing environmentally friendly products and practices).
assurance that it has been screened according to ethical food standards. A consumer who cares about buying “green” eggs can lessen the confusion of competing claims by simply shopping at Whole Foods. In exchange for a price premium, she knows her preferences are satisfied.

Technology has exacerbated information flooding, but it has also provided solutions to expand consumer choice. Two decades ago, few consumers could afford personal shoppers. A personal shopper is an information intermediary—considering many goods but returning those that meets a consumer’s preferences. Personal shoppers may save consumers time and money.

Technology has translated the convenience of personal shoppers to the masses. Shopittome.com allows consumers to enter their preferences of clothing designers and sizes one time to receive daily emails offering discounted options across an array of merchants. Shopittome.com is also an information intermediary because it combs the information-overloaded sphere of shopping websites to provide personalized summaries of goods on the consumers’ request. Some markets for relatively idiosyncratic goods, like that for used books, have been utterly transformed. At one time, a person searching for a book had to visit multiple bookstores to locate a hard-to-find title. Online used booksellers like AbeBooks, eBay, and Amazon have transformed the market by successfully pairing buyers and sellers.

Other examples of intermediaries abound. Financial websites Mint.com and Billshrink.com process consumer financial data compiled from multiple savings, checking, and credit card accounts to inform consumer finance decisions, such as which cellular telephone package best suits their calling data at the most affordable price or how to reduce monthly spending. Travel website Kayak.com culls hundreds of airlines, car rental companies, and hotels to present consumers with options that meet their needs, sortable by price, brand,

318. Id. at 255.
319. Id. at 239.
320. Id. at 255.
322. Id.
323. Id.
326. I am indebted to John Nagle for this example.
329. See, e.g., How Mint Works, supra note 9.
and date.\textsuperscript{330} There are countless examples of information intermediary websites and apps.

Of course, there is the risk that intermediaries will provide consumers with false or bad information.\textsuperscript{331} Information intermediaries make money doing a good job giving consumers what they want.\textsuperscript{332} Quality, objective guidance is rewarded through future business.\textsuperscript{333} As a result, consumers feel relatively confident that they will receive adequate service at a hotel that is rated well on Trip Advisor, a restaurant with a five star rating on OpenTable, or the hair salon with a four star review on Yelp.\textsuperscript{334} Disappointed consumers can leave feedback, improving the ranking for the next user.

Captured intermediaries are also a concern.\textsuperscript{335} If companies buy off trusted intermediaries, consumers suffer. Some businesses post signs offering $20 discounts to customers who write positive Yelp reviews.\textsuperscript{336} Yelp does not always respond to reports or concerns about such abuse, and this raises the question of whether companies that advertise with them get preferential treatment.\textsuperscript{337} Suspicion abounds that search engines favor some businesses by placing them higher in the search results. Consumers will likely identify abuses and punish captured intermediaries over time. They will shift from less credible to more credible websites.

\section*{C. The Role of Law in Managing Information}

Remember that the debate about how best to expand consumer choice centers on the dichotomous divide between free markets and consumer protection regulation.\textsuperscript{338} This debate is not resolved by information flooding and the intermediaries that mitigate its effects. This analysis opens the doors to new solutions to promote consumer choice, focused on leveraging intermediaries.

\begin{itemize}
\item \textsuperscript{331} This risk has been discussed at length in the context of certifiers acting as intermediaries on behalf of consumers. Schulz, \textit{supra} note 137, at 2515; Jamie Grodsky, \textit{Certified Green: The Law and Future of Environmental Labeling}, 10 YALE J. REG. 147, 151 (1993) (noting that “proliferation of competing certification programs and product evaluation criteria could amplify consumer confusion, the very problem these programs were designed to combat”).
\item \textsuperscript{332} Onnig H. Dombulagian, \textit{Regulating Informational Intermediation}, 1 AM. U. BUS. L. REV. 59, 80-81 (2012).
\item \textsuperscript{333} \textit{Id.}
\item \textsuperscript{335} Zarokian, \textit{supra} note 283.
\item \textsuperscript{336} \textit{Id.}
\item \textsuperscript{337} \textit{Id.}
\item \textsuperscript{338} Part II.A.
\end{itemize}
The first question is when the government should intervene in stopping information flooding, if at all.

Markets have popped up to protect consumers from information flooding. Information intermediaries are expanding consumer choice. This begs the question of whether there is any need for government involvement to “fix” information flooding.

Revisiting the examples of information flooding presented in Part II provides some principles for when intervention is necessary. Where market solutions work well, there is little need for intervention. Markets likely fail, however, to meet the needs of consumers who cannot pay for intermediaries. They may also lead to underinvestment in products that provide secondary public goods, like green products or food safety. In these instances, public policy may encourage intervention.

Corporate shareholders, for example, are more likely to be adequately protected. Wealthy investors can and do pay for sophisticated intermediaries to process information on their behalf. Money managers sift through corporate disclosures with great attention to detail. This is likely why the buried facts doctrine has popped up a few times over the years, but is not an ongoing source of litigation. As a default assumption, market solutions will pop up to protect consumer choice.

Sometimes, however, market solutions do not work. Debt collection practices have become more draconian since the overshadowing cases. Delinquent debtors can ill afford intermediaries to process information on their behalf. Because there is little money to be made in servicing this group, information intermediaries have been slow to enter the space.

Markets are slow to respond to socio-economically disadvantaged buyers, like delinquent debtors or students considering college loans. Economically disadvantaged buyers likely cannot pay for the service of information intermediaries and are not attractive to advertising revenue on which some information intermediaries rely. This may be a case in which the government must counteract sellers’ use of information flooding.

It is, of course, debatable whether interventions about consumer protection

339. Church, supra note 72, at 272-73.
340. Paredes, supra note 54, at 431.
341. Id.
342. Id. at 431-32 (“Realistically, few people expect the ‘average’ individual investor to focus in any detail on the information that companies disclose. As a practical matter, a company's disclosures are largely ‘filtered’ through experts—various securities professionals and financial intermediaries—who research and process the information and whose trades and recommendations ultimately set securities prices.”).
343. See supra Part II.C.
344. Id.
345. Id.
346. Id.
347. Id.
for the socioeconomically disadvantaged are useful. This Article does not resolve that debate. But, to the extent that democratic will pushes towards intervention, such efforts would not be duplicative of market abuses.

Another case for government intervention arises in the case of products that produce public goods. Green goods, for example, produce diffuse, widespread social benefits, including reduced carbon emissions, ethical treatment of animals, and fewer pesticides in crop production. There is a strong consumer demand for green products. Yet, the market for green goods has become a market for lemons because of information flooding. Untrusting consumers systemically under-invest in green goods relative to their own preferences and also with regard to public goods. Intervention may be necessary to promote public goods associated with environmentally friendly products. Mandatory disclosure has failed to fix market distortion in green products. A public good, strong will for change, and the ineffectiveness of mandatory disclosure make green markets a prime candidate for intervention.

Finally, intervention might be justified for extremely important, high-priority preferences widely held by a majority of people. The public expects the government to provide safe markets for food and drug safety, for example. In such high-stakes markets—where the cost of consumer mistakes can be deadly—the government may be expected to distinguish safe and unsafe products to guard against consumer mistakes. We trust government, rather than private intermediaries, to be especially credible in certain high-stakes fields.

This section has sketched out a few examples of when government intervention makes sense for information flooding. Now, we turn to how government intervention can work.

349. Church, supra note 72, at 273-77.
350. Id.
351. See Kysar, supra note 57, at 626 n.427 (noting that greenwash has transformed the market for sustainably-produced goods into a market for lemons in which misrepresentations rather than legitimate, accurate information predominates).
352. See Menell, supra note 69, at 1445 (suggesting that market regulation of green goods is likely insufficient).
353. Id.
355. Id.
356. Id.
D. The New Governance Approach to Expanding Consumer Choice

In 2009, a research branch of the Department of Defense conducted an experiment designed as a prize competition.\textsuperscript{357} It released ten red weather balloons in secret locations throughout the United States and offered $40,000 to the first team that provided accurate geographical coordinates for all ten balloons.\textsuperscript{358} The Department of Defense anticipated releasing the balloons in the same locations every day for a week.\textsuperscript{359} But, within nine hours of the contest starting, a team located all ten balloons using social media and sharing rewards with participants around the country.\textsuperscript{360} The Department of Defense was shocked by how quickly civilian crowd-sourcing located the balloons.\textsuperscript{361}

Chasing weather balloons is hardly the only government incentive program to spur private action. Farm subsidies encourage production of certain crops.\textsuperscript{362} Grants fund research in designated areas.\textsuperscript{363} Low-interest educational loans and tax breaks encourage college attendance.\textsuperscript{364} The government knows how to incentivize private action.

Incentivizing intermediaries provides a powerful alternative to mandated disclosures to promote consumer choice in problem areas. Government can encourage market solutions to resolve information flooding. Just like prize money incentivized teams to locate weather balloons, financial incentives will also encourage entrepreneurs and businesses to provide information intermediary functions. Public-private approaches are one way to resolve problematic areas of information flooding.\textsuperscript{365} New governance is an emerging\textsuperscript{366} regulatory strategy.
that emphasizes a blend of public and private solutions. It captures the flexibility and adaptive nature of the markets while preserving the order provided by traditional state governance. New governance approaches are particularly well suited to issues, such as information flooding, in which corporate behavior quickly adapts around laws that ossify as soon as they are made.

Leveraging information intermediaries is the core of this approach. Although they generally work well, information intermediaries are failing to protect some consumers and promote some public goods. Information flooding is winning sometimes, to the detriment of consumers and society.

Legislators and agencies can leverage information intermediaries to provide services in high-value or underserved areas in three ways: (1) subsidizing private intermediaries; (2) providing free data to intermediaries in easily usable formats; and (3) acting as an intermediary.

First, subsidies preserve the benefits of mandated disclosures—they too are easily administrable, relatively low-cost, and politically feasible. Subsidies could operate as a prize competition, a grant, venture capital, or a contract. Information intermediaries could include private technology companies or nongovernmental organizations.

Agencies are relatively ill-suited to provide the support consumers need to rely on information intermediaries. Answering customer complaints, providing user guides, and creating updated versions of applications are a few examples of the many ways in which technology companies may have a comparative advantage relative to agencies in producing information intermediary services.

Second, if there is a piece of information that consumers need, but cannot get, mandated disclosures can facilitate intermediaries’ job of giving consumers what they want. This functions as a non-financial subsidy. Agencies provide a service free of charge by requiring and gathering data. Making this data

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368. Id.


370. See supra notes 344-46 and accompanying text.


372. See supra Part II.C.

373. Paredes, supra note 54, at 432.

freely available encourages companies to invest in processing and translating the information for consumers, at a profit.

To promote consumer choice, disclosure data should not be targeted at the consumer. Individual consumers are a lost cause. Agencies have tried to disclose to the consumer for a long time with little impact. Individuals are not equipped to process enormous amounts of information. Well-intentioned efforts to educate and engage consumers have fallen flat. Ironically, protecting consumers requires giving up on them.

Instead of targeting data to consumers, agencies should target intermediaries. Intermediaries, in turn, will process and distill the information for the consumer. The Office of Information Regulatory Affairs has anticipated that agencies may use data sets to promote consumer decision-making. Using intermediaries to guide consumer decisions, rather than trying to prop up the consumer, will lead to better outcomes.

Third, the government may choose to act as an information intermediary in some realms. Agencies already sometimes act as information intermediaries, filtering complex information into easy-to-understand formats for public consumption. The government has historically issued a food pyramid (now plate guidelines) of what Americans should eat. It manages an energy star rating system on consumer appliances. The government has a comparative advantage of credibility and perceived neutrality. It can also force corporate participation in a way that private intermediaries cannot. These factors make it an effective intermediary in limited circumstances. Agencies should be careful, however, not to unnecessarily displace or duplicate private intermediaries that are working well. It would be nonsensical for the Department of Transportation to attempt to create a better Google Maps.

Just because this proposal relies on leveraging market solutions does not mean that law is unnecessary. Law provides a vital backstop to market-based solutions. Sellers will sometimes outpace information intermediaries’ ability

375. See supra note 10.
376. Id.
378. See Memorandum from Cass R. Sunstein, supra note 374, at 2.
379. See generally, Sunstein supra note 2.
380. Id. at 1356 (discussing federally produced food guidelines).
382. See generally Memorandum from Cass R. Sunstein, supra note 374, at 24.
384. Schulz, supra note 137, at 2550 (noting that in new governance regimes “private actors regulate firm behavior against a backdrop of limited state involvement or enforcement but parallel with existing governmental regulations on the industry”).
to protect consumers. When a company acts in bad faith—as Wells Fargo did by charging Veronica Gutierrez overdraft fees with no meaningful notice—courts can and should step in. The threat of judicial action creates a buffer of protection around consumers. It encourages better corporate behavior. It also protects against very costly consumer mistakes that result from information flooding.

This public-private approach captures the flexibility of private intermediaries and comparative skill in serving customer needs. Unlike mandatory disclosure regimes, leveraging intermediaries will not ossify. Companies cannot merely adapt around the laws. But, the threat of traditional state governance, that is courts and legislatures threatening to intervene against the worst abuses, checks corporate behavior against more blatant abuses.

IV. GOVERNMENT INFORMATION FLOODING

Information flooding is a new concept. Most of this article focuses specifically on firms flooding consumers with information. But, the idea is much bigger than that. It exists widely outside the firm-consumer model; stretching to attorneys engaging in dump truck litigation—to politicians sticking to information-dense talking points—to directing messaging to constituents away from unpopular topics.

Part IV considers information flooding in administrative law. It expands the discussion of information flooding to agencies, courts, and politicians. The players, incentives, and harms predictably vary from the firm-consumer context. But, the basic dynamic of using information to overwhelm the cognitive ability of a target is universal. This Article argues that the concepts of information flooding and information intermediaries have broad applicability to a variety of areas of law.

A. Information Flooding in Administrative Law

Information flooding in the government context is intentionally

386. Id.
388. See, e.g., id.
389. Law firms engage in information flooding to impose costs on adversaries by forcing them to sift through seas of information, as with “dump truck litigation.” See Bemont Investments, LLC v. United States, 679 F.3d 339, 345-46 (5th Cir. 2012) (noting that Deustche Bank responded to an IRS summons with two million pages of information, three of which were relevant); Richard L. Marcus, Reassessing the Magnetic Pull of Megacases on Procedure, 51 DEPAUL L. REV. 457, 471 (2001) (using the term “dump truck delivery” to describe intentional information flooding in litigation).
overwhelming a target with so much information that they cannot process it.\textsuperscript{390} It is often done to hide bad facts.\textsuperscript{391} The following presents a brief case study of agencies engaging in information flooding in environmental impact statements. This example of the practice provides a sense of the incentives, limitations, and solutions that have developed over time in a narrow context.

The National Environmental Policy Act requires every agency to prepare an Environmental Impact Statement ("EIS") for major federal action that may harm the environment.\textsuperscript{392} If, for example, the Department of Transportation wants to build a major highway, it must prepare an EIS. The EIS is designed to provide a concise but comprehensive account of the possible harms likely to occur from the action.\textsuperscript{393} It is designed so that the acting agency—along with the public, other agencies, the executive, and the courts—go through the process of evaluating the impacts, mitigation options, and alternatives to the proposed action.\textsuperscript{394} The EIS can be thought of as being analogous to a mandatory disclosure in that it is designed to publicize action and allow for public response.

Soon after the Act was passed, courts began invalidating EISs that were too short on the basis that the agency failed to study an important point.\textsuperscript{395} Agencies began flooding their EISs with so much information that they became overwhelming. Negative impacts were buried under a sea of vague, meaningless analysis—similar to the junk information in overshadowing or buried fact cases.\textsuperscript{396} Agencies were intentionally burying bad impacts in junk information.\textsuperscript{397} They were information flooding.

Firms engage in information flooding to make money.\textsuperscript{398} Secondary reasons may include gaining competitive advantages, forestalling regulation, and diffusing negative attention.\textsuperscript{399} Incentives for government information flooding are more complicated to understand. Agencies flooding EISs were trying to discourage careful scrutiny of the projects.\textsuperscript{400} Ample information served as a signal of quality of analysis to courts and potential litigants, who might otherwise bring suit against the statements as ill-considered. Some agencies wanted to make it harder for commentators to catch the worst impacts. Over-disclosing allowed them to claim that they were being transparent.

EISs are not only targeted to individual citizens. Instead, the primary

\begin{thebibliography}{99}
\bibitem{note390} Gabaix and Laibson, supra note 42, at 505-06.
\bibitem{note391} Id.
\bibitem{note392} National Environmental Policy Act, 40 C.F.R. § 1502.1 (2015).
\bibitem{note393} Id. ("Agencies shall focus on significant environmental issues and alternatives and shall reduce the paperwork and accumulation of extraneous background data. Statements shall be concise, clear, and to the point . . . .").
\bibitem{note394} Id.
\bibitem{note395} See generally id.; see supra Part II.C.
\bibitem{note396} See § 1502.1; see supra Part II.C.
\bibitem{note397} See supra Part II.C.
\bibitem{note398} See § 1502.1; see supra Part I.A.
\bibitem{note399} See § 1502.1; see supra Part II.C.
\bibitem{note400} See § 1502.1; see supra Part IV.
\end{thebibliography}
audiences are regulators, agency officials, and nongovernmental organizations. \textsuperscript{401} These entities are also subject to information overload. \textsuperscript{402} Groups may be better positioned to process information compared to consumers because of their skill and manpower. They can process more information, more quickly and with greater accuracy. \textsuperscript{403} Government resources and skill are not infinite, however. They are subject to the same time and resource constraints as consumers, with decision-to-information ratios operating along a curve. \textsuperscript{404}

**Figure 2:** Groups are better positioned to process information relative to consumers, but do not have infinite capacity to process information.

This curve is upward and to the left of the curve used for consumers, to reflect superior, although not infinite, ability to process information. Groups, too, are subject to information overload, although it takes more information to overload them because of both their superior resources and expertise. \textsuperscript{405}

Congress put an information intermediary into place to respond to information flooding in EISs. \textsuperscript{406} The Environmental Protection Agency (“EPA”) became responsible for reading and processing each EIS, regardless of which agency prepared it. \textsuperscript{407} The EPA functioned as an expert familiar with EISs. If the EPA found a particular EIS to be problematic, it could alert the Council on Environmental Quality, who could bring the problematic EIS to the attention of

\textsuperscript{401} See supra note 399.

\textsuperscript{402} See generally Paredes, supra note 54.

\textsuperscript{403} Id.

\textsuperscript{404} Id. at 454-55 (“In terms of the classic inverted-U curve of information overload studies, we could think of the curve turning down at a higher quantity of information for experts than non-experts and with a less steep slope, but it still curves down at some point.”).

\textsuperscript{405} Id.

\textsuperscript{406} See generally supra note 399.

\textsuperscript{407} Id.
the President.408

As information intermediaries, the Council on Environmental Quality and the
EPA promulgated guidelines to lessen information flooding by other agencies.409
They required that EISs “shall be analytic rather than encyclopedic,” “no longer
than absolutely necessary to comply with NEPA,” and that “impacts shall be
discussed in proportion to their significance.”410 Environmental impact
statements are limited to 150 pages in length, or 300 pages for proposals of
unusual scope or complexity.411 Setting page limits, requiring prioritization, and
emphasizing simplicity were forms of setting information ceilings to protect the
usefulness of mandated disclosures.412

B. Government Information Intermediaries

The role of the EPA is one of several examples of government relying on
information intermediaries to avoid overload. Government has developed
information intermediaries in especially information-intensive areas of
governance. Agencies, congressional committees, and special masters are
designed to protect the President, Congress, and Courts from information
flooding.413 Each of these entities processes information-dense realms, distills
findings, and makes customized recommendations based upon the expressed
preferences.414 They save higher-ups from the search costs associated with
sifting through the sea of information underlying each decision.415

Just as attorneys and doctors filter information to patients, so too do
government intermediaries sift through seas of information to facilitate better
government decision-making.416 As with intermediaries in the consumer
contexts, government agencies are also developing technological tools to develop
better decision-making. The Executive uses the content of these opinions as “fire
alarms” to alert decision-makers up the chain of command of unusual actions.417
Courts also use the opinions of expert agencies as a heuristic for gauging agency

408. Sarah Langberg, A “Full and Fair” Discussion of Environmental Impacts in NEPA EISs:
The Case for Addressing the Impact of Substantive Regularity Regimes, 124 YALE L.J. 576, 728-30
(2014) (explaining how the Council on Environmental Quality handles EISs).
410. Id.
411. Id. at §1502.7.
412. See Part II.C.2 (identifying information ceilings as one mechanism to offset information
overload).
413. See supra note 33.
414. Id.
415. Id.
Role, http://www.uaa.alaska.edu/resourcesolutions/upload/Gov%20Changing%20Role.pdf (last
417. Mathew D. McCubbins & Thomas Schwartz, Congressional Oversight Overlooked:
The media also functions as an information intermediary that guards against attempts by government entities to flood consumers with information to distract them from key issues. The media processes information issued by the government and passes along the most important bits to citizens in digestible formats. Few citizens likely read United States Supreme Court opinions. Fewer still likely keep up with the Federal Register. But most people have a sense of emerging legal issues because of television news and newspapers. Like other intermediaries, media counteracts information flooding by processing, analyzing, distilling, and presenting information to consumers.

The harmfulness of information flooding becomes ambiguous outside of the consumer context. A few examples of information flooding in government suggest that information flooding may even be a useful tool. In Bush v. Gore, the United States Supreme Court issued an unprecedented nine concurring and dissenting opinions roundly declared as incomprehensible. The Court flooded commentators with extraneous, confusing information to render the holding of limited precedential value. Some leading constitutional law scholars suggest the court did this to limit the prospective harm of the opinion. Information overload is sometimes viewed as providing a valuable social function. Recent debates over the National Security Agency’s access of telephone databases center on the inability of the agency to process all of the records available. Because the agency has limited resources and competing


420. Id.

421. As media becomes more fragmented, however, it is difficult for consumers to understand which sources to rely upon for various kinds of information. Social media may be more suitable for breaking news, whereas traditional newspapers may provide superior investigative reporting.


423. The Court also announced “[t]he consideration is limited to the present circumstances.” Bush v. Gore, 531 U.S. 98, 109 (2000). Similarly, in the death penalty case Furman v. Georgia, the Supreme Court issued a five-to-four decision in a one-paragraph per curium opinion. Each justice produced a separate concurrence, with no controlling majority opinion. Furman v. Georgia, 408 U.S. 238 (1972) (per curium).

424. See Samuel Issacharoff, Political Judgments, 68 U. CHI. L. REV. 637, 650 (2001) (describing Bush v. Gore as “the classic ‘good for this train, and this train only’ offer”).

priorities, it cannot process all of the information. In this way, as the argument goes, we are all protected against arbitrary invasions into our phone conversations.426 Interestingly, this argument is the exact opposite of those posed against information flooding in the firm-consumer model, showing the need for future scholarship of information flooding in a variety of contexts.

This brief sketch of information flooding in government demonstrates that the concept has broader applicability outside the firm-consumer model. It is one small example of information flooding in another context. Future scholarship should look for information flooding wherever information overload has been identified, including: patent litigation, election law, jury consideration, and product warnings.427 Applications of the theoretical concept of information flooding to other areas of law will likely challenge early assessments of the harm of the practice and range of available solutions. Importantly, though, information flooding holds great promise to provide new legal solutions to problems—just as it does with consumer choice.

CONCLUSION

This Article introduces the concept of information flooding, which happens when companies intentionally bury key information so that consumers cannot find it. Consumers lacking the patience and cogitative ability to sift through junk to uncover the nugget or two on which they would base a decision, if given the chance, give up on making a reasoned decision. Because they cannot locate the information key to reaching decisions that best suit them, people are arbitrarily reaching decisions not in their best interests. Burying bad facts in a sea of informational junk overwhelms consumers’ ability to find and process the bad information.

The very solution politicians have been using to stem information overload in fact makes it worse. Mandatory disclosures encourage firms to respond dynamically, by piling more information on consumers. The “fixes” to mandated disclosures—smart disclosures, de-biasing consumers, and limiting corporate

gov/sites/default/files/docs/2013-12-12_rg_final_report.pdf, archived at http://perma.cc/X5PY-5RBR (noting that its focus was on “genuinely mass collections of all undigested, non-public personal information about individuals—those collections that involve not a selected or targeted subset (such as airline passenger lists), but far broader collections”).

426. The Committee ultimately rejected this argument. Id. at 110.

speech—generally do not work. Laws ossify. Companies respond dynamically, working around legislative fixes to gain profit, forestall future regulation, and undermine competitors with superior practices. But, all is not all doom and gloom.

The very profit motive that fuels information flooding has also birthed its antidote. Intermediaries have popped up to profit from guiding consumers through information-flooded spheres. They usually work well. When there are not intermediaries in certain underserved or high-value areas, legislative response should focus on encouraging intermediaries to enter the space. Of course, this solution must operate against a backdrop of traditional law—judicial involvement and the threat of legislation—to guard against abuses that would otherwise slip through the cracks.

Information flooding is a new idea. To explain it, this Article surveyed disparate areas—from greenwashing to credit card practices, grocery stores to debt collection—to provide examples to form the firm-consumer model. But, information flooding is far more widespread than that. The final section of this piece foreshadows future research into other areas of law, in which parties other than firms are information flooding to gain competitive advantage. It highlights an example from administrative law, in which agencies flood one another to avoid potential scrutiny of new projects. Information flooding likely extends more broadly to other areas of jurisprudence and legislation.