AGAINST NOTICE SKEPTICISM IN PRIVACY (AND ELSEWHERE)

M. Ryan Calo*

This article acknowledges the defects of traditional notice as a regulatory strategy within the context of online privacy. Privacy policies do not help consumers protect themselves or police the market. The article nevertheless sees a role for information in regulating privacy and others contexts. The article argues for a pluralistic conception of notice and explores whether regulators may be committing a kind of selection error, that is, choosing the wrong form of notice for the area they are regulating. The article argues further that experience itself can constitute a new form of "visceral" or nonverbal notice with many of the advantages of classic notice and few of its drawbacks.

INTRODUCTION

Requiring notice is a popular way to regulate. And it does not work. This is a story you see again and again in the literature and policy arguments around privacy and other contexts. But it does not present the entire picture. Embedded in this dominant account are several key assumptions about the nature of regulating with information—assumptions that, upon investigation, begin to fall apart. This article advances two theses: First, that regulators can and do select the wrong form of notice for the regulatory context they are addressing. Second, that most every critique of notice assumes that notice must consist of language or its symbolic equivalent. In fact, a consumer's very experience of a website or product can constitute a kind of visceral notice not subject to disclosure's most nagging problems.

There is no shortage of literature cataloguing the erosion of privacy by the Internet and other contemporary technology.[1] Yet Internet privacy has proven a

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[1] *See, e.g.*, Daniel Solove, THE DIGITAL PERSON: TECHNOLOGY AND PRIVACY IN THE INFORMATION AGE (2004); Michael Froomkin, *The Death of Privacy*, 52 STAN. L. REV. 1461,

difficult area to regulate. Lawmakers and officials in the United States have refrained from heavy handed restrictions on the flow of information out of a fear of stifling innovation—a fear shared by academics.[2] Consumers benefit from the nonexistent or low price point of many Internet services and from the greater personalization and variety of online services.[3]

For these and other reasons, notice is one of the only affirmative requirements websites face with respect to privacy. Online privacy is the quintessential notice regime. California law and federally-recognized best practices require that a company offering an online service link to a privacy policy.[4] The policy must contain a statement of what information the company collects, how it is used, with whom it is shared, and how it is safeguarded.[5]

The basic mechanism behind this requirement is that consumers read and compare privacy policies in order to decide what services to use and otherwise exercise choices with respect to their information.[6] These decisions will police the market by rewarding good practices and penalizing bad ones.[7] Meanwhile, lawmakers and officials avoid many of the pitfalls associated with so-called

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1468 (2000); Ruth Gavison, *Privacy & The Limits of Law*, 89 YALE L.J. 421, 465 (1980).

[2] *See, e.g.*, Dennis Hirsch, *Protecting the Inner Environment: What Privacy Regulation Can Learn from Environmental Law*, 41 GA. L. REV. 1, 9, 33-37 (2006) (arguing that "command-and-control type regulations would not be a good fit for the highly diverse and dynamic digital economy" due to the expense and threat to innovation); Kenneth Bamberger & Deirdre Mulligan, *Privacy On the Books and On the Ground*, 63 STAN. L. REV. 247, 303 (2011) ("The shortcomings of command-and-control governance … are well recognized."). *See also* Ian Ayres and Matthew Funk, *Marketing Privacy*, 20 YALE J. ON REG. 77, 106 (2007) (comparing rules to a market approach in the context of telemarketing).

[3] U.S. Department of Commerce, *Commercial Data Privacy and Innovation in the Itnernet Economy: A Dynamic Policy Framework* *32 (2010) ("We are also mindful that a hallmark of the digital economy is the wide variety of rapidly evolving products, services, and content that are often made available free of charge in part through the use of personal data.").

[4] California Online Privacy Protection Act, Bus. & Prof. Code §§ 22575-22579 (2004).

[5] *Id.*

[6] Fred Cate, *The Failure of Fair Information Practice Principles*, *in* CONSUMER PROTECTION IN THE AGE OF INFORMATION ECONOMY (2006).

[7] *See* Matthew Edwards, *Empirical and Behavioral Critiques of Mandatory Disclosure: Socio-Economics and the Quest for Truth in Lending*, 14 CORNELL J.L. & PUB. POL'Y 199, 242 (2005).

"command-and-control" regulations.[8] They will not need to limit what a company does with data and hence sidestep a concern over stifling innovation and the politically challenging fight that might follow.

There is only one problem with privacy policies: they do not actually work. Few consumers read privacy policies or similar document and even fewer understand them. This classic notice mechanism does not accomplish its avowed goal of enhancing consumer autonomy or policing the market. The reality is a kind of "privacy paradox" wherein consumers report being very worried about privacy but behave in ways that, if anything, reinforce and justice their concern.

Indeed, there is evidence that privacy policies can do more harm than good. Some research suggests that when people see the words "privacy policy," a term that is required by law, they assume that the company has a "policy of privacy" that imposes substantive limits on what it can do with consumer data.[9] Privacy policies tend to do the opposite: they are written by lawyers to be as permissive as possible. In the event of a conflict, courts may assume the consumer has read the policy and hold her accountable for what it describes.[10]

The proceeding story is in no way limited to online privacy. Again and again, you see descriptions of particular areas of law where lawmakers select traditional notice as their regulatory tool only to confront a mountain of evidence proving it ineffective or counterproductive.[11] Officials keep turning to notice and

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[8] *See* Cass Sunstein, *Administrative Substance*, 40 DUKE L.J. 607, 627 (1991) (critiquing the use of "rigid, highly bureaucratized 'command-and-control' regulation").

[9] *See* Chris Jay Hoofnagle & Jennifer King, *Research Report: What Californians Understand About Privacy Online*, SSRN eLibrary (2008), online at http://ssrn.com/abstract=1262130 (last visited March 14, 2011) (noting that a majority of Californian adults believe that the mere existence of a privacy policy translates into specific limitations on what a company may collect or disclose).

[10] *Cf.* Robert Hillman, *Online Boilerplate: Would Mandatory Website Disclosure of E-Standard Terms Backfire?*, 104 MICH. L. REV. 837, 839-40 (2006).

[11] *See, e.g.,* Lauren Willis, *Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending Price*, 65 MD. L. REV. 707 (2006) (predatory lending); Steven Schwartz, *Disclosures Failure in the Subprime Mortgage Crisis*, 2008 Utah. L. Rev. 1109 (2008) (subprime lending); Steven Schwartz, *Rethinking the Disclosure Paradigm in an Age of Complexity*, 2004 U. ILL. L. REV. 1 (2004) (securities regulation); Geoffrey Manne, *The Hydraulic Theory of Disclosure Regulation and Other Costs of Disclosure*, 58 ALA. L. REV. 473 (2007) (same); Susanna Kim Ripken, *The Dangers and Drawbacks of the Disclosure Antidote: Toward A More Substantive Approach to Securities Regulation*, 58 BAYLOR L. REV. 139 (2006) (same); Charles

it keeps not working—notice is, in more vivid words, a "Lorelei, luring lawmakers onto the rocks of regulatory failure."[12] The result is something of a cottage industry around notice skepticism. A scholar might say that they work in area x and, in that area, mandatory notice is among the only affirmative obligations.[13] But notice does not accomplish its avowed goal of protecting consumers or citizens for a variety of well-evidenced reasons having to do with the obstacles and limits people face in processing information.

This article begins in much the same way, depicting online privacy as a classic notice regime and cataloging the various ways in which notice fails in this context. The article then contributes a fresh approach to a well-known problem. Rather than argue for shorter notices[14] or abandon notice entirely in favor of substantive regulations,[15] the article attempts to broaden the concept of notice in two ways.

First, the article explores the variety of available notice strategies and highlights the importance of selecting the right form of mandated notice for the job. Just because privacy policies do not work does not mean that no forms of disclosure will—alone or in combination. Second, the article explores whether the very design of a product or service, and the way consumers experience that

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Weisselberg, *Mourning* Miranda, 96 CAL. L. REV. 1519 (2008) (*Miranda* warnings).

[12] Omri Ben-Shahar and Carl Schneider, *The Failure of Mandated Disclosure*, 159 U. OF PENN. L. REV. 101, 135 (2011).

[13] *See supra* note 11.

[14] *See, e.g.*, Patrick Gage Kelly *et al.*, *Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach*, CMU-CyLab-90-014, *1 (Nov. 10, 2009) ("[P]roviding standardized privacy policy presentation can have significant positive effects on accuracy and speed of information finding and reader enjoyment with privacy policies."); Corey Ciocchetti, *The Future of Privacy Policies: A Privacy Nutrition Label Filled With Fair Information Practices*, 26 J. Marshall J. Computer & Info. L. 1 (2008); Allen Levy and Manoj Hastak, *Consumer Comprehension of Financial Privacy Notices*, Interagency Notice Project (Dec. 15, 2008) (recommending use of tables in financial privacy disclosure); Willis, *supra* note 11 at 820-21 (arguing inter alia for a short form "loan price tag"). *Cf.* Ben-Shahar and Schneider, *supra* note 12 at 65 ("Some very simple disclosures and many rating systems can provide help in another way that does burden the consumer with data.").

[15] *See, e.g.*, Ripken, *supra* note 2 at 147 ("Rather than avoiding the merits of difficult questions, it may be time for regulators to lay aside the gospel of disclosure in favor of more substantive laws that regulate conduct directly."); Cate *supra* note 2 at 345 (critiquing privacy policies and proposing "substantive restrictions on data processing designed to prevent specific harms").

design, can constitute a form of nonverbal or "visceral" notice capable of changing a consumer's mental model in ways the law does or should acknowledge.

The article proceeds as follows. Part I lays out the basic case against notice in online privacy. Part II explores whether alternative disclosure strategies such as warnings, notifications, or filing requirements that do not rely as directly on consumer decision-making nevertheless show promise in regulating privacy where privacy policies have failed. Surprisingly often, and certainly in the context of online privacy, officials will simply select the wrong information strategy for the job—a possibility many notice skeptics discount on the way toward recommending substantive restrictions on individuals or industry.

Of course, there are limitations to nearly any information strategy. People disregard warnings that they see too often, for instance.[16] Notifications to a person that they need to act or risk losing out on a right or opportunity can rely on outdated or inefficient delivery mechanisms, as when municipal bankruptcy law requires notices to be placed in local newspapers fewer and fewer people read.[17] Moreover, such methods do not necessarily preserve the favored model of the autonomous consumer policing the market to the same extent as traditional notice.

Part III advances the novel argument that the way consumers experience a product or service—its very design—can also constitute a form of non-traditional notice. Nearly all critiques of notice assume that legally mandated disclosure must be textual, verbal, or its symbolic equivalent. The law privileges words. Leveraging a rich literature in design, Part III shows how design strategies that rely on consumer *experience*, instead of words or their symbolic equivalent, have the power to change a consumer's understanding of and expectations around a product or service in ways the law should care about but without many of the usual drawbacks.

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[16] *See* Christine Jolls and Cass Sunstein, *Debiasing Through Law*, J. LEGAL STUD. 199, 202 (2006); Eric Goldman, *A Coasean Analysis of Marketing*, 2006 WIS. L. REV. 1151, 1180 (2006) (describing the escalating cycle of louder and louder disclosure).

[17] 11 U.S.C. § 923 (1978).

These techniques include using familiarity as a type of warning and leveraging our hardwired reactions to certain design elements as way to change consumer understanding and expectations. Instead of attempting to avoid pedestrian collisions by posting warnings around a city that electric cars are silent, for instance, a law might require manufacturers to reintroduce an artificial engine noise.[18] Instead of requiring websites directed at children to develop lengthy privacy notices few will read,[19] lawmakers could require or reward a sufficient degree of formality of design—shown in studies to affect the willingness of subjects to disclose personal details[20]—wherever information is collected from children.

A related technique involves showing consumers what is actually happening, as opposed to telling them generally what might. Just as web companies tailor advertising and other content to consumers, so can they provide (and, in cases, are providing) dynamic privacy disclosure that reveal to consumers how their actual data is being treated.[21] Hospitals could lend admitted patients a tablet computer that chronicles what information the patient is providing and how it is being used and shared through and beyond the visit.

This article uses online privacy as a case study for several reasons. First, notice is among the only affirmative obligations that companies face with respect to privacy—online privacy is essentially a notice regime.[22] Second, the Internet is a context in which notice is widely understood to have failed, but where the

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[18] *See, e.g.*, "Pedestrian Safety Enhancement Act of 2008," H.R. 5237 (Cong. 110) (proposing requirement to address relative quiet of electric and hybrid cars).

[19] *See* Children Online Privacy Protection Act, 5 U.S.C. §§ 6501-06 (1998) (enhancing notice requirements around website directed at children).

[20] *See, e.g.*, Leslie K. John, Alessandro Acquisti, and George Loewenstein, *Strangers on a Plane: Context-dependent Willingness to Divulge Sensitive Information*, J. OF CONSUMER RESEARCH (Feb. 2011). *See also infra* Part III.

[21] *Cf.* Edward Rubin, *The Internet, Consumer Protection, and Practical Knowledge*, in CONSUMER PROTECTION IN THE AGE OF THE INFORMATION ECONOMY 35-52 (Jane Wynn, ed.) (2006) (arguing that new technology affords opportunities to tailor notice to individuals). One example is Google's Dashboard or Ad Preference Manager—tools which, although imperfect, reveal information the company actually has about a user. *See* Google Privacy Center, *online* at http://www.google.com/intl/en/privacy_faq_2010.html. Contrast these tools to Google's privacy policy that tells a user in very general terms what information Google might collect.

[22] *See infra* notes __ - __ and accompanying text.

nature of digital services mean that viable regulatory alternatives are few and poor.[23] Finally, the fact that websites are entirely designed environments furnishes unique opportunities for the sorts of untraditional interventions explored in Parts II and III of the article. But the insights of this article are not limited to privacy. Similar dynamics play out in many other substantive areas. Any lessons this article yields might be applied much more broadly.

I. THE CASE AGAINST NOTICE

The requirement to provide notice to consumers or citizens is an extremely common method of regulation.[24] Notice mandates arise in everything from criminal procedure to financial regulation.[25] Although "ignorance of the law is no defense,"[26] there is a sense in which notice underpins law's basic legitimacy—as alluded by Lon Fuller's inclusion of notice in law's "inner morality" or Friedrich von Hayek's distinction between arbitrariness and the rule of law.[27]

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[23] *See, generally*, Hirsch, *supra* note 2; Bamberger and Mulligan, *supra* note 2. *See also infra* notes __ - __ and accompanying text (exploring the problems with alternatives to notice).

[24] *See* William Sage, *Regulating Through Information: Disclosure Laws and American Health Care*, 99 COLUM. L. REV. 1701, 1707 (1999) ("Enthusiasm for mandatory disclosure laws is reaching a fever pitch. Virtually every bill under consideration by Congress to regulate managed care devotes major portions to information disclosure and dissemination."); Paula Dalley, *The Use and Misuse of Disclosure as a Regulatory System*, 34 FLA. ST. U. L. REV. 1089, 1092 (2007) ("There are dozens, possibly hundreds, of regulatory schemes that use disclosure in whole or in part to accomplish their purposes."); RICHARD THALER AND CASS SUNSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS 188-93 (2008) (hereinafter "NUDGE") (noting multiple examples of mandatory notice).

[25] Ben-Shahar and Schneider, *supra* note 12 at 104 (listing several dozen instances of mandatory disclosure, including within the contexts of criminal procedure, medicine, contract, financial transactions, and insurance); THAYER & SUNSTEIN, NUDGE at 188-93 (listing others).

[26] *See* Shevlin-Carpenter Co. v. Minnesota, 218 U.S. 57, 68 (1910) ("[I]nnocence cannot be asserted of an action which violates existing law, and ignorance of the law will not excuse."); United States v. Int'l Minerals & Chem. Corp., 402 U.S. 558, 563 (1971) ("The principle that ignorance of the law is no defense applies whether the law be a statute or a duly promulgated and published regulation."). *But see* Lambert v. California, 355 U.S. 225 (1957) (requiring probability of knowledge of obscure city ordinance).

[27] LON FULLER, THE MORALITY OF LAW 154 (1965); FRIEDRICH VON HAYEK, THE ROAD TO SERFDOM 112 (1944) ("[G]overnment in all its actions is bound by rules fixed and announced beforehand – rules that make it possible to foresee with fair certainty how the authority will use its coercive powers in given circumstances and to plan one's individual affairs on the basis of this knowledge.").

In the context of online privacy, the provision of notice is among the only requirements companies face. California law requires any company that collects personally identifiable information from California citizens—most Internet companies in the United States—to have a privacy policy.[28] This policy must contain a basic description of the information the company collects, how it is used, with whom it is shared, and how it is secured.[29] The company must link to the privacy policy from any page from which it collects personal information. The link must be "conspicuous" and contain the word "privacy."[30]

The Federal Trade Commission ("FTC") is the agency primarily responsible for enforcing consumer privacy online. Its animating statute, the FTC Act, provides the Commission with a mandate to investigate and pursue claims of unfair or deceptive practice.[31] The FTC is guided by a set of "fair information practice principles" (or FIPPs) in applying the FTC Act to online privacy.[32] These principles include notice/awareness, choice/consent, access/participation and integrity/security.[33]

In practice, the Commission privileges the principle of notice in the context of online privacy to the practical exclusion of the other FIPPs. Agency materials refer to notice as "the most fundamental principle."[34] A review of the FTC's enforcement pattern over the past decade—from the Microsoft Passport consent order to the recent Sears proceeding—reveals that the Commission practically never moves forward with an enforcement proceeding unless a company has violated the notice/awareness principle, provided clearly inadequate security, or some combination thereof.[35]

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[28] Ca. Bus. & Prof. Code § 22575.

[29] *Id.*

[30] *Id.*

[31] Federal Trade Commission Act of 1914, 15 U.S.C. §§ 41-58 (as amended).

[32] Federal Trade Commission, "Fair Information Practice Principles," *online at* http://www.ftc.gov/reports/privacy3/fairinfo.shtm.

[33] *Id.*

[34] *Id.*

[35] *See* Marcia Hofmann, *The Federal Trade Commission's Enforcement of Privacy*, in PROSKAUER ON PRIVACY (Christopher Wolf ed., 2008) (reviewing FTC enforcement of

Public comments by agency principals also reflect a strong emphasis on notice. The newly appointed FTC Chairman, for instance, told Congress in a recent hearing that "the most important thing is clear notice to consumers."[36] Asked to comment to the Wall Street Journal on the state of online advertising, FTC Deputy Director Eileen Harrington responded:

> The jury is still out on whether or not self-regulation is going to achieve the desired state here, which is for consumers to receive clear notice that information is being collected and [a] meaningful explanation of what information is and what is being used for.[37]

Regulators choose notice over other methods of regulation in privacy and elsewhere for a variety of valid reasons. Regulators perceive notice as relatively cheap to implement and easy to enforce:[38] Internet business models can be as odd and as varied as airport vehicles. Rather than spend the resources to discover and assess these models, those that oversee a notice regime merely have to verify that the company has described its practices and, in the event of conflict, determine whether the description is accurate as to that company.

Notice seeks to preserve the conditions for innovation and competition, which an excess of rigid restrictions are thought to compromise.[39] This concern appears particular salient when it comes to digital technology.[40] The Internet

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online privacy through 2010). *See also* Cate, *supra* note 2 at 357 ("What is striking about the FTC's approach is not only its exclusion of most FIPPs, but also its transformation of collection limitation, purpose specification, use limitation, and transparency into mere notice and consent.").

[36] C-SPAN Weekend (Aug. 8, 2010).

[37] [cite]

[38] *See* Ben-Shahar and Schneider, *supra* note 12 at 136 (observing that notice is attractive because it "looks cheap" and "looks easy"). *But see id.* at 190-91 (identifying hidden costs of notice).

[39] *See* Cass Sunstein, *Administrative Substance*, 40 DUKE L.J. 607, 627 (1991) (critiquing the use of "rigid, highly bureaucratized 'command-and-control' regulation"); Kenneth Bamberger & Deirdre Mulligan, *Privacy On the Books and On the Ground*, 63 STAN. L. REV. 247, 303 (2011) ("The shortcomings of command-and-control governance … are well recognized").

[40] *See, e.g.*, Dennis Hirsch, *Protecting the Inner Environment: What Privacy Regulation Can Learn from Environmental Law*, 41 GA. L. REV. 1, 9, 33-37 (2006) (arguing that "command-and-control type regulations would not be a good fit for the highly diverse and dynamic digital economy" due to the expense and threat to innovation).

industry can credibly claim that substantive restrictions may impede innovation, leading to fewer useful services, or else privilege one technology over another.[41] Thus, for instance, a flat ban on storing Internet search queries may interfere with the development of useful services the rely on long-term searching trends.[42]

Notice also purports to respect the basic autonomy of the consumer or citizen by arming her with information and placing the ultimate decision in her hands.[43] People have different subjective preferences with respect to privacy and those who value it little should be able to exchange their personal information for things upon which they place a greater value. Informed consumers also mean that the market will reward companies for good privacy practices and penalize them for bad ones.

Finally, notice may be more politically palatable.[44] Mandated notice can and does face opposition, but the consensus is that the opposition is less fierce than to restrictions on what the company can and cannot do. Notice promises to represent, in these respects, a significant improvement over many of its regulatory alternatives—especially in a fluid, emerging context such as Internet-based services.

There is just one problem with using traditional forms of notice in the context of privacy: it does not work. Notice consistently fails to achieve its avowed goals of empowering the consumer and policing the market. Notice can be worse than ineffective; it can backfire and do more harm than good. The next

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[41] *Cf.* IAN AYERS & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE 4 (1992).

[42] *Cf.* Nicklas Lundblad & Betsy Masiello, "Opt-in Dystopias," (2010) 7:1 SCRIPTed 155, *available online at* http://www.law.ed.ac.uk/ahrc/script-ed/vol7-1/lundblad.asp (arguing that a requirement for users to opt in to analysis of their search terms would make socially beneficial technologies such as Google Flu Trends less useful).

[43] *See* Dalley, *supra* note 24 at 1093 ("[D]isclosure regimes comport with the prevailing political philosophy in that disclosure preserves individual choice while avoiding direct governmental interference."); Sage, *supra* note 24 at 1705 (noting the "growing commitment to patient autonomy and self-determination" in bioethics as paving the way to mandated disclosure in healthcare).

[44] *See* Ben-Shahar and Schneider, *supra* note 12 at 138, citing William N. Eskridge, Jr., *One Hundred Years of Ineptitude: The Need for Mortgage Rules Consonant with the Economic and Psychological Dynamics of the Home Sale and Loan Transaction*, 70 VA. L. REV. 1083, 1096-102 (1984).

few sections canvasses reasons for this failure, primarily in the context of privacy. The first set of reasons is practical: consumers do not read privacy policies or comparable documentation. The second has to do with differences in audience understanding as well as inherent cognitive limitations; even if we did read privacy policies, we would not be capable of making good decisions on their basis. The section following examines how notice can do more harm than good and how companies sometimes repurpose notice to their own ends.

The failure of traditional notice is well-documented in the literature around privacy and many other sectors; this article does not dwell on the topic. Its primary concern, addressed in Parts II and III, is to explore whether the failure of classic or traditional notice to inform consumer decision-making is necessarily fatal to the use of disclosure strategies in general.

A. Practical Hurdles

The best starting point in the case against privacy notices may be the obstacles they face in even reaching their intended audience. According to legend, the Roman tyrant Caligula acknowledged the need to create and publish the law, "but it was written in a very small hand, and posted up in a corner so that no one could make a copy of it."[45] Today's notices are, if not posted in a corner, not always accessed in practice. Offline, we know that consumers will throw out many mandatory privacy notices without reading them.[46]

Online, there is extensive evidence that no one reads privacy policies, terms of service, or other documents, whether or not they are forced to "click through" them on the way to content or services.[47] In one dramatic example, a

[45] Screws et al. v. United States, 325 U.S. 91, 96 (1945), quoting SUETONIUS, LIVES OF THE TWELVE CAESARS 278 (1907). I have Samuel Bray to thank for reminding me of this example.

[46] *See* Cate, *supra* note 6 at 360 ("[N]otices may never be received. In fact, most requests for consent never each the eyes or ears of their intended recipient."); *id.* at 360-61 (citing reports).

[47] *See id.* at 361; Sarah Gordon, *Privacy: A Study of Attitudes and Behaviors in US, UK and EU Information Security Professionals*, Symantec White Paper (2003) (only 3 in 63 people in a study reported reading a privacy policy); Miriam Metzger, *Effects of Site, Vendor, and Consumer Characteristics on Webs Site Trust and Disclosure*, 33:3 COMMUNICATION RESEARCH 157, 159 (June 2006); *id.* at 168-69; Ben-Shahar & Schneider, *supra* note 2 at 125 (readership of boilerplate

videogame company from the United Kingdom included a provision in its terms of service that, unless the user opted out, the company would retain rights to the user's eternal soul.[48] Reportedly twelve percent of people opted out—an abnormally high number attributable to the coverage of the stunt among technology blogs.[49] Even the Chief Justice of the Supreme Court recently reported that he does not read terms of service.[50]

That people do not take the time to read notices is understandable. Having to read a notice takes the consumer away from the fun or function of a service. People are busy and face many competing demands on their time.[51] It is rational, in the sense of welfare-maximizing, for individuals to ignore at many notices. And it is likely desirable from the viewpoint of society: researchers at Carnegie Mellon once calculated that it would cost $781 billion in worker productivity were everyone to read all of the privacy policies they encountered online in one year.[52]

In short, consumers would have to read privacy policies in order to make decision on their basis. They do not. One counterargument is that other, third-parties could read the policies and then signal the level of privacy of each website to consumers. There are many questionable assumptions embedded in this view. One is that we will be able to trust the certifiers. One study of a leading seal provider found that the presence of a seal made certain privacy-invasive practices *more* likely.[53] The FTC also brought an action against a privacy and security seal

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language "is effectively zero").

[48] "7,500 Online Shoppers Unknowingly Sold Their Souls," FoxNews.com (Apr. 15, 2010), *online at* http://www.foxnews.com/scitech/2010/04/15/online-shoppers-unknowingly-sold-souls/ (last visited Mar. 13, 2011).

[49] *Id.*

[50] Andrew Malcom, *Chief Justice Roberts on tiny type*, Top of the Ticket, L.A. TIMES, Oct. 20, 2010.

[51] *See* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1215-20 (1994).

[52] Aleecia McDonald & Lorrie Cranor, *The Cost of Reading Privacy Policies*, Telecommunications Policy Research Conference (2008).

[53] Benjamin Edelman, *Adverse Selection in Online 'Trust' Certification*, International Conference on e-Commerce (2009).

provider for fraud.[54] A second assumption is that privacy policies differ from one another sufficiently to be compared. For a variety of reasons, privacy policies use notoriously abstract and general language and vary from one another but little.

B. Limits On Understanding

Assuming a privacy notice reaches the intended audience, there are a number of reasons why it still might not have its intended effect. One reason has to do with differences in understanding and capability across a wide potential audience. A second concerns the inherent limitations in our ability to process information and make decisions on its basis—what Herbert Simon famously labeled our "bounded rationality"[55] and what contemporary behavioral economics refers to as "cognitive limitations" or "biases."[56]

1. Varying capacities.

People vary in their ability to process information.[57] Notices are often written by specialized professionals for an audience that includes the very young, the very old, and the thirty million adults of "below basic" literary.[58] Privacy policies, for instance, tend to be written at a college level; the average reading level of an American is somewhere between the eight and ninth grade.[59] These

[54] Federal Trade Commission, Plaintiff, v. ControlScan, Inc., a corporation, Defendant, FTC File No. 072 3165 (2010).

[55] HERBERT SIMON, MODELS OF MAN 270-71 (1957).

[56] *See, e.g.*, W. Kip Viscusi, *Individual Rationality, Hazard Warnings, and the Foundations of Tort Law*, 48 RUTGERS L. REV. 625, 630 (1996); Jon Hanson & Douglas Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. Rev. 630, 635 (1999); Jolls and Sunstein, *supra* note 16.

[57] *See* Sage, *supra* note 24 at 1728 ("Individuals vary widely in their knowledge and expertise, as well as their capacity to understand disclosed information.").

[58] *Id.* ("This problem is particularly acute in the case of vulnerable subpopulations."); Latin, *supra* note 50 at 1207-09 (discussing functional illiteracy and "predictably inattentive or incompetent user groups"). According to the most recent National Assessment of Adult Literacy, fourteen percent of American adults operate at "below basic" literacy.

[59] *See* Gage Kelly et al., *supra* note 14 ("Most privacy polices are written at a level that is suitable for consumers with a college-level education."); Graber et al, *Reading level of privacy*

differences can both dissuade some populations from reading notices and limit their ability to comprehend any they do read.

Similarly, privacy policies are written in English, which is not everyone's first language. Translations are not always available: in 1986, the supreme court of New Jersey upheld a jury finding that any notices on products commonly used by migrant workers should contain pictures.[60] Even where translations are available, much can get lost.[61] Studies have shown that translated *Miranda* warnings often have a substantively different meaning than the original.[62] Non-native speakers may also be more susceptible to the "lulling effect" sometimes occasioned by the appearance of legalistic notices and described in the following section.[63]

2. Shared cognitive limitations.

We are different from one another, but we also share many inherent cognitive limitations. One of the most common complaints against notice is that it relies on a false model of human capacity: the perfectly rational consumer with limitless attention. Herbert Simon famously described human rationality as "bounded," an insight developed by the eventual behavioral economics movement.[64] Through a series of experiments and observations, scholars have assembled a long, well-evidenced list of our shared cognitive limitations, which operate to hamper the human ability to process notices and other information.

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policies on Internet health Web sites, J. of Family Practice 51:7 (Jul. 2002) (concluding that the average privacy policy for Internet health websites required 2 years of college).

[60] [cite]

[61] *See, e.g.*, State v. Santiago, 556 N.W.2d 687, 690 (Wis. 1996) (finding "evidence that the warnings given in Spanish did not reasonably convey the *Miranda* rights to the defendant").

[62] *See* Weisselberg, *supra* note 11.

[63] *See* Willis, *supra* note 11 at 794-95. The lulling effect refers to the belief that rights exist merely because of the appearance of legalistic language. *Id.* *See also infra* notes __ - __ and accompanying text.

[64] *See* Jolls & Sunstein, *supra* note 16 at 199-200; Jon Hansen & Douglas Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1423-25 (1999).

Critics routinely, and understandably, refer to cognitive limitations and biases in asserting their skepticism toward notice.[65]

Information overload is one common and intuitive example. Simply put, information overload refers to the phenomenon that too much information will overwhelm the recipient, causing her to skim, freeze, or pick out information arbitrarily.[66] As Susana Kim Ripken explains in the context of securities regulation:

> When faced with too much data, people have a tendency to become distracted by less relevant information and to ignore information that may turn out to be highly relevant. They can handle moderate amounts of data well, but tend to make inferior decisions when required to process increasingly more information.[67]

Privacy polices are not 10Ks. But these are long documents—Facebook's privacy policy reportedly contains more words (5830) than the entire United States Constitution.[68] Consumers will have the same tendency to skip or skim these documents and will not generally be capable of processing all the information they contain.

Information overload is just one example draw from behavioral economics. Others includes including anchoring,[69] availability and other heuristics,[70] susceptibility to framing,[71] the influence of self-esteem.[72] Our

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[65] *See supra* note 11 (compiling examples).

[66] Dalley, *supra* note 24 at 1115-17 (discussing "information overload"); Latin, *supra* note 51 at 1211 (same); *id.* at 1293 (describing "excessive disclosure"); Ben-Shahar & Schneider, *supra* note 12 at 27-28 (describing the "overload effect").

[67] *See* Ripken, *supra* note 11 at 160-61 (internal citations omitted).

[68] Bianca Bosker, *Facebook Privacy Policy Explained: It's Longer Than The Constitution*, Huffington Post (July 12, 2010), *online at* http://www.huffingtonpost.com/2010/05/12/facebook-privacy-policy-s_n_574389.html (last visited August 4, 2011).

[69] *See* Ripken, *supra* note 11 at 173-74. Anchoring bias refers to our tendency to latch onto or "anchor" early information, using it as a reference point for all future information. *Id. See also* Willis, *supra* note 11 at 1114.

[70] Willis, *supra* note 11 at 1114; Latin, *supra* note 51 at 1235-41.

[71] Ripken, *supra* note 11 at 780, 785-87.

divergence from rational decision-making based on cognitive limitations or biases been repeatedly summarized elsewhere, including in the context of privacy.[73] Suffice it to say that our capacity to process information—the stuff of traditional notice—is limited, a fact underpinning much notice skepticism.

C. Backfires and Misnotices

Notice can be ineffective at informing consumers. People do not read them and, when they do, they often do not understanding what they are reading. There is also evidence that notices can do more harm than good. Privacy polices are a great example. Few read or understand them.[74] But worse: a majority of adults see the words "privacy policy"—required under state law—and assume that the company safeguards their information in specific, but often incorrect, ways.[75] Consumers that assume away bad practices cannot police against them.

Although consumers do not read privacy policies or terms of use, courts commonly act as though they have in the event of a conflict.[76] Empirical assessments—for instance, by Robert Hillman—suggests that online shoppers do not take terms of service into account when deciding where to purchase goods or services.[77] Nor are they able to bargain for different terms.[78] At the same time,

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[72] *Id.* at 755, citing *inter alia* George Loewenstein, *Out of Control: Visceral Influences on Behavior*, 65 ORG. BEHAV. & HUMAN DECISION PROCESSES 272 (1996).

[73] *E.g.*, James Neff, *Shopping for Privacy Online: Consumer Decision Making Strategies and the Emerging Market for Information Privacy*, 2005 U. ILL. J. L. TECH. & POL'Y 1-54; Jolls and Sunstein, *supra* note 16; Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998); Hansen & Kysar, *supra* note 62; *See also* THAYER & SUNSTEIN, NUDGE; DAN ARIELY, PREDICTABLY IRRATIONAL: THE HIDDEN FORCES THAT SHAPE OUR DECISIONS (2008).

[74] *See supra* note __.

[75] Hoofnagle & King, *supra* note 9. For instance, a majority of adults surveyed believed that the presence of a privacy policy meant that the company could not share user data with a third party without permission. *Id.*

[76] [string cite]

[77] Robert Hillman, *Online Boilerplate: Would Mandatory Website Disclosure of E-Standard Terms Backfire?*, 104 MICH. L. REV. 837, 839-40 (2006).

[78] *Id.* at 840.

such terms serve to insulate business from later claims of unfairness or procedural unconscionability.[79]

Sometimes notice fails to accomplish its objectives because the regulated entity engages in a form of "misnotice," that is, takes purposive steps to reduce or reverse notice's impact. In the face of a city ordinance requiring restaurants to post their hygiene grade to the public, a sandwich shop in New York City reportedly used its suboptimal grade of "B" as the first letter in the phrase "Best restaurant in town."[80] A lawsuit filed in 2003 alleges that a handset manufacturer purposefully designed rebate notices in a such a way that they were unlikely to be opened.[81] There is also evidence that some police officers take steps to soften or mitigate *Miranda* notices[82] and that doctors will sometimes downplay warnings of side effects while emphasizing the risks of not taking medicine.[83]

In sum, few people read privacy polices and fewer still understand them. If anything, privacy polices give people a false sense of reassurance and open them to more promiscuous disclosure of information. In the event of conflict, privacy policies and other, unread terms may be leveraged by the company against the consumer who never read them.

This same basic story plays out dramatically in privacy but appears in a wide variety of other contexts. Scholars have identified a similar pattern in predatory lending, healthcare, subprime lending, securities, and criminal

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[79] *Id.*

[80] Aaron Rutkoff, *Restaurant Makes Best Out of 'B' Grade*, WALL STREET J. (Sept. 17, 2010), available online at http://blogs.wsj.com/metropolis/2010/09/17/restaurant-makes-the-best-of-b-grade (last visited March 14, 2011).

[81] Pollard v. Ericsson, Inc., 22 Cal. Rptr. 3d 496 (2004). The court eventually found against the plaintiffs. *Id.*

[82] *See* Weisselberg, *supra* note 11 at 1557-62.

[83] *See* Ben-Shahar and Schneider, *supra* note 12 at 154, citing Jean-Marie Berthelot et al., *Informing Patients About Serious Side Effects of Drugs. A 2001 Survey of 341 French Rheumatologists*, 70 JOINT BONE SPINE 52, 55 (2003). As Jon Hansen and Douglas Kysar argue in another context, firms need not even engage in this conduct knowingly to reduce the efficacy of product warnings. "[M]anufactures have incentives to utilize cognitive biases actively to shape consumer perceptions throughout the produce purchasing context and independently of government regulations." Jon Hansen and Douglas Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 632, 637 (1999). Market pressures can yield this outcome, on their view, "regardless of manufacturers' awareness of the process." Hansen and Kysar, *supra* note 64 at 1427.

procedure, among other areas.[84] In each instance, the author explains the attraction of notice to regulators and then shows why, in practice, mandatory notice fails to accomplish its avowed goals.[85]

II. SELECTION ERROR

It is easy to see why many become skeptical of notice as a regulatory mechanism. Mandatory notice, defined as the effort to inform consumers of certain practices so that they can make better decisions, fails to accomplish its regulatory objectives. People do not use privacy polices to weigh the privacy of services or features and decide whether to use them on this basis.

Upon making this showing, critics of notice tend to take one of three directions. Some rest their case there. Thus, in their recent comprehensive indictment of mandated disclosure across a variety of areas, Carl Schneider and Omri Ben-Shahar are clear that advancing alternative solutions is outside their scope.[86] Others suggest shortening notice or otherwise changing its format to reduce the burden on consumers. In privacy, this might involve converting "legalese" to plainer language,[87] "layering" notice,[88] placing the information in a table,[89] or otherwise standardizing disclosure.[90]

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[84] *See supra* notes 11-12.

[85] *See id*.

[86] *See* Ben-Shahar and Schneider, *supra* note 12 at 105 ("Our task is *not* to propose an alternative.") (emphasis in original). In their conclusion, Schneider and Ben-Shahar point toward the promise of "advice." It is possible that they will expand upon this solution in their forthcoming book adapted from the article. *See* OMRI BEN-SHAHAR AND CARL SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE (Princeton University Press) (forthcoming 2012).

[87] *See, e.g.*, Google Official Blog, *Trimming Our Privacy Policies* (explaining Google's decision to redraft elements of its privacy policy).

[88] *See, e.g.*, The Center for Information Policy Leadership, Hunton & Williams LLP, "Ten Steps To Develop A Multi-Layered Privacy Notice" (Aug. 2007).

[89] *See* Levy and Hastak, *supra* note 14 (report prepared for seven federal agencies suggesting the use of tables in financial privacy disclosure).

[90] Lauren Willis argues for, *inter alia*, a simplified "Loan Price Tag" in the lending context. Willis, *supra* note 11 at 820-21. Corey Ciocchetti urges "nutrition labels filled with fair information practices." Ciochetti, *supra* note 14 at *passim*.

Yet studies show only marginal improvement in consumer understand where privacy policies get expressed as tables, icons, or labels.[91] Notice is in this sense hydraulic: it appears impossible to convey complex content in clear and concise format.[92] Earlier advertising research shows in that context that the addition of more information will crowd out other, relevant information.[93] More fundamentally: it does not matter how short a notice is if consumers never bother to read it.[94]

Finally, a number of scholars and policymakers eschew notice entirely in favor of substantive restrictions on conduct. Fred Cate, for instance, examines the failures of traditional notice in the context of online privacy and proposes "substantive restrictions on data processing designed to prevent specific harms."[95] Solon Barocas and Helen Nissenbaum argue that the context surrounding the practice of targeting online ads by tracking consumer behavior does not support a meaningful role for notice and support "substantive direct regulation" instead.[96] Outside of privacy, Ripken calls for regulators to "lay down the gospel of disclosure in favor of more substantive laws that regulate conduct directly."[97] And so on.

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[91] *See, e.g.*, Patrick Gage Kelly *et al.*, *Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach*, CMU-CyLab-90-014, *10 (Nov. 10, 2009) (accessing the efficacy of labels); Allen Levy and Manoj Hastak, *Consumer Comprehension of Financial Privacy Notices*, Interagency Notice Project (Dec. 15, 2008) (assessing the use of tables).

[92] *See* Latin, *supra* note 51 at 1221 ("Other research findings indicate that … exhaustive disclosure is incompatible with clear and vivid message formats."); *id.* at 1222-23; Ben-Shahar and Schneider, *supra* note 12 at 142 ("There is rarely a good solution in principle: incomplete disclosure leaves people ignorant, but complete disclosure creates crushing overload problems.").

[93] *See* Richard Craswell, *Taking Information Seriously: Misrepresentation and Nondisclosure in Contract Law and Elsewhere*, 92 VA. L. REV. 565, 583-84 (2006).

[94] Human-computer interaction scholar Victoria Groom and I once attempted to compare the efficacy of short and long form privacy policies by displaying a privacy link in the usual place (bottom right) on a mock search engine. We were unable to do the comparison because no one clicked on the privacy policy in either condition.

[95] Cate, *supra* note 6 at 345.

[96] [cite]

[97] Ripken, *supra* note 11 at 147. *See also* Matthew Edwards, *Empirical and Behavioral Critiques of Mandatory Disclosure: Socio-Economics and the Quest for Truth in Lending*, 14 CORNELL J.L. & PUB. POL'Y 199, 204 (2005) ("Put bluntly, many critics simply do not think that disclosure works.").

This article does not take a stance on whether or when substantive restrictions on the collection, processing, and disclosure of information are warranted. The article maintains only that scholars and other commentators move too fast in suggesting that we abandon information entirely as a regulatory strategy merely because one the classic form of notice is not working.

Privacy policies rely on the classic notice mechanism: informed decision-making. As described, the idea is to inform the consumer of a given company's practices so that she may decide whether and how to use a service.[98] If she does not like these practices, she is free to choose another company or (somehow) avoid the Internet altogether. In addition to promoting this rosy pictures of consumer autonomy, requiring notice is supposed to avoid a variety of problems associated with limiting that an Internet company can do.[99]

This strategy does not work in privacy for all of the reasons outlined in Part I. This next Part argues that the classic notion of notice is only part of the picture; "notice" or "disclosure" are better thought of as umbrella terms for several distinction regulatory strategies whose mechanism involves requiring the conveyance of information. Even if one information strategy identified by a lawmaker or official does not work—for instance, privacy policies—another might, alone or in combination. The plurality of notice and the possibility of selection error hold lessons for regulating privacy and other areas.

A. Alternatives to classic notice.

Notice is not a monolithic concept. Information strategies abound in law that do not necessarily rely on informed decision-making. This section canvasses three information strategies and contrasts them to the model of notice that skeptics have so thoroughly debunked as a viable means to regulate online privacy. The three strategies are warnings, notifications, and reporting. Each of these

[98] *See supra* notes __ - __ and accompanying text.

[99] *See supra* note 2.

strategies—and likely more—has is own audience, context, and form. Each differs in some respects to classic notice and to one another.

1. Warnings.

Rather than hire someone to watch a pool at all times, a hotel owner may invest in a sign reading "No lifeguard on duty." The obvious purpose of the sign is to warn potential swimmers that they need to be particularly careful because no one will come to their aid. It may, but will not necessarily, reduce the likelihood of a successful lawsuit in the event a guest drowns or is injured.[100] The sign is a warning. Additional examples include safety warnings on products or equipment,[101] warnings of known allergens in food,[102] warnings that someone is in danger of imminent harm,[103] warnings about the existence or transmission of a disease,[104] even warnings against trick-or-treaters.[105]

The purpose of a warning is generally to alert one or more individuals to a specific danger within one context, often in an effort to shift responsibility in the event of an injury or other harm. They tend to be effective when there is a single harm to avoid—one that can be easily grasped but that is not immediately obvious—and can be ineffective otherwise.[106]

Warnings are generally short as they need to be grasped immediately. They are also location, product, or event-specific. A "high voltage" warning

[100] *E.g.*, Haft v. Lone Palm Hotel, 478 P.2d 465 (Ca. 1970) (remanding a tort case involving no lifeguard on duty).

[101] *See, generally*, Latin, *supra* note 51.

[102] Food Allergen Labeling and Consumer Protection Act of 2004, 21 U.S.C. §§ 321, 343 (2000).

[103] *See* Tarasoff v. Regents of University of California, 551 P.2d 334 (Ca. 1976) (holding that therapist who knows or should know that her patient poses a real danger to a third party must warn that person).

[104] *See, e.g.*, Mandatory HIV Partner Notification Act, N.Y. Pub. Health Law §§ 2130, 2133 (2000). Despite New York's use of "notification," this is best thought of as a warning to take precautions.

[105] *See* Missouri SB 714 § 589.426 (requiring registered sex offenders to post "No candy or treats as this residence" on Halloween).

[106] *See* Latin, *supra* note 51 at __.

should obviously appear near the dangerous source of electrical energy. A product warning should appear on the product or at least its packaging.[107] A warning related to the possibility of a computer virus in a given download should occur immediately prior to the download.

Sources for a warning requirement vary. A state law may require automated teller machine operators to warn against taking out money alone and at night,[108] whereas *Tarasoff* "warnings" flow from the California state supreme court's interpretation of duty in tort law.[109] Often a warning is "required" only in the sense that, without it, a defendant will have one less defense against a legal action.

2. Notifications.

A notification alerts an individual or group fitting particular characteristics of an obligation to act lest they forgo a right or opportunity. Ignoring a notification that a library book is overdue could lead to revocation of one's borrowing privileges. Service of process notifies the recipient that she is to appear in court or risk a default judgment.[110] Class certification may require notifying the potential class.[111] Bankruptcy law can require notifying potential creditors.[112] Federal law provides that victims be notified of relevant criminal proceedings.[113]

Notifications differ from warnings in that, whereas warnings are addressed to anyone facing a given context, the intended audience of notifications is particular individuals—even if not yet identified by name at the time the

[107] *See* Latin, *supra* note 51 at 1208-09.

[108] Automated Teller Machine Security Act, 205 ILCS §695/15.

[109] *See Tarasoff* 551 P.2d 334, 340.

[110] BRIAN GARNER, ED., BLACK'S LAW DICTIONARY 573 (1996) (defining service of process).

[111] For a discussion of the pitfalls of class action notification, see DEBORAH R. HENSLER ET AL., CLASS ACTION DILEMMAS 3-4, 68, 117-18 (2000).

[112] *See, e.g.*, 11 U.S.C. § 923 (requiring notification of a municipal bankruptcy).

[113] Crimes Victims' Rights Act, 18 U.S.C.A § 3771 (2004).

notification was issued. And whereas warnings generally seek to inform people of physical risks, notifications seek to inform particular people of a risk to opportunity or another obligation to act.

Notifications can be purely instrumental but tend to be grounded in considerations of fairness.[114] It follows that the obligation to notify is often stronger where the stakes are higher. Notifications can vary in length and format and can be accompanied by—or appear nested within—other forms of notice.[115] They are effective when coupled with a sensible plan to reach the target audience.[116]

3. Reporting.

Warnings and notifications each differ significantly from reports—that is, the periodic submission of detailed information about a person or firm's relationships or practices to a sophisticated authority. The source of a reporting or filing requirement is almost always a statute. Examples include disclosure requirements for public companies under Sarbanes-Oxley[117] and the Securities Act;[118] requirements that employers provide information about the risks of on-premises chemicals;[119] requirements that energy companies file environmental

[114] *See, e.g.*, Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950) ("An elementary and fundamental requirement of due process in any proceeding which is to be accorded finality is notice reasonable calculated, under all the circumstances, to apprise interested parities of the pendency of action…"). *Cf.* Padilla v. Kentucky, 130 S.Ct. 1473, 1483 (2010) (granting relief in habeas corpus for ineffective assistance of counsel for failure to explain consequences of a plea agreement).

[115] Pleadings accompanied by service of process are one example. Opt outs—that is, notifications of some right to limit how a company uses information or where disputes will be handled—that appear in privacy policies or terms of service are another.

[116] *See supra* notes __ - __ and accompanying text (discussing why notices do not reach their intended audience).

[117] Sarbanes-Oxley Act of 2002, 15 U.S.C. § 7264-65 (Supp. 2004) (requiring disclosure around auditing and ethics).

[118] *E.g.*, Securities Act of 1933, 15 U.S.C. § 77e; Securities and Exchange Act of 1934, 15 U.S.C. §§ 78m, 78n (2000).

[119] *E.g.*, 29 C.F.R. § 1910.1200 (2006) (OSHA Hazard Communication Standard).

impact statements;[120] and the requirement that universities report crime statistics.[121]

Although reporting appears directed at times to a particular entity, the basic idea behind reporting is to make extensive information available to anyone—investors, regulators, litigants, political activist—who might be interested.[122] Reporting's intended purpose is a matter of debate. Lawmakers may pass a given reporting requirement with an avowed goal of information consumers on to make claims of effectiveness on the basis of changes in the behavior of the regulated entity.[123] But its mechanism is to require firms to look internally and produce a detailed account along particular lines for a sophisticated—often a government agency—audience.

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Each of these information strategies, and likely others, requires companies to disclose something—a danger, a right, a responsibility, or a detailed account of internal practice. They also enjoy many of the advantages notice has over other regulatory strategies. For instance, issuing privacy warnings, notifications, or reports would not strictly require a company to make changes to its core data practices an more than a privacy policy.[124]

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[120] *E.g.*, 42 U.S.C. § 11023 (2000).

[121] Jeanne Clery Disclosure and Campus Security Policy and Campus Crime Statistics Act, 20 U.S.C.A. § 1092(f); 34 C.F.R. 688.46.

[122] *Cf.* Hillman, *supra* note 10 at 849 (noting that certain forms of disclosure are "intended to influence business to write reasonable terms on the theory that … watchdog groups will publicize adverse terms.").

[123] *See* Dalley, *supra* note 24 at 1119 ("So, for example, restaurant hygiene improved in Los Angeles after enactment of an ordinance that required hygiene scores to be posted, and the output of toxic waste declined after the institution of the Toxic Release Inventory (TRI), which required firms to disclose the amount of certain named pollutants they produced.") (internal citations omitted).

[124] Or consider the possible relationship between product warnings and cost: we could require manufacturers of hairdryers to make them waterproof. But this would be expensive for the manufacturer and the consumer. Instead, we require a warning not to use the hair dyer around water. [cite]

Unlike a privacy policy, however, these strategies do not *necessarily* rely on individuals to make thoughtful decisions on the basis of complex information.[125] Obviously the receipt of a notification could occasion an internal debate: should I become a part of this class action? And warnings about side effects, for instance, may cause a consumer to decide not to take a particular over-the-counter drug. Warnings, notifications, and reporting also have limitations, discussed in the next Part. But they do not require as unrealistic an account of the consumer as decision-maker and, as such, should be treated separately from the traditional notice mechanism that is so often the subject of criticism.

B. Selection Error

That the definition of notice might be broadened to include additional, distinct categories turns out to be important for addressing policy questions. In privacy, the requirement to furnish a privacy policy has been treated as the one size that fits all.[126] Yet different problems demand different information solutions.

Consider one online privacy problem, that of electronic surveillance by the government. Critics identify a number of concerns with so-called "d orders"—court orders for user information under section 2703(d) of the Stored Communications Act.[127] One concern is that law enforcement may delay the service provider from telling the user that her records are under subpoena.[128] This makes it impossible for the user to mount a defense—even where she might have

[125] SEC disclosures are directed in part toward investors and, as such, run into many of the problems of traditional notice. *See, generally,* Ripken, *supra* note 11. But other disclosures to agencies such the Environmental Protection Agency and the Federal Communications Commission are intended primarily (or only) for the agency.

[126] *See supra* notes __ - __.

[127] 18 U.S.C. § 2703(d). The Stored Communications Act (SCA) is part of an omnibus electronic surveillance law, the Electronic Communications Privacy Act of 1986, codified at 18 U.S.C. §§ 2701-2711 (2000 & Supp. I 2001). For a comprehensive discussion of the SCA, see Orin Kerr, *A Users Guide to The Stored Communications Act*, *And A Legislators Guide to Amending It*, 72 GEO. WASH. L. REV. 1208 (2004).

[128] *See* 18 U.S.C. § 2705.

a very strong one. Thus, there is a specific, identified target who stands to lose an opportunity. Law enforcement may object to it on the basis of the need for secrecy in some types of investigations, but an obvious remedy for this problem is mandating immediate notification.

Or consider the distinct concern that law enforcement is abusing its subpoena power, not in the individual instance, but by issuing too many requests overall. We might reasonably worry as a society about the net amount of surveillance. Indeed, the overuse of National Security Letters, once discovered, lead to calls for reform.[129] The remedy for an overall volume of surveillance concern could be general reporting of the number of subpoenas issued each year, just as the Department of Justice does with respect to wiretaps.[130]

Yet another issue is that consumers do not understand the due process ramifications of storing information in the Internet "cloud,"[131] as opposed to a physical file cabinet at home. This is so because terms of use tend to be vague on this point, saying, for instance, that the company will comply with any lawful request for information.[132] Here the solution could involve clearer terms or ground rules—ideally in a format that users can digests. Some companies might commit to pushing back against requests and thereby gain consumer trust.[133]

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[129] 18 U.S.C. § 2709. *See, e.g.* National Security Letters Reform Act of 2009, H.R. 1800 (Cong. 111) ("To establish reasonable procedural protections for the use of national security letters, and for other purposes.").

[130] The Omnibus Crime Control and Safe Streets Act of 1968 requires the Administrative Office of the United States Courts to report applications for wiretap orders.

[131] That is, in a remotely located server, instead of on the computer or other hardware device, often called the "client."

[132] *See. e.g.*, AT&T, Privacy Policy, online at http://www.att.com/gen/privacy-policy (providing it may share personal information "to comply with court orders, subpoenas, lawful discovery requests and other legal or regulatory requirements …"); Sears, Privacy Policy, online at http://www.sears.com/shc/s/nb_10153_12605_NB_CSprivacy ("We also may provide information to regulatory authorities and law enforcement officials in accordance with applicable law or when we otherwise believe in good faith that the law requires it.") (last visited March 14, 2011).

[133] At least one online genetics company, for instance, commits to "use reasonable and lawful efforts to limit the scope of any such legally required disclosure, and we will make every attempt to notify you in advance insofar as we are legally permitted to do so." Navigenics, Privacy Policy, online at http://www.navigenics.com/visitor/what_we_offer/our_policies/privacy/#disclosure

(last visited March 14, 2011).

Finally, it happens that, as a quirk of federal electronic privacy law, communications that are in storage for greater than 180 days get lesser protection than those stored for up to 180 days.[134] Users often have no idea how long their information will be stored and we can imagine a preference for deleting, archiving, or encrypting information once it hits that timeframe. Here the best remedy might be a warning: this particular piece of information has or will lose its current level of legal protection.[135]

That notice comes in various, policy-relevant forms also presents a challenge to notice skepticism. Specifically, it raises the question of whether the failure of notice meaningfully to address a given problem stems from a selection error. If lawmakers can select the wrong form of notice for a given context, it may not always be appropriate to jump immediately to an alternative such as substantive regulation or otherwise throw in the towel of mandated information.

Privacy law again furnishes examples. As discussed, the California Privacy Protection Act requires websites to describe their practices in conspicuously posted privacy terms.[136] No one reads these policies[137] and, worse still, their mere existence leads a majority of adults to assume better practices than generally exist.[138] Similarly, federal law requires terms around financial privacy. Regulated entities must disclose, among other information, the categories of information it collects and what it discloses to third parties.[139] The law requires disclosure on an initial and annual basis at an estimated cost of hundreds of millions of dollars—costs presumably passed along to the consumer who likely never saw them.[140]

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[134] 18 U.S.C. § 2703.

[135] The government has also taken the position in litigation that merely opening an email takes it out of warrant territory. [cite] Should this position become the law of the land, we could imagine a warning prior to opening the first email on a service that it could change the level protection.

[136] Bus. & Prof. Code §§ 22575-22579 (2004).

[137] *See supra* Part I.A.

[138] *See* Hoofnagle and King, *supra* note 9.

[139] Gramm-Leach-Bliley Act of 1999, 15 U.S.C. § 6809.

[140] Peter Swire, *The Surprising Virtues of the New Financial Privacy Law*, 86 MINN. L. REV. 1263, 1313-14 (2002).

CPPA and the Gramm-Leach-Bliley Act (GLB) have, understandably, faced intensive criticism.[141] But as Peter Swire argues, notice requirements such as those present in the GLB "work surprisingly well as privacy legislation."[142] They work well not because consumers will actually read and act on them. They fail as terms. Rather, they improve privacy because of the behavior they trigger in companies. It turns out that the requirement to describe practices led companies to self-examine and professionalize.

As Swire explains:

> [A] principal effect of the notices has been to require financial institutions to inspect their own practices. In this respect, the detail and complexity of the GLB notice is actually a virtue. In order to draft the notice, many financial institutions undertook an extensive process, often for the first time, to learn just how data is and is not shared between different parts of the organization with third parties.[143]

The "process of self-examination" lead to a "detailed roadmap for privacy compliance" and, ultimately, a salutary "institutionalization of privacy" complete with a class of privacy professionals.[144]

Choosing reporting over privacy policies in the context of financial privacy may achieve regulator goals to a greater degree than privacy policies and without resorting to limitations on company practice. This is so because consumer-facing documents, though overly sophisticated for some as Part I describes, tend to be written in general terms. They seldom contain high levels of technical detail that consumers, after all, will fail to understand. Reports to agencies can be much more detailed. Or consider a second advantage: courts will

[141] *See id.* at 1314-15 ("Consumer groups, privacy advocates, and members of Congress have also harshly criticized the GLB notices.").

[142] *Id.* at 1263.

[143] *Id.* at 1316.

[144] *Id.* at 1316-17. Kenneth Bamberger and Deirdre Mulligan make a similar point about how uncertain regulation led to the professionalization of privacy and, in turn, consumer-friendly privacy innovation. *See* Bamberger and Mulligan, *supra* note 2 passim.

not assume that consumers have read reports to federal agencies and hence will not hold consumers to an understanding they do not have.[145]

To the extent consumers have choices within the context of an Internet service—to opt out of tracking or sharing, for instance—we should be thinking neither of privacy policies nor reports. These options, when consumers have them, tend to be packaged with physical or online disclosure they will not read.[146] What is required may be narrowly targeted notification (in the form of an email, text, pop up box, or a phone call, for instance) that, absent user action, their data will be collected by or transmitted to third-parties.

The possibility of selection error is not necessarily about a choice between classic notice and its alternatives. A warning might also be the wrong call. Proposition 65 in California requires that firms and individuals post a warning at any premises or alongside any product that may contain any of a list of hundreds of chemicals "known to the state of California" to cause birth defects or cancer.[147] Presumably the legislature was interested in all of the typical benefits of notice over substantive regulation related to cost and autonomy.[148] The decision to use notice is easy to criticize. People who come across these notices have no way to put the information into practice.[149] As such, individuals experience a "cascade of fears" with no apparent recourse.[150]

Does this mean that California should abandon disclosure as a means to domesticate the problem of potentially toxic chemicals? Perhaps, but perhaps not. Proposition 65 did manage to drive down the impact of these chemicals, but not by warning Californians away. The law led manufacturers and premises owners

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[145] *Cf.* Hillman, *supra* note 10; *supra* note 76 (assembling cases).

[146] Jeff Sovern, *Opting In, Opting Out, Or No Options At All: The Fight for Control of Personal Information*, 74 WASH. L. REV. 1033, 1085-87 (1990). See *also* Ben-Shahar & Schneider, *supra* note 12 at 195-96 (describing Comcast opt out).

[147] Safe Drinking Water and Toxic Enforcement Act, Cal. Health & Safety Code § 25249.6 (West 1999).

[148] *See supra* notes __ to __ and accompanying text (discussing why notice is popular).

[149] *Cf.* THAYLER AND SUNSTEIN, NUDGE at 90 (making this point about the Homeland Security Terror Threat Alert).

[150] Dalley, *supra* note 24 at 1123.

to take stock of whether they were using the Proposition 65 chemicals in the first instance.[151] Some realized that they were and, further, that doing so was not necessary. This led firms to abandon the chemical in favor of a presumably less toxic one.[152]

California's citizens cannot put Proposition 65 warnings into practice. And yet a requirement that businesses disclose to the state and/or make available to the public a list of chemicals they use might have accomplished the same goal without crowding out other warnings or creating a sense of helpless unease. Reporting was arguably the better move here than warning, furthering the regulatory goal with fewer unintended consequences.

Many of these same goals might have been accomplished through an alternative notice regime—one that preserves the advantages of notice as a regulatory mechanism (for instance, political palatability or business autonomy) but reduced the costs to businesses and to consumer time. A requirement that financial institutions create a report of its privacy practices and furnish it to the government and other stakeholders upon request would also lead to self-examination and may police firm behavior in other ways.

What these and similar examples show is that domesticating a problem using mandatory notice requires understanding what notice is appropriate to a given context. Selecting the wrong form of notice—or omitting a necessary, concurring notice strategy—can lead to failure. Skeptics of notice must show not only that the notice strategy selected does not work, but that no notice strategy could work. Critics have not, in the main, discharged this burden.[153]

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[151] *Id.* at 1123-24.

[152] Manufacturers of Liquid Paper, for instance, reformulated its product. Viscusi, *supra* note 56 at 650. Being an information strategy, the mechanism did not require the government to weigh the pros and cons of the chemical Liquid Paper—and countless other products—contained.

[153] In privacy, the context of these latter examples, Fred Cate examines the enforcement of two principles—notice and choice—through the mandatory provision of terms. He does not examine whether warnings, notifications, reporting, or some combination thereof might be effective, instead calling for "substantive restrictions on data processing designed to prevent specific harms." Cate, *supra* note 6 at 345.

Writing about securities regulation, Susanna Kim Ripken examines what amounts to reporting requirements and concludes that "[r]ather than avoiding the merits of difficult questions, it may be time for regulators to lay aside the gospel of disclosure in favor of more substantive laws that

III. EXPERIENCE AS NOTICE

Classic notice relies on informed decisions-making to accomplish its goals. But there are alternatives that do not necessarily require the same, unlikely consumer engagement. These information strategies can nevertheless succeed at helping to overcome regulatory challenges without relying on the sorts of substantive restrictions on conduct that industry, regulators, and scholars as inappropriate in the context of online privacy.[154]

Of course, none of these alternatives are perfect; there are potential problems with each. People can miss warnings posted on equipment, sometimes leading to injury.[155] People lose warnings that accompany products, or else buy products secondhand without the packaging or owner's manual.[156] Warnings displayed to often will "wear out." This is the well-evidenced phenomenon whereby people begin to tune out or ignore notices that they see all of the time.[157] The result can be an escalating cycle: because of the proliferation of notices, new ones must get "louder and louder" to have a chance of any impact.[158]

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regulate conduct directly." Ripken, *supra* note 2 at 147. Ripken does not asses whether terms, notifications, or warnings may be of use in this context. *Cf.* Ben-Shahar & Schneider, *supra* note 12 at 105 ("Our task is *not* to propose an alternative. … We believe commentators and lawmakers must instead undertake the intellectually burdensome and politically painful work of tailoring solutions to problems.") (emphasis in original); Latin, *supra* note 51 at 1295 ("Good produce warnings may be useful, indeed necessary … but their value is inherently limited and they consequently should not be treated as legally a acceptable alternative to safer product designs and marketing strategies.").

There are even federal statutes that provide agencies with a choice between one type of disclosure and a complete ban. *See* Jolls and Sunstein, *supra* note 42 at 280, citing the Consumer Product Safety Act, 14 U.S.C. §§ 2051-85, and the Toxic Substance Control Act, 15 U.S.C. §§ 2601-92.

[154] *See supra* note 2. Industry makes this point again and again in comments to the FTC, Department of Commerce, and other federal agencies. [string cite]

[155] *See* Latin, *supra* note 51 at 1210.

[156] *Id.* at 1208-09.

[157] *See* THALER AND SUNSTEIN, NUDGE at 90-91 (discussing wear out in the context of computer software; Jolls & *Sunstein, supra* note 16 at 212 (describing "wear out" as the phenomenon "in which consumers learn to tune out message that are repeated too often").

[158] *See* Goldman, *supra* note 16 at 1180 (describing the escalating cycle of louder and louder disclosure).

Or consider notifications. Sometimes these notices do not reach the intended audience because of wrong or outdated assumptions by lawmakers about media consumption or communications technology. A 1978 bankruptcy law, for instance, still requires that notice of municipal bankruptcy be posted "in three newspapers of general circulation."[159] Courts have upheld the use of email for service of process,[160] notwithstanding the danger posed by spam filters[161] and the general, "best efforts" architecture of Internet protocol.

This Part explores whether information failures are as inevitable as the deepest skeptics of notice appear to assume. Whereas Part II questioned the necessity of informed decision-making to the concept of mandatory notice, this Part questions the necessity of using words or symbols. Upon abandoning the assumption that notice must be verbal, we can begin to explore whether notice might retain both its advantages and its efficacy as a regulatory mechanism.

The first section explores novel communications techniques, drawn from contemporary social science, that might improve information strategies by leveraging our hardwired reactions to technology and design. This section explores how designers might leverage familiarity with one technology, for instance, to warn about another. It also examines how our hardwired responses to certain design techniques such as formality and anthropomorphism might place individuals on a kind of "visceral notice" that they should careful about disclosing person information or other activities.

These techniques may improve an individual's mental model of the service they are using. Placing an anthropomorphic cartoon teacher on a website will be more effective than written notice at signaling to a child that someone may observe what she posts on the web. But they do not use the same mechanism as notice—in the sense of requiring someone to digest text in an effort to inform decisions-making. The second section explores how mediated environments such

[159] 11 U.S.C. § 923.

[160] *See, e.g.*, Rio Properties v. Rio International Interlink, 284 F.3d 1007 (9th Cir. 2002).

[161] *See Pace et al. vs. AIG*, 8 C 945 (N.D. Ill.; Nov. 1, 2010) (spam filter allegedly filtered out notification of the right and timing of an appeal).

as online services might permit a shift from "theoretical" or general knowledge to practical or specific understanding, thereby improving privacy notices. This section offers several examples of the technique in practice by actual Internet companies and imagines others.

The advantage of using experience, rather than text or symbols, to change a consumer's mental model of a situation or service is experience happens instantaneously, is nearly universal in its impact, and, importantly, does not require the consumer to leave the fun or functionality of the service. Moreover, the use of highly-tailored notices leveraging practical instead of theoretical knowledge have the potential to resuscitate notice in the context of privacy and beyond. But there are disadvantages as well. The final section discusses how to overcome concerns over expertise and free-speech through the use of goal-based rules and other incentives for companies to adopt different variations of these strategies.

A. Visceral Notice

Language is not the only means to convey information. Nor is it always the most efficient. A simple example is pain.[162] You stub your toe. Seized by pain, you ask: "Why do I have to feel this? Why can't my body simply *alert me* that I've hurt myself?" Such a system, while superficially attractive, would be insupportably inefficient. Moment to moment, pain, pressure, and other physical sensations communicate a great deal of information (location, severity, type, duration, etc.) without recourse to language. Imagine the alternative: a dizzying concatenation of written, symbolic, or aural messages we would quickly tune out.

The principle that we can *experience* information can be, and in cases has been, pressed into the service of notice. You can add yet another traffic sign to say "road narrows," or you can accentuate the roadway with rumble strips. You can posts signs throughout a city reminding pedestrians that electric cars are

[162] Another example is a game one learns by playing (or a language one learns by speaking).

silent, or you can require car manufacturers to introduce an engine sound.[163] You can write a lengthy privacy policy that few will read, or you can design the website in a way that places the user on guard at the moment of collection or demonstrates to the consumer how their data is actually being used in practice.

Like language, experience has the capability of changing our mental models—that is, our understandings and assumptions about a given product, environment, or system.[164] Yet unlike language, experience can take place in an instant, translate across capacities, and retain its salience over time. In recognition of the importance of form and format, some regulations already require that notices be placed at a particular location or use a particular font.[165] Such regulations could be extended to require or encourage specific design elements with a well-evidenced significance to consumer understanding.

1. Familiarity as warning.

Often what we mean by intuitive is actually familiar. We grow up with particular technologies and acclimate—that is, begin to expect certain behaviors and interactions. One example is the hyperlink: when we come across text on a website that is underlined and a different color from the rest of the text, we know that clicking on it with a cursor will lead somewhere else.

This familiarity breeds a kind of opportunity. Designers can use it to create mental models in consumers of new technology.[166] Consider three interventions based on the principle of familiarity, the latter two of which are

[163] *See supra* notes __ and accompanying text.

[164] A "mental model" is the set of expectations, assumptions, and knowledge individuals bring to their experiences of technology and the world. *See* D.A. NORMAN, THE PSYCHOLOGY OF EVERYDAY THINGS 17 (1988); Abhay Sukumaran & Cliff Nass, *The Role of Social Observation in Understanding Novel Technologies*, CHI 2009 1, 1 ("This literature loosely characterizes mental models as cognitive tools that allow users to make sense of unfamiliar technologies and predict how a system will respond to their actions."). One common misperception is that well-designed products do not need warnings. In a sense, well-designed product *are* warnings. *Cf.* D.A. NORMAN, THE DESIGN OF FUTURE THINGS 135 (2007) (discussing "self-explaining" objects).

[165] *See* Craswell, *supra* note 93 at 582.

[166] *Cf.* NORMAN, DESIGN OF FUTURE THINGS, *supra* note 164 at 150 (discussing the reintroduction of "natural signals" to new contexts).

regulatory in nature. Each intervention leverages the individual's familiarity with a previous technology to realign expectations with reality—a function often reserved for notices or other inefficient forms of communications that people will misunderstand or come to ignore.

The first example involves cell phones and the elderly. Older consumers did not grow up with cell phones and can have trouble using them.[167] Commercially available cell phones come with an owner's manual that explains in detail how the phone works. Presumably this is not enough, however, for the uninitiated: not all consumers, elderly or otherwise, will read or understand these instructions.[168] Even if they do, it will take time and effort to get up to speed on a new technology.[169] Another alternative is to eat up the consumer and provider's time with phone calls to customer service. Again, this is a costly communication with no guarantee of success.

Faced with precisely this dilemma, the handset giant Samsung intervened through design. Samsung created the "Jitterbug," a skeumorphic cell phone that mimics traditional phones in most every respect, down to the dial tone.[170] The dial tone, though completely unnecessary to the operation of the cell phone, signals to the elderly user that he or she may proceed with the call. The Jitterbug's design makes it possible for seniors to begin using cell phones without recourse to a lengthy disclosure or conversation.[171]

This basic technique can be—and has been—used as a substitute for verbal or symbolic warning. Regulators in the United States and Europe became concerned that electric or hybrid vehicles do not emit an engine noise. There is

[167] Jesse James Garrett, *A Cell Phone for Baby Boomers*, BUSINESSWEEK, May 29, 2007.

[168] *See, generally,* Latin, *supra* note 51.

[169] *Id.* at 1215-20 (discussing competing demands for attention in the context of good warning in product liability).

[170] *See* Garrett, *supra* note 167.

[171] *Id.* Apple also designed its popular iPad book reader to respond to the motion of flipping the page. Yet another example is "Slurp," a "tangible interface for manipulating abstract information as if it water. Taking the form of an eyedropper, Slurp can extract (slurp up) and inject (squirt out) pointers to digital objects."

evidence that the absence of such noise leads to more pedestrian collisions.[172] Rather than blanketing the sidewalks with warning signs, however, which could come to be ignored due to "wear out" and could not be read by the people that need them most (the visually impaired), these regulators moved toward another expedient: requiring fake engine noises that change depending on the distance of the car.[173]

Consider another example involving digital cameras and privacy. Analog cameras make a click and, often, emit a flash when taking a picture. Digital cameras are by default silent and many require very little light (and hence do not use flash as often). They tend to be smaller and come in a wider variety of shapes and sizes. Importantly, digital cameras can be built into devices with other common uses unrelated to capturing an image—most notably, cell phones.

This change creates a new opportunity for surreptitious photography, raising a privacy concern analogous to that discussed by Samuel Warren and Louis Brandeis in *The Right to Privacy*.[174] The subject no longer knows she is being photographed. One way to address this issue is to penalize taking a photo from a cell phone or other digital camera without consent. This imposes an enormous cost on both the photographer and the subject. Another is to post warnings throughout public places. Lawmakers in Japan and the United States instead proposed requiring that digital cell phone cameras reintroduce the shutter

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[172] A 2009 study undertaken by the National Highway Traffic Safety Administration found that low speed collisions with pedestrians were "significantly higher" with hybrids and electrical cars than gas ones. NHTSA, "Incidence of pedestrian and bicyclist crashes by hybrid electric passenger vehicles" (DOT HS 811 204), available online at http://www.nrd.nhtsa.dot.gov/Pubs/811204.PDF. *See also* European Commission, SEC(2010) 631 [6.2] (Feb. 7, 2007) ("The Commission services are also aware of the possible safety risks if 'quiet' vehicles like hybrids or electric vehicles are not adequately noticed by pedestrians or other vulnerable road users."); European Commission, "Clean and energy-efficient vehicles - European strategy for the uptake of green vehicles" MEMO/10/153 (Apr. 28, 2010) (noting "potential risks due to the quietness of electric vehicles").

[173] *See, e.g.*, "Pedestrian Safety Enhancement Act of 2008," H.R. 5237 (Cong. 110) (proposing requirement to address relative quiet of electric and hybrid cars).

[174] Samuel Warren & Louis Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 195 (1890) (opening their famous essay with a concern over the privacy ramifications of "[r]ecent inventions and business methods" such as "instantaneous photography").

sound of sufficiently volume to place the subject of a photo on notice that a picture was being taken.[175]

In these and other examples, a company or lawmaker has recognized that the previous state of a given technology affords the means to realign expectations with reality with relatively little effort. By hearing the clicking sound issuing from the camera, the subject instantaneously realizes that she is in the presence of a recording technology. She is placed in the same position as before the problem arose. The alternatives—a consent requirement, for instance, or the ubiquitous display of signage—are meanwhile poor and unlikely to be effective.

There is no difference, a least in principle, why the design of products to leverage a consumer's familiarity with a previous technology should be treated differently by the law than traditional warnings. The goal is the same as a warning: to alert one or more individuals to a specific danger within a particular context. There may be a difference in practice—it will be hard to determine whether the warnings was "good" in the Comment j sense, for instance.[176] But the law should not see a distinction between the essential mechanisms of experience and words.

2. Psychological response as notice.

In addition to bringing a set of intuitions to new technologies or contexts, people share hardwired psychological reactions to certain technology and design. These reactions have, on some accounts, a biological or evolutionary basis.[177]

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[175] In the 111th Congress, a bill was proposed—H.R. 414, the Camera Phone Predator Alert Act of 2009—that would have required cell phones to make an audible shutter sound. Another example comes from Microsoft Research. To address the problem of computer cameras and microphones surreptitiously recording user information, the team built a "sensor-access widget" that "provides an animated representation of the personal data being collected by its corresponding sensor, calling attention to the application's attempt to collected the data." The researchers choose "virtual blinds" because of users familiarity with pulling down blinds for greater privacy. John Howell and Stuart Schechter, *What You See Is What You Get*: *Protecting users from unwanted use of microphones, cameras, and other sensors*, Microsoft Research (2010).

[176] Restatement of Torts (Third): Product Liability § 402A; *see also* Latin, *supra* note 51 *passim*.

[177] *See, e.g.*, CLIFFORD NASS AND SCOTT BRAVE, WIRED FOR SPEECH: HOW VOICE ACTIVATES

Regardless, there is extensive evidence that people react in specific, predictable ways to certain kinds of visual and audio cues irrespective of their underlying familiarity with technology.[178] Companies and regulators can leverage these techniques to advance policy goals, including consumer or citizen understanding.

Consider the way people react to social technology—that is, interfaces that feature voices, eyes, or other anthropomorphic qualities. It turns out we are hardwired to react to anthropomorphic design as though a person were really there.[179] We know intellectually that what we are seeing is not a real person, but for many purposes our brains are incapable of shutting off these psychological reactions to the perceived presence of another.[180]

Among these reactions is the feeling of being observed and evaluated. In one study, people paid more often for coffee on the honor system when a picture of a pair of eyes was present.[181] In another, people skipped sensitive questions on an online questionnaire and engaged in more self-promotion when the interface appeared like a person.[182] In each case, the researchers concluded that the changes to behavior resulted from a feeling of being observed—correct or not.[183]

AND ADVANCES THE HUMAN-COMPUTER RELATIONSHIP 12 (2005) ("The human brain evolved in a world in which only humans exhibited rich social behaviors, and a world in which all perceived objects were real physical objects"); BYRON REEVES AND CLIFFORD NASS, THE MEDIA EQUATION: HOW PEOPLE TREAT COMPUTERS, TELEVISION, AND NEW MEDIA LIKE REAL PEOPLE AND PLACES 3 (1996); ("[O]ver the course of 200,000 years of evolution, humans have become voice-activated with brains that are wired to equate voice with people and to act quickly on that identification ... In fact, humans use the same parts of the brain to interact with machines as they do to interact with humans.").

[178] *See* REEVES AND NASS, *supra* note 177 at 252 (observing no difference in the effect of anthropomorphism on trained technologists).

[179] *See* NASS AND BRAVE, *supra* note 177 at 4.

[180] *Id. See also* infra notes __ - __.

[181] Melissa Batson *et al*., *Cues of Being Watched Enhance Cooperation in a Real-World Setting,* BIOLOGY LETTERS, 2(3):412–14 (2006).

[182] Lee Sproull et al, *When the Interface is a Face*, 11 HUM.-COMPUTER INTERACTION 97-124, 112-16 (1996). *See also* Matthew Edwards, *Empirical and Behavioral Critiques of Mandatory Disclosure: Socio-Economics and the Quest for Truth in Lending*, 14 CORNELL J.L. & PUB. POL'Y 199, 204 (2005) ("Put bluntly, many critics simply do not think that disclosure works.").

[183] *See, e.g.*, Roaul Rickenberg & Byron Reeves, *The Effects of Animated Characters on Anxiety, Task Performance, and Evaluations of User Interfaces*, 2 CHI LETTERS 49 (2000). Perhaps paradoxically, this study found that social interfaces increase user trust—often cited as a key component of e-commerce. Thus, the subjects of a study that used animated characters to create

Research shows a similar effect where users are reminded of themselves, for instance, through presentation of their image in a mirror.[184]

The same turns out to be true of formal, as opposed to casual, frames or interfaces. Researchers at Carnegie Mellon experimented with how interface formality might interact with user response to a personal survey.[185] The casual format of the survey used vivid colors (red, yellow) and began with the header "How BAD R U???" and an emoticon devil. The formal format used more subdued colors (blue, black), a somber title, and an official looking seal.[186] The study found that subjects responded to personal questions more honestly where the interface was casual than in the control or formal condition.[187]

Studies of this kind are commonly organized to measure behavior, not cognitive aspects such as expectation or belief. As such, one's instinct might be to place the studies and their regulatory insights in the context of soft paternalism, rather than notice. Maybe they are simply "nudges" that have little to do with preference or reasoning.

There is evidence, however, that hardwired psychological responses to technology change the user's mental model, that is, their basic understanding of a product or situation. A study out of Stanford University, for instance, examined how changing the formality of a photo-sharing interface changed people's stated expectations about the purpose and norms of the website.[188] Subjects had expectations about a more formal website that they were able to articulate. Preliminary results of another recent study showed that the reason people disclose

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the appearance that the individual was being monitored actually rated the website higher on trust than subjects where the character was absent.

[184] *See, e.g.*, Charles Carver and Michael Scheier, *Self-focusing effects of dispositional self-consciousness, mirror presence, and audience presence*, J. OF PERSONALITY AND SOCIAL PSYCH., 36(3), Mar 1978, 324-332.

[185] Leslie K. John, Alessandro Acquisti, and George Loewenstein, *Strangers on a Plane: Context-dependent Willingness to Divulge Sensitive Information*, J. OF CONSUMER RESEARCH (Feb. 2011).

[186] *Id.*

[187] *Id.*

[188] Abhay Sukumaran and Cliff, *Socially Cued Mental Models*, PROC. CHI 2010, p. 3379-3384 (2009).

more on casual websites than formal ones is that they believe less information is being collected and retained.[189]

Thus, at least some interventions that leverage our hardwired response to technology appear to be taking an explanatory short cut: consumers end up in a similar place to where they would had they read a warning or a privacy policy. They then hopefully take the action most appropriate to that understanding. If this is right, it follows that these and other hardwired responses to design could be pressed into the service of a kind of visceral notice.

For example: one of the central problems is that people are routinely being tracked by a variety of companies and other parties, but do not realize that they are.[190] Enter privacy policies, the purpose of which is ostensibly to realign users' understanding with the realities of web use—various forms of collection from websites and their advertising partners—through a general description. But, of course, no one wants to take the time away from their web experience to read these policies.[191] Worse yet, many are falsely reassured by the existence of a link labeled "privacy"—a poor heuristic in that such notices are required by law and can say just about anything.[192]

The introduction of an anthropomorphic cue or a similar design element could drive home the fact of tracking in a way that privacy policies cannot. This might have two kinds of effects. The first is to make consumers aware of tracking. Should they experience this tracking as invasive or uncomfortable, they might stop using the service. Imagine, for instance, if each advertising network on the Internet had an avatar which ran onto the bottom of the screen to denote the fact that the network was following the user. Users could click on the avatar to

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[189] Victoria Groom and M. Ryan Calo, *User Experience as a Form of Privacy Notice: An Experiment*, Working Paper, Privacy Law Scholars Conference 2011 (experimental study on the efficacy of various techniques of non-linguistic notice on consumer privacy expectations).

[190] *See* Editorial, Enter Search Term Here, Forever, N.Y. TIMES, Aug. 21, 2006, at A16 ("When people search the Internet in their homes, it feels like a private activity."). For a detailed discussion of the dangers of tracking, see generally Daniel Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393 (2001).

[191] *See supra* note __.

[192] *See supra* note 9 and accompanying text.

opt of tracking (or to hide the avatar if they find it annoying). This design intervention would convey the fact of tracking in a far more salient way than lines in a privacy policy.

The second is to place consumers on alert that the information they supply might be seen by others. Thus, in certain sensitive collection environments, such as websites aimed at children, regulators could impose a requirement that data collection forms achieve a sufficient degree of formality to place children on guard. Today, design incentives tend to be the opposite. Children's websites tend to be the most casual on all the Internet,[193] despite that lawmakers are concerned enough with youth privacy to pass a law requiring or encouraging enhanced notice for websites aimed at those under the age of thirteen.[194]

These methods have application beyond privacy. Consider the context of website comment etiquette and cyber-bullying. One of the central problems of online etiquette appears to be that children and other users do not experience their communications as face-to-face conversations with an attendant set of expectations and mores.[195] This can lead to anti-social conduct, whether or not coupled with the quasi-anonymity of a username.[196] Websites attempt to police against such discourtesy through written notice—generally, terms of service or community guidelines that few take the time to read—coupled with selective enforcement.

Clever design leveraging hardwired reactions to technology could improve substantially on terms and guidelines in a few ways. First, the experience of commenting could be made to feel more like an in-person conversation, for

[193] They are at the same time some of the most aggressive. As Jeff Sovern cites to a study by the Federal Trade Commission as evidence of some of the tactics directed at collecting information from children, including invitations to sign guest books and to sign up for pen-pal programs. Sovern, *supra* note 146 at 1041. Interestingly, one of the tactics involved the use of fictional characters to pose questions. *Id.* An additional advantage of recognizing by consumer agencies of the power of design to affect disclosure is to recognize abuses.

[194] Children Online Privacy Protection Act, 5 U.S.C. §§ 6501–6506 (1998).

[195] Patricia Abril, *Private Ordering: A Contractual Approach to Online Interpersonal Privacy*, 45 WAKE FOREST L. REV. 689, 699 n.74 (2011) ("Psychologists have found that face-to-face interaction and physical feedback help navigate the human brain through social situations, permitting empathy and defining appropriate interpersonal behavior.").

[196] *Id.* at 699.

instance, by graphically representing that a comment to a post is also a comment directed at the author. Second, users that post content could select the way it is framed—more formally, for instance—in an effort to signal the target community and level of discussion. Such interventions, being embedded in user experience, happen instantaneously and would not require anyone to leave the fun and function of the website by clicking on a link.[197]

B. Individually-Tailored Notice

A final technique leverages clever design not to do away with all words, but to privilege individual experience. This technique involves eschewing reliance on general terms in favor of tailoring notice very specifically to the company's engagement with the exact individual. This technique bears some affinity to the passing suggestion by Jon Hansen and Doug Kysar that populations be segmented by demographics to determine what notices they will see.[198] A closer parallel is Edward Rubin's argument that notice fails to protect consumers because it relies on what philosophers call "theoretical" knowledge, as opposed to practical knowledge delivered through interactivity with the consumer—an issue he explores in a 2006 book chapter.[199]

In the context of "debiasing," that is, using law to combat known cognitive limitations, Christine Jolls and Cass Sunstein explore the use of anecdote or concrete instance to overcome optimism bias.[200] The idea is that warning a patient of the numerical risk of breast cancer, for instance, will not lead to an accurate assessment because people tend to discount the possibility a given

[197] Of course, it follows that most of the worse comments—racist or sexist rants, for instance—will not disappear merely because of visceral notice. Many presumably know and intend that their comments will cause harm. The technique is promising only for low-level discourtesy. It may be prove especially powerful, however, in the context of cyber-bullying, where the bias is less virulent and perpetrators ostensibly less hardened.

[198] Hanson and Kysar, *supra* note 64 at 1561-63.

[199] Rubin, *supra* note 21.

[200] *See* Jolls & Sunstein, *supra* note 16 at 210.

negative event will occur to them.[201] The authors concluded that regulators should consider mandating the recitation of a particular negative outcome—a story about a hypothetical woman's battle with cancer.[202]

Technology and clever design create the possibility of tailoring the anecdote to each individual consumer, thereby showing them what is specifically relevant, instead of describing generally what might be.[203] A simple example is a requirement that lenders calculate exactly how much money a loan will cost a borrower each month and overall, as well as the exact amount of time it will take to pay off. This practice is in places routine and, although imperfect, suggests a way to tailor financial terms to individuals. We can imagine further inputs—for instance, what happens if the borrower misses a payment or if interest rates change—to dramatize other terms of the deal on offer.

The online context, being mediated, provides strong examples. Consider three. Mozilla, the company (technically, foundation) behind the popular Firefox Internet browser, invites users to test out new features in Mozilla Labs using Test Pilot.[204] Consistent with standard legal practice, Mozilla provides a privacy policy and terms of use that explain, generally, what information Mozilla might collect and how it might use that information. About one study, Mozilla says: "It will periodically collect data on the browser's basic performance for one week."[205]

Notice skeptics will observe that—given what we know about user behavior toward terms and the impossibility of conveying sufficiently fulsome notice in an easily digestible format—these documents and statements are unlikely to accomplish their avowed goals.[206] But Mozilla does not stop at this

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[201] *Id*.

[202] *Id.*

[203] Rubin, *supra* note 21 at 52.

[204] Mozilla Labs, Test Pilot, online at https://testpilot.mozillalabs.com/ (last visited March 14, 2011).

[205] Mozilla Labs, Test Pilot, Current Test Cases, online at https://testpilot.mozillalabs.com/testcases/ (last visited March 14, 2011).

[206] Or, as Hillman's boilerplate example shows, they may do more consumer harm than good. *See generally* Hillman, *supra* note 10.

general statement. Prior to transmitting user information from the user's computer to Mozilla's servers, Mozilla actually shows users a report of what information has been collected and asks them to review. Thus, users actually see a specific, relevant instance of collection and decide to consent on this basis.

One of the first companies to use this general technique was the Internet search giant Google, Inc. Google has dozens of services—for both consumers and advertisers—governed by a complex series of interrelated policies.[207] In connection to ad targeting, one of two-dozen product policies, Google explains:

> To serve ads that are relevant and tailored to your interests, we may use information about your activity on AdSense partner sites or Google services that use the DoubleClick cookie. Some of these sites and services also may use non-personally identifying information, such as demographic data, to provide relevant advertising.[208]

More information is available but, as discussed in detail in Part I, users are not likely to access it. Privacy policies are required under state law.[209] And they do not work. Far more powerful are the ancillary tools Google created to help users understand what data Google has about them and how it will be used. Thus, for instance, the Google Dashboard permits users to see all in one place what services store any of their information.[210] Google Ads Preferences permits users to see what guesses Google has made about them in order to serve relevant ads.[211] Users may also make changes or delete the profile entirely.

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[207] Google, Privacy Center, online at http://www.google.com/intl/en/privacy/ (last visited March 14, 2011) (listing services).

[208] Google, Privacy Policy for Google Ads and the Google Display Network, online at http://www.google.com/privacy/ads/privacy-policy.html (last visited March 14, 2011).

[209] California Online Privacy Protection Act, Bus. & Prof. Code §§ 22575-22579 (2004).

[210] Judy Shapiro, *Google Dashboard Changes Our Thinking About Privacy*, Ad Age Digital, Nov. 10, 2009, online at http://adage.com/article/digitalnext/digital-privacy-google-dashboard-thinking/140399/ (last visited March 14, 2011).

[211] Google, Ads Preferences, Frequently Asked Questions, online at http://www.google.com/ads/preferences/html/faq.html (last visited March 14, 2011).

Other companies have followed Google and Mozilla's lead. The Internet company Yahoo! now has an "Ad Interest Manager" that shows even greater detail than that of Google.[212] A more recent example is Facebook's Interactive Tools, one of which permits users to see how their profile looks to those who are not signed in—that is, to cops, teachers, potential employers, and others that might check up.[213] Another permits users to target a pretend ad so that they at least understand what information third-party advertisers see about them.[214] These tools, while imperfect, show users how their information is actually used, as opposed merely to telling them how it might be.

We can imagine the use of this technique offline as well. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) requires lengthy notices to patients about how a pharmacy, hospital, or other health system will use their information.[215] Individuals are supposed to read these documents and sign off on them.[216] Patients might be better served by a dynamic, self-updating file that showed them what information their provider had and how it was being used and shared. Imagine that, upon entering a hospital, patients were to be handed a Kindle or similar tablet device tracking their chart and other relevant information throughout their stay. If they see something they do not understand, they can ask (or object) in real-time and will leave with a better understanding to inform future choices.

In essence, we need less general telling and more individual showing. Telling employs lengthy prose that no one reads or particularly understands to describe all possible practice. Executed well, showing describes what has actually occurred, thereby embedding information about the company's practices

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[212] *See* Yahoo! Privacy Policy, Yahoo! Privacy Policy, Ad Interest Manager, online at http://info.yahoo.com/privacy/us/yahoo/opt_out/targeting/ (last visited March 14, 2011).

[213] Mike Swift, *Facebook Develops New Privacy Policy*, SAN JOSE MERCURY NEWS, Mar. 9, 2011, online at http://www.heraldonline.com/2011/03/09/2895296/facebook-develops-new-privacy.html (last visited March 14, 2011).

[214] *Id.*

[215] Pub. L. 104-191.

[216] *See* 45 C.F.R. §§ 160.102 *et seq.*

in highly relevant information—similar to how we might learn the rules of a game by playing it.[217]

C. Regulatory Challenges

Experience can constitute a form of non-traditional notice. To the extent that information strategies attempt to create in individuals an accurate understanding of a product or activity, requiring a change to consumer experience may be more powerful than written notice. Information about privacy that is built into the experience of a website, for instance, does not require consumers to leave the fun and functionality of the service by clicking on a link and reading a long policy. A person's familiarity with, or hardwired response to, a technology does not wear out in the same way as a repeated message.[218]

We can imagine a variety of challenges that reliance on personal experiences present, however, that might make the transition from verbal notice appear impracticable to lawmakers and courts. Experiences are subjective and may not provide the same hook for enforcement as written disclosures. Moreover, we may worry about forcing firms toward a particular aesthetic from a First Amendment perspective. This section addresses those challenges and provides the beginnings of an answer.

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[217] One counter-argument is that consumers need to learn the rules of the game *before they play*. This is true in an ideal world. Showing improves on the world we have by helping consumers understand what is presently going on. This permits them to leave if inclined and at least stop sharing information going forward.

[218] More study is needed, but preliminary evidence suggests that people will not become inured over time to design over time. Thus, for instance, in the study of paying for coffee on the honor system, the effect of eyes remained the same at week nine as in week two. *See* Bateson et al. *supra* note 181 at 2. Moreover, the effect of computers as social actors was found not to change for groups who were more familiar with computer technology. *See* REEVES AND NASS, *supra* note 177 at 252.

1. Some objections.

Experience is variable. Consumers bring a history to new contexts and may not experience the same product or situation the same way. People do not necessarily see the same exact colors or taste the foods the same way, let alone activities or objects.[219] A person who is not familiar with dial telephones will not understand how to use the Jitterbug. An arguable advantage of textual notice is that says the same thing to everyone.

A problem may also arise when we ask state and federal regulators to establish and assess visceral notice strategies. Oliver Wendell Holmes notwithstanding,[220] we may wonder at the capacity of courts or regulators to determine the sufficiency of experience as a kind of legal notice. Anyone can review a privacy policy or product warning and see what it says or depicts; it would appear to require particular expertise in psychology and design to measure how well a non-linguistic notice performed in a given policy context.

A related issue involves the possibility of reliance on notice by parties other than consumers to police against bad practice. A review of Federal Trade Commission enforcement suggests that it may be easiest to prosecute companies for making a claim in their notices that turns out not to be true.[221] Advocates and other third-parties also look to notices to determine what the company does with user information.[222] Thus, textual disclosure remains the obvious format for enforceable claims.

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[219] *See. e.g.*, ROBERTA LARSON DUYFF, AMERICAN DIETETIC ASSOCIATION COMPLETE NUTRITION GUIDE (3 ed) 308 (2006) ("Even in the same family, people experience taste differently. The intensity of taste depends partly on how many fungiform papillae … a person has on his or her tongue.").

[220] OLIVER WENDELL HOLMES, THE COMMON LAW 1 (1881) ("The life of the law has not been logic; it has been experience.").

[221] *See* Marcia Hofmann, *The Federal Trade Commission's Enforcement of Privacy*, inPROSKAUER ON PRIVACY (Christopher Wolf ed., 2008) (reviewing FTC enforcement of online privacy through 2010). *See also* Cate, *supra* note 6 at 357 ("What is striking about the FTC's approach is not only its exclusion of most FIPPs, but also its transformation of collection limitation, purpose specification, use limitation, and transparency into mere notice and consent.").

[222] The D.C.-based Electronic Privacy Information Center has repeatedly filed complaints against companies to the Federal Trade Commission on the basis of differences between their

Finally, not everyone will be comfortable with the government dictating how a website or product should physically appear. It is one thing to force a company to link to a privacy policy on a stand-alone web page; changing the look and feel of a website presents a unique First Amendment issue. Consider one example of notice tailoring that sparked a free speech challenge in California. California law at one point required that credit card companies disclose to individuals consumers the length of time it would take them to pay off their balance through minimum payments.[223] The companies fought back on free speech grounds. They ultimately prevailed in court on a federal preemption argument, but not before a sympathetic hearing of their speech claim.[224]

2. Goal-based rules and other responses.

These are valid criticisms. But they are amenable to a number a responses. As an initial matter, written notice is hardly immune from the criticism that different people will walk away with different understandings.[225] This is not necessarily a problem unique to experience. Moreover, regulators arguably should be equipped to assess consumer experiences. Some scholars, such as Woodrow Hartzog, see exactly how web design and settings can form the basis of legal obligations.[226] Special expertise is one of the reasons we defer to

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privacy statements and actual practice. In several instances, these complaints appeared to have led to the investigations that followed.

[223] Cal. Civ. Code § 1748.13. Thanks to Chris Hoofnagle for this example.

[224] American Bankers Association v. Lockyer, 239 F. Supp. 2d 1000 (2002).

[225] *See* Melvin Aron Eisenberg, *Text Anxiety*, 59 S. Cal. L. Rev. 305, __ (1986).

[226] *See* Woodrow Hartzog, *Web Design As Contract*, 60 AM. U. L. REV. 1635, (2011) ("Judges should better recognize that that users exposed to anthropomorphic features are generally more receptive to the information conveyed and, thus, might internalize that information better than fine-print legalese."), citing M. Ryan Calo, *People Can Be So Fake: A New Dimension to Privacy and Technology Scholarship*, 114 PENN ST. L. REV. 809, 849 (2010). *Cf.* Woodrow Hartzog, *Promises and Privacy: Promissory Estoppel and Confidential Disclosure in Online Communities*, 82 TEMP. L. REV. 891, 907 (2009) ("Certainly technological remedies for protecting information, such as privacy settings, are useful in not only directly restricting what can be viewed, but also in creating an environment of confidentiality. By closing or locking away information, a community member could be seen as communicating a preference for confidentiality for the information contained within."). Nancy Kim has also done some interesting work in this vein. *See, e.g.*, Nancy Kim, *Online Contracts: Form As Function*, manuscript on file with author.

agencies,[227] which have already engaged outside communications experts to test the efficacy of notice in, among other places, the context of financial disclosure under GLB.[228] And there are areas—one is trade dress—where litigants routinely argue over the impact of design.[229]

There is a more fundamental response to the objection that experience will displace the healthy role traditional notice can play, which is that experience and written notice are not mutually exclusive. Part of the reason companies cannot get into technical detail (or at least claim they cannot) today is that privacy policies must be understandable to consumers.[230] If anything, the use of visceral notice to help ensure consumers have an accurate mental model of the products and services they use frees up regulators to require more fulsome and technical disclosures from companies. Thus, agencies and interested third-parties can get a better sense of what the company is doing for purposes of enforcement.

Nevertheless, it is worth investigating how we might achieve the benefits of experience as notice without running headlong into problems of agency or court expertise and First Amendment challenges. One promising avenue may be the use of "goal-based rules" and safe harbors. Rather than require specific design interventions of all companies, regulators might create goals companies must meet or safe harbors companies can meet to avoid additional scrutiny.

The Federal Trade Commission experimented with such an approach as far back as 1973.[231] The *In re RJR Foods, Inc. v. FTC* consent decree contained safe harbor providing that RJR could get out from under the requirements of the decree if could show through an independent survey that consumers were no

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[227] *See* Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 865 (1984).

[228] *See* Levy and Manoj Hastak, *supra* note 14 (studying notice on behalf of five federal agencies and recommending the use of tables).

[229] *See, e.g.*, Qualitex Co. v. Jacobson Products Co., Inc., 514 U.S. 159 (1995) (examining whether the Lanham Act permits the registration of a color as a trademark).

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[231] Craswell, *supra* note 93 at 583. Craswell cites to William Wilkie and David Gardner, *The Role of Marketing Research in Public Policy Decision Making*, J. MARKETING 38, 41 (Jan. 1974), for a summary of this approach.

longer confused by its product.[232] More recently, Senators John Kerry and John McCain introduced legislation that would provide a safe harbor for "privacy by design"[233]—a concept championed by Canadian privacy official Ann Cavoukian and large enough to encompass the ideas discussed in this Part.[234]

Unlike California or federal law that provides the required font size and other parameters for notice,[235] this approach would permit companies to experiment with design with specific goals in mind. One such goal in privacy might be surveys of consumer understanding as to what information is being collected and with whom it is shared. Another is to confront users with information they have disclosed and ask whether it was their intention to do so. Meanwhile, the use of safe harbors mean that companies can choose to participate in lieu of other regulation, thereby mitigating concerns about top down enforcement of particular designs. It could also place assessment and verification in the hands of outside experts with training in design.

CONCLUSION

Notice happens. There is no avoiding its draw as a regulatory mechanism. The many critiques of traditional notice, meanwhile, tend to be well-researched and accurate. It is true that privacy policies and other classic notices fail to accomplish their avowed goal: informing consumers so that they can take select the right product or service and otherwise act in their best interests. And it may be that, in privacy and other circumstances, we are better off moving beyond notice entirely in favor of substantive restriction or another expedient.

This article explores two underexplored alternatives to traditional notice—alternatives free of the usual assumptions critics of notice make. The first is that, where traditional notice fails, alternative notice strategies such as

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[232] 83 F.T.C. 7, 1973 165237 (F.T.C.).

[233] S.799, The Commercial Privacy Bill of Rights Act of 2011.

[234] *See* ANN CAVOUKIAN, PRIVACY BY DESIGN (2009).

[235] California Online Privacy Protection Act, Bus. & Prof. Code § 22575.

warnings, notifications, and reporting might nevertheless be indicated. We should not necessarily look to substantive restrictions unless or until these additional information strategies have been ruled out.

The second alternative is to recognize experience as a form of notice. This article questions the fundamental assumption of notice skepticism that mandatory disclosure must always take the form of words or symbols. Regulators can and do encourage a kind of visceral notice, premised on clever design and well-evidenced human reactions to design. Increasingly, notice can also be tailored to the individual, making it more relevant and able to be acted upon.

The question of whether and when to use notice as a regulatory strategy remains an important one. One hopes regulators, courts, and companies will continue to innovate when it comes to the use of information to protect consumers and citizens. Of course, it may be that, for all of its advantages, notice is ultimately doomed. But this article shows why reports of its death remain exaggerated.