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AGAINST NOTICE SKEPTICISM IN PRIVACY (AND ELSEWHERE)

M. Ryan Calo*

INTRODUCTION

What follows is an exploration of innovative new ways to deliver privacy notice. Unlike traditional notice that relies upon text or symbols to convey information, emerging strategies of “visceral” notice leverage a consumer’s very experience of a product or service to warn or inform. A regulation might require that a cell phone camera make a shutter sound so people know their photo is being taken.¹ Or a law could incentivize websites to be more formal (as opposed to casual) wherever they collect personal information, as formality tends to place people on greater guard about what they disclose.² The thesis of this Article is that, for a variety of reasons, experience as a form of privacy disclosure is worthy of further study before we give in to calls to abandon notice as a regulatory strategy in privacy and elsewhere.

The requirement to provide notice is a very common method of regulation.³ Notice mandates arise in everything from criminal proce-

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1 A similar bill was proposed in the United States that would have required cell phone cameras to make an audible shutter sound. See Camera Predator Alert Act of 2009, H.R. 414, 111th Cong. (2009); see also *infra* notes 45–54 and accompanying text (discussing familiarity as warning).

2 See Leslie K. John et al., *Strangers on a Plane: Context-Dependent Willingness to Divulge Sensitive Information*, 37 J. CONSUMER RES. 858, 858–59 (2011).

3 See RICHARD H. THALER & CASS R. SUNSTEIN, NUDGE 188–93 (2008) (noting multiple examples of mandatory notice); Paula J. Dalley, *The Use and Misuse of Discl-*

dure to financial regulation.⁴ Although “ignorance of the law is no defense,”⁵ there is a sense in which notice underpins law’s basic legitimacy—as alluded to by Lon Fuller’s inclusion of notice in law’s “internal morality”⁶ or Friedrich von Hayek’s distinction between arbitrariness and the rule of law.⁷

In the context of digital privacy, notice is among the only affirmative obligations websites face. California law and federally-recognized best practices require that a company offering an online service link to a privacy policy.⁸ The basic mechanism behind the 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.⁹ These decisions are to police the market by rewarding good practices and penalizing bad ones.¹⁰

Officials select notice in part because they fear the effect of so-called “command-and-control” regulations on innovation and compe-

sure 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.”); William M. Sage, *Regulating Through Information: Disclosure Laws and American Health Care*, 99 COLUM. L. REV. 1701, 1707–08 (1999) (“Enthusiasm for mandatory disclosure laws is reaching fever pitch. Virtually every bill under consideration by Congress to regulate managed care devotes major portions to information disclosure and dissemination.”).

4 See Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 658–64 (2011) (listing several dozen instances of mandatory disclosure, including within the contexts of criminal procedure, medicine, contract, financial transactions, and insurance); see also THALER & SUNSTEIN, *supra* note 3, at 188–93 (listing others).

5 See *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.”); *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.”). But see *Lambert v. California*, 355 U.S. 225, 229 (1957) (requiring probability of knowledge of obscure city ordinance).

6 See LON L. FULLER, *THE MORALITY OF LAW* 153 (rev. ed. 1969).

7 See FRIEDRICH A. HAYEK, *THE ROAD TO SERFDOM* 72 (1944) (“[G]overnment in all its actions is bound by rules fixed and announced beforehand—rules which 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.”).

8 See CAL. BUS. & PROF. CODE §§ 22575–22577 (West 2008).

9 Fred H. Cate, *The Failure of Fair Information Practice Principles*, in *CONSUMER PROTECTION IN THE AGE OF ‘INFORMATION ECONOMY’* 341, 341 (Jane K. Winn ed., 2006).

10 See Matthew A. 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) (discussing disclosure in another context).

tition,¹¹ a concern that appears particularly salient when it comes to digital technology.¹² Thus, for instance, a ban on storing Internet search queries in the name of privacy may interfere with the development of useful services that rely on long-term searching trends.¹³ Officials also perceive notice to be cheaper, easier to enforce, and more politically palatable than restrictions on the flow of data.¹⁴ And they recognize that consumer preferences are heterogeneous, such that setting a floor for privacy in advance may prove difficult or arbitrary.

Mandatory notice is understandably popular, but it is also controversial. Many criticize privacy notice as ineffective or worse.¹⁵ These skeptics point out that few consumers read privacy policies and fewer understand them, and hence never become informed decision makers capable of protecting themselves or policing the market.¹⁶ If anything, consumers see the legally required words “privacy policy” and believe it means that the company has a “policy of privacy” and the consumer need not concern herself.¹⁷ Some skeptics call for the

11 See Cass R. Sunstein, *Administrative Substance*, 1991 DUKE L.J. 607, 627 (critiquing the use of “rigid, highly bureaucratized ‘command-and-control’ regulation”).

12 See Kenneth A. Bamberger & Deirdre K. 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.”); Dennis D. Hirsch, *Protecting the Inner Environment: What Privacy Regulation Can Learn from Environmental Law*, 41 GA. L. REV. 1, 9, 10–11, 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); see also Ian Ayres & Matthew Funk, *Marketing Privacy*, 20 YALE J. ON REG. 77, 106 (2003) (comparing rules to a market approach in the context of telemarketing).

13 See Nicklas Lundblad & Betsy Masiello, *Opt-in Dystopias*, 7 SCRIPTED 156, 156, 161–62 (2010) (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); see also IAN AYRES & JOHN BRAITHWAITE, *RESPONSIVE REGULATION* 4 (1992) (discussing the effect regulation can have on firm innovation).

14 See *infra* notes 115–125 and accompanying text.

15 See, e.g., Cate, *supra* note 9; Aleecia M. McDonald & Lorrie Faith Cranor, *The Cost of Reading Privacy Policies*, 4 I/S J. L. & POL’Y FOR INFO. SOC’Y 543, 544, 564 (2008); Solon Barocas & Helen Nissenbaum, *On Notice: The Trouble with Notice and Consent Order 1–6* (Oct. 2009) (unpublished manuscript), available at http://www.nyu.edu/projects/nissenbaum/papers/ED_SII_On_Notice.pdf (scrutinizing the use of “notice and consent” to address privacy concerns in online behavioral advertising).

16 See *infra* notes 134–38; see also Edwards, *supra* note 10, at 204 (“Put bluntly, many critics simply do not think that disclosure works.”).

17 See CHRIS JAY HOOFNAGLE & JENNIFER KING, *RESEARCH REPORT 2* (2008), available at <http://ssrn.com/abstract=1262130> (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).

abandonment of privacy notice entirely in favor of the same substantive regulation on conduct the notice requirement sought to avoid.¹⁸

The result has been a standstill in online privacy law: regulators refuse to abandon notice as their primary regulatory mechanism despite growing evidence that existing consumer notices are ineffective.¹⁹ Identifying a new generation of notice that may not be susceptible to the withering critiques commonly levied at traditional notice could lead to an important new regulatory tool in privacy and elsewhere. To be clear, this Article does not recommend any particular solution for the issue of online privacy. Rather, it argues against an extreme skepticism of mandatory notice—a highly popular but much maligned regulatory strategy—by questioning whether critics or proponents of notice have identified and tested all of the available notice strategies.

In Part I, the Article examines the promise of radical new forms of experiential or visceral notice based in contemporary design psychology. Visceral notice differs from traditional notice in that it does not necessarily rely on describing practices in language or symbols. Rather, it leverages a consumer's very experience of a product or service to warn or inform. This Part also compares and contrasts visceral notice to other regulator strategies that seek to "nudge" or influence consumer or citizen behavior.²⁰

Part II discusses why the further exploration of visceral notice and other notice innovation is warranted. The regulatory alternatives to notice are poor. Several scholars have described the danger of substantive restrictions on conduct, particularly in a dynamic context such as the Internet—among the reasons that notice gets selected in the first place.²¹ It may be that visceral notice is not susceptible to many of the criticisms of traditional notice. Repeated experience does not necessarily wear out in the same way as repeated messages,

18 See Cate, *supra* note 9, at 343 (proposing "substantive restrictions on data processing designed to prevent specific harms"); Barocas & Nissenbaum, *supra* note 15 (manuscript at 6) (favoring "substantive direct regulation" of online ad targeting); see also Susanna Kim Ripken, *The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation*, 58 BAYLOR L. REV. 139, 147 (2006) (calling for regulators to "lay aside the gospel of disclosure in favor of more substantive laws that regulate conduct directly").

19 See, e.g., *Consumer Online Privacy: Hearing Before the Comm. on Commerce, Science & Transportation*, 111th Cong. 34 (2010) (statement of Jonathan D. Leibowitz, Chairman, FTC) (stating that "the most important thing is clear notice to consumers").

20 The word "nudge" is a reference to the title of Richard Thaler and Cass Sunstein's book defending various techniques of libertarian paternalism. See THALER & SUNSTEIN, *supra* note 3, at 4–8 (defining both nudges and libertarian paternalism).

21 See *supra* note 12.

for instance.²² If this is right, we should know about it, as it would mean that calls to abandon notice in favor of substantive regulation are premature.

Part III explores potential challenges to visceral notice—for instance, from the First Amendment—and lays out some thoughts on the best regulatory context for requiring or incentivizing visceral notice. In particular, this Part highlights the potential of safe harbors and goal-based rules, i.e., rules that look to the outcome of a notice strategy rather than dictate precisely how notice must be delivered. It also highlights the advantages of staying true to the essential premise of notice as a regulatory mechanism: conveying useful information.

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 a quintessential notice regime.²³ Second, the Internet is a context in which notice is widely understood to have failed, but where the nature of digital services means that viable regulatory alternatives are few and poor.²⁴ Finally, the fact that websites are entirely designed environments furnishes unique opportunities for the sorts of untraditional interventions explored in Part I of the Article.

Yet the insights of this Article are not limited to privacy. Similar dynamics play out in many other substantive areas.²⁵ Any lessons this Article yields might be applied much more broadly.

I. EXPERIENCE: AN EMERGING NOTICE STRATEGY

Notice is a popular regulatory strategy. In the context of online privacy, providing notice is among the only obligations companies

22 See THALER & SUNSTEIN, *supra* note 3, at 90–91 (discussing “wear out” in the context of computer software); Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 212 (2006) (describing “wear out” as the phenomenon “in which consumers learn to tune out message [sic] that are repeated too often”); see also Eric Goldman, *A Coasean Analysis of Marketing*, 2006 WIS. L. REV. 1151, 1180 (describing the escalating cycle of louder and louder disclosure).

23 See *infra* notes 26–33 and accompanying text.

24 See *infra* notes 114–25 and accompanying text.

25 See generally Geoffrey A. Manne, *The Hydraulic Theory of Disclosure Regulation and Other Costs of Disclosure*, 58 ALA. L. REV. 473 (2007) (describing securities regulation); Ripken, *supra* note 18 (describing predatory lending); Steven L. Schwarcz, *Disclosure’s Failure in the Subprime Mortgage Crisis*, 2008 UTAH. L. REV. 1109 (describing subprime lending); Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1 (describing securities regulation); Charles D. Weisselberg, *Mourning Miranda*, 96 CALIF. L. REV. 1519 (2008) (describing *Miranda* warnings); Lauren E. Willis, *Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price*, 65 MD. L. REV. 707 (2006) (describing predatory lending).

face. California law requires any company that collects personally identifiable information from California citizens—which is most Internet companies in the United States—to have a privacy policy.²⁶ 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.²⁷ 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.”²⁸

The Federal Trade Commission 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.²⁹ The FTC is guided by a set of “fair information practice principles” in applying the FTC Act to online privacy.³⁰ These principles include notice/awareness, choice/consent, access/participation, and integrity/security.³¹

In practice, the Commission privileges the principle of notice to the practical exclusion of the others. Agency materials refer to notice as “[t]he most fundamental principle.”³² 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 seldom moves forward with an enforcement proceeding unless a company has violated the notice/awareness principle, provided clearly inadequate security, or some combination thereof.³³

As the Commission has acknowledged, consumers face a number of obstacles to the gainful use of privacy policies. Most choose not to read them, for instance, and those that do find them unclear and excessively long.³⁴ Scholars in multiple disciplines have explored

26 CAL. BUS. & PROF. CODE § 22575 (West 2008).

27 *See id.*

28 *See id.*

29 Federal Trade Commission Act of 1914, 15 U.S.C. §§ 41–58 (2006 & Supp. IV 2010).

30 *Fair Information Practice Principles*, FED. TRADE COMM’N, <http://www.ftc.gov/reports/privacy3/fairinfo.shtml> (last visited Jan. 12, 2012).

31 *Id.*

32 *Id.*

33 *See* Marcia Hofmann, *Federal Trade Commission Enforcement of Privacy*, in PROSKAUER ON PRIVACY § 4:1 (Christopher Wolf ed., 2008) (reviewing FTC enforcement of online privacy through 2010); *see also* Cate, *supra* note 9, at 355–56 (“What is immediately 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.”).

34 *See* Cate, *supra* note 9, at 359; SARAH GORDON, SYMANTEC SECURITY RESPONSE, PRIVACY 12 (2003), *available at* <http://www.symantec.com/avcenter/reference/pri->

shortening privacy policies or otherwise changing their format to reduce the burden on consumers. This might involve converting “legalese” to plainer language,³⁵ “layering” notice,³⁶ placing the information in a table,³⁷ or otherwise standardizing disclosure.³⁸ Studies show only marginal improvement in consumer understanding where privacy policies get expressed as tables, icons, or labels, assuming the consumer even reads them.³⁹

This Article focuses on emerging techniques of notice that, representing something of a radical departure from traditional notice, have gone largely unexplored to date. Acknowledging the limitations of the written word, icon, or picture, this Part looks to the potential of contemporary design psychology to create a new generation of notice. The notice described below differs from privacy policies—and, indeed, traditional notice generally—in that it does not rely exclusively on language or its symbolic equivalent. Rather, it is “visceral,” in the sense of changing the consumers understanding by leveraging the very experience of a product or service.⁴⁰

The first section offers three categories of visceral notice and gives examples. The categories include using a familiarity with one technology or context to warn or inform about another; using certain common psychological reactions to design to change a consumer’s

vacy.attitudes.behaviors.pdf; Miriam J. Metzger, *Effects of Site, Vendor, and Consumer Characteristics on Web Site Trust and Disclosure*, 33 COMM. RES. 155, 159, 168–69 (2006); see also Ben-Shahar & Schneider, *supra* note 4, at 671 (readership of boilerplate language “is effectively zero”).

35 See Mike Yang, *Trimming Our Privacy Policies*, OFFICIAL GOOGLE BLOG (Sept. 3, 2010, 9:00 AM), <http://googleblog.blogspot.com/2010/09/trimming-our-privacy-policies.html> (explaining Google’s decision to redraft elements of its privacy policy).

36 See CTR. FOR INFO. POLICY LEADERSHIP, HUNTON & WILLIAMS LLP, TEN STEPS TO DEVELOP A MULTILAYERED PRIVACY NOTICE 1 (2007).

37 See generally ALAN LEVY & MANOJ HASTAK, CONSUMER COMPREHENSION OF FINANCIAL PRIVACY NOTICES (2008) (report prepared for seven federal agencies suggesting the use of tables in financial privacy disclosure).

38 Lauren Willis argues for, *inter alia*, a simplified “Loan Price Tag” in the lending context. See Willis, *supra* note 25, at 820–21. Corey Ciocchetti urges for nutrition labels filled with fair information practices. See Corey A. Ciocchetti, *The Future of Privacy Policies: A Privacy Nutrition Label Filled with Fair Information Practices*, 26 J. MARSHALL J. COMPUTER & INFO. L. 1 (2008); see also PATRICK GAGE KELLEY ET AL., CARNEGIE MELLON UNIV., STANDARDIZING PRIVACY NOTICES (2010), available at <http://repository.cmu.edu/cgi/viewcontent.cgi?article=1002&context=cylab> (conducting an online study of the nutrition label approach).

39 See generally KELLEY ET AL., *supra* note 38 (assessing the efficacy of labels); LEVY & HASTAK, *supra* note 37 (assessing the use of tables).

40 Technically “viscera” refer to the internal organs. The term is meant here metaphorically to distinguish between notice that draws from experience and notice that requires conscious processing by the brain.

mental model⁴¹ of a product or service; and “showing” consumers instead of “telling” them, i.e., demonstrating the result of company practices for the specific consumer, rather than describing the practices themselves. Notice as experience is unfamiliar territory, residing at the intersection of conscious and unconscious information processing. The second section briefly compares and contrasts visceral notice to techniques intended to convey information with symbols or influence behavior.

A. *Visceral Notice*

Language is not the only means to convey information. Nor is it always the most efficient. A simple example is pain.⁴² 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. Like language, experience has the capability of changing our mental models—that is, our understandings and assumptions about a given product, environment, or system.⁴³ You can add yet another traffic sign to say “road narrows,” or you can accentuate the roadway with rumble strips. You can post signs throughout a city reminding pedestrians that electric cars are silent, or you can require car manufacturers to introduce an engine sound.⁴⁴ 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

41 A “mental model” is the set of expectations, assumptions, and knowledge individuals bring to their experiences of technology and the world. See DONALD A. NORMAN, *THE PSYCHOLOGY OF EVERYDAY THINGS* 17 (1988); Abhay Sukumaran & Clifford 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 products are warnings. Cf. DONALD A. NORMAN, *THE DESIGN OF FUTURE THINGS* 135 (2007) (discussing “self-explaining” objects).

42 Other examples include a game one learns by playing or a language one learns by speaking.

43 See *supra* note 42 (defining “mental model”).

44 See *infra* notes 51–52 and accompanying text.

guard at the moment of collection or demonstrates to the consumer how their data is actually being used in practice.

What follows is an examination of possible ways to deliver visceral notice. The list is meant to be illustrative, not exhaustive. Presumably there are other ways to leverage a consumer's experience with a product or service to deliver a kind of actionable information—Part II explores why it might be profitable to identify and thoroughly test them.

1. Familiarity as Warning

Often, what we mean by “intuitive” is actually “familiar.” We experience a particular set of 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 on the Internet.

This familiarity breeds a kind of opportunity. Designers can and do use it to create more accurate mental models in consumers of new technology.⁴⁵ Consider three interventions based on the principle of familiarity, the latter two of which are regulatory in nature. Each intervention leverages the individual's familiarity with a previous technology to realign expectations with reality—a function often reserved for written notices, owner manuals, or other forms of communications.

The first example involves cell phones and the elderly. Older consumers did not grow up with cell phones and can have trouble using them.⁴⁶ Many 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.⁴⁷ Even if they do, it will take time and effort to get up to speed on a new technology.⁴⁸ Another alternative is to eat up the consumer and pro-

45 Cf. NORMAN, *supra* note 41, at 150 (discussing the reintroduction of “natural signals” to new contexts).

46 See Jesse James Garrett, *A Cell Phone for Baby Boomers*, BUSINESSWEEK, (May 29, 2007), http://www.businessweek.com/innovate/content/may2007/id20070529_644980.htm.

47 See Howard Latin, *“Good” Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1215–20 (1994) (describing various explanations for consumers' failure to read).

48 See *id.* at 1215–20 (discussing competing demands for attention in the context of good warning in product liability).

vider's time with phone calls to customer service. This is a costly communication with no guarantee of success.

Faced with this dilemma, the handset giant Samsung intervened through design. Samsung created the "Jitterbug," a skeumorphic cell phone that mimics traditional phones in almost every respect, down to the dial tone.⁴⁹ The dial tone, though 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 manual or conversation.⁵⁰

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 evidence that the absence of such noise leads to more pedestrian collisions.⁵¹ Rather than blanketing the sidewalks with signs warning pedestrians that some cars are now silent, these regulators investigated another expedient: requiring fake engine noises that change depending on the distance of the car as a natural warning embedded in the pedestrian's experience.⁵²

Consider another example involving digital cameras and privacy. Analog cameras make a click and, often, emit a flash when taking a

49 See Garrett, *supra* note 46.

50 See *id.* Apple also designed its popular iPad book reader to respond to the motion of flipping the page. See *iBooks: A Novel Way to Buy and Read Books*, APPLE.COM, <http://www.apple.com/ipad/built-in-apps/ibooks.html> (last visited Jan. 12, 2012). Yet another example is "Slurp," a "tangible interface for manipulating abstract information as if it were water. Taking the form of an eyedropper, Slurp can extract (slurp up) and inject (squirt out) pointers to digital objects." Jamie Zigelbaum, *Slurp*, MIT MEDIC LAB, <http://zig.media.mit.edu/Work/Slurp> (last visited Jan. 12, 2012).

51 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. U.S. DEP'T OF TRANSP., INCIDENCE OF PEDESTRIAN AND BICYCLIST CRASHES BY HYBRID ELECTRIC PASSENGER VEHICLES 5–6 (2006), available at <http://www-nrd.nhtsa.dot.gov/Pubs/811204.pdf>; see also EUROPEAN COMM'N, PROGRESS DURING 2009 AT THE UN ECONOMIC COMMISSION FOR EUROPE (UNECE) 8–9 (2010), available at http://ec.europa.eu/enterprise/sectors/automotive/files/unece/sec-2010-0631_en.pdf ("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 Comm'n, *Clean and Energy-Efficient Vehicles: European Strategy for the Uptake of Green Vehicles*, EUROPA 8 (Apr. 28, 2010), <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/153&format=HTML&aged=0&language=EN&guiLanguage=fr> (noting "potential risks due to the quietness of electric vehicles").

52 See, e.g., Pedestrian Safety Enhancement Act of 2008, H.R. 5734, 110th Cong. § 5 (2008) (proposing requirement to address the relative quiet of electric and hybrid cars).

picture. Digital cameras lack a shutter and, accordingly, are as a default silent. Many require very little light and hence do not use flash as often. Digital cameras tend to be smaller than analog cameras 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 over a hundred years ago by Samuel Warren and Louis Brandeis in *The Right to Privacy*.⁵³ 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 a 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 sound of sufficient volume to place the subject of a photo on notice that a picture was being taken.⁵⁴

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. 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.

In principle, the design of products to leverage a consumer's familiarity with a previous technology could be treated by officials and the law as fungible with more traditional warnings. The goal is basically the same: to alert one or more individuals to a specific danger within a particular context. There may be a difference in practice; it may be hard to determine whether the warnings were "good" in the

53 Samuel D. Warren & Louis D. 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 photograph[y]").

54 In the 111th Congress, a bill was proposed that would have required cell phones to make an audible shutter sound. See Camera Predator Alert Act of 2009, H.R. 414, 111th Cong. (2009). 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 collect the data." See JON HOWELL & STUART SCHECHTER, MICROSOFT RESEARCH, WHAT YOU SEE IS WHAT YOU GET 1 (2010), available at <http://research.microsoft.com/pubs/131132/devices-camera-ready.pdf>. The researchers choose "virtual blinds" because of users' familiarity with pulling down blinds for greater privacy. See *id.*

Comment j sense, for instance.⁵⁵ But the law should not necessarily see a distinction between the essential mechanisms of experience and words where the outcome—a change to the consumer’s mental model—is the same.

2. Psychological Response as Notice

In addition to bringing a set of intuitions to new technologies or contexts, people share psychological responses to certain design elements or characteristics. These common reactions have, on some accounts, a biological or evolutionary basis.⁵⁶ In any case, there is extensive evidence that test subjects react in specific, predictable ways to certain kinds of visual and audio cues irrespective of their underlying familiarity with technology.⁵⁷ Companies and regulators can leverage these techniques to advance policy goals, including better 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 predisposed to react to anthropomorphic design as though a person was really there.⁵⁸ We know intellectually that what we are seeing is not a real person, but for many purposes our brains are largely incapable of shutting off certain psychological reactions to the perceived presence of another.⁵⁹

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.⁶⁰ In another, people skipped sensitive questions on an online questionnaire and engaged in more self-promotion when the interface appeared like a

55 RESTATEMENT (SECOND) OF TORTS: PRODUCT LIABILITY § 402A (1965); *see also* Latin, *supra* note 47, *passim* (discussing how the laws should treat “good” warnings).

56 *See, e.g.*, CLIFFORD NASS & SCOTT BRAVE, WIRED FOR SPEECH 3 (2005) (“[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.”); BYRON REEVES & CLIFFORD NASS, THE MEDIA EQUATION 12 (1996) (“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”).

57 *See* REEVES & NASS, *supra* note 56, at 252 (observing no difference in the effect of anthropomorphism on trained technologists).

58 *See* NASS & BRAVE, *supra* note 56, at 4; REEVES & NASS, *supra* note 56, at 4.

59 *See* NASS & BRAVE, *supra* note 56, at 4; REEVES & NASS, *supra* note 56, at 4.

60 *See* Melissa Bateson et al., *Cues of Being Watched Enhance Cooperation in a Real-World Setting*, 2 BIOLOGY LETTERS, 412, 412 (2006).

person.⁶¹ In each case, the researchers concluded that the changes to behavior resulted from a feeling of being observed—correct or not.⁶² Research shows a similar effect where users are reminded of themselves, for instance, through presentation of their image in a mirror.⁶³

The same turns out to be true of formal, as opposed to casual, websites or other interfaces. Researchers at Carnegie Mellon experimented with how interface formality might interact with user response to an online personal survey.⁶⁴ 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.⁶⁵ The study found that subjects responded to personal questions more honestly where the interface was casual than in the control or formal condition.⁶⁶

Again, we can imagine using this knowledge of the impact of design on psychology to furnish a kind of notice. For example, one of the central problems of online privacy is that people are routinely being tracked by a variety of companies and other parties, but do not realize that they are.⁶⁷ 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.

Introducing visceral notice here might have two kinds of effects. The first is to make consumers aware of tracking by third-party adver-

61 Lee Sproull et al., *When the Interface is a Face*, 11 HUM.-COMPUTER INTERACTION 97, 112–16 (1996); see also Edwards, *supra* note 10, at 204 (“Put bluntly, many critics simply do not think that disclosure works.”).

62 See, e.g., Raoul Rickenberg & Byron Reeves, *The Effects of Animated Characters on Anxiety, Task Performance, and Evaluations of User Interfaces*, 2 CHI LETTERS 49, 55 (2000). Perhaps paradoxically, this study found that social interfaces increase user trust—often cited as a key component of e-commerce. See *id.* Thus, the subjects of a study that used animated characters to create the appearance that the individual was being monitored actually rated the website higher on trust than subjects where the character was absent. See *id.*

63 See, e.g., Charles S. Carver & Michael F. Scheier, *Self-Focusing Effects of Dispositional Self-Consciousness, Mirror Presence, and Audience Presence*, 36 J. PERSONALITY & SOC. PSYCHOL. 324, 328 (1978) (noting that in a sentence completion study, the tendency to make self-focused sentence completions was greater when a mirror was placed in front of the subjects).

64 See John et al., *supra* note 2, at 858–59.

65 See *id.* at 863.

66 See *id.*

67 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.”). See generally Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393 (2001) (discussing the dangers of tracking).

tisers. Should they experience this tracking as invasive or uncomfortable, they might stop frequenting websites where tracking is particularly heavy. Imagine, for instance, if each advertising network on the Internet had an avatar that 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 opt out 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 kind of effect is to place consumers on alert that the information they supply might be seen by others. Thus, in certain sensitive collection environments, regulators could impose a requirement that data collection forms achieve a sufficient degree of formality to place the consumer on their guard. Today, design incentives seem somehow to be the opposite. Children's websites tend to be the most casual on all the Internet,⁶⁸ for instance, despite that lawmakers are concerned enough specifically with youth privacy to pass a law requiring or encouraging enhanced notice for websites aimed at those under the age of thirteen.⁶⁹

These methods have application beyond privacy as well. Consider the context of website comment etiquette and cyberbullying. 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.⁷⁰ This perception can lead to anti-social conduct, whether or not coupled with the quasi-anonymity of a username.⁷¹ 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 of these terms.

68 They are at the same time some of the most aggressive. 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. Jeff Sovern, *Opting In, Opting Out, Or No Options At All: The Fight for Control of Personal Information*, 74 WASH. L. REV. 1033, 1041 (1999). Interestingly, one of the tactics involved the use of fictional characters to pose questions. See *id.* An additional advantage of consumer agencies' recognition of the power of design to affect disclosure is their greater potential to recognize abuses.

69 See Children's Online Privacy Protection Act of 1998, 15 U.S.C. §§ 6501–6506 (2006).

70 See Patricia Sánchez Abril, *Private Ordering: A Contractual Approach to Online Interpersonal Privacy*, 45 WAKE FOREST L. REV. 689, 699 n.74 (2010) ("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.").

71 See *id.* at 699.

Clever design leveraging psychological responses to technology could provide an interesting alternative to terms and guidelines. For instance, the experience of commenting could be made to feel more like an in-person conversation by graphically representing that a comment to a post is also a comment directed at the author. Or users that post original content could select the way it is framed on the web—more formally, for instance—in an effort to signal their target community and desired level of discussion.⁷²

Another example, beyond the digital context entirely, is the notice requirements of the Clean Water Act.⁷³ The Act requires that, for certain compounds, water companies file reports with the local authority indicating their concentration in the water.⁷⁴ But for others, such as excess levels of copper or lead, the company must post signs where consumers will see them.⁷⁵ We could imagine requiring that water utilities artificially change the color of the water to warn about the presence of metal, the way suppliers already add a smell to gas to warn of leaks.

B. “Showing”

A final technique leverages clever design not to do away with all words, but to privilege individual experience over generic text. This method involves eschewing reliance on general terms in favor of tailoring notice very specifically to the company’s engagement with the exact individual. The technique bears some affinity to the passing suggestion by Jon Hanson and Doug Kysar that populations be segmented by demographics to determine what notices they will see.⁷⁶ A closer parallel is Edward Rubin’s argument that notice fails to protect consumers because it relies on what philosophers call “theoretical”

⁷² 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 cyberbullying, where the bias is less virulent and perpetrators ostensibly less hardened.

⁷³ 33 U.S.C. §§ 1251–1387 (2006 & Supp. III 2010).

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1561–63 (1999).

knowledge, as opposed to practical knowledge delivered through interactivity with the consumer.⁷⁷

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 instances to overcome optimism bias.⁷⁸ 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 negative event will occur to them.⁷⁹ The authors conclude that regulators should consider mandating the recitation of a specific negative outcome—perhaps a story about a hypothetical woman’s hospital stay as she battles breast cancer.⁸⁰

Technology and clever design create the possibility of tailoring anecdotes to individual consumers, thereby showing them what is specifically relevant to them, instead of describing generally what might be.⁸¹ 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 routine in places and, although imperfect, suggests a way to tailor financial terms to individuals. We can imagine further inputs—for instance, what will happen to this or that borrower should he miss a payment or if interest rates change—to dramatize other terms of the deal on offer.

The online context, where there is a layer of design between the consumer and the product or service, provides vivid examples.⁸² Consider three. Mozilla, the company behind the popular Firefox Internet browser, invites users to test out new features in Mozilla Labs using Test Pilot.⁸³ 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: “We will periodically collect data

77 Edward Rubin, *The Internet, Consumer Protection and Practical Knowledge*, in CONSUMER PROTECTION IN THE AGE OF THE ‘INFORMATION ECONOMY’ 35, 40–44 (Jane K. Wynn ed., 2006).

78 See Jolls & Sunstein, *supra* note 22, at 210.

79 See *id.*

80 See *id.*

81 See Rubin, *supra* note 77, at 52.

82 See *id.* at 36 (discussing how technology presents new and better opportunities for tailoring information to individuals); cf. LAWRENCE LESSIG, CODE (2006) (discussing additional opportunities for regulation through “code” in cyberspace).

83 *Test Pilot*, MOZILLA LABS, <https://testpilot.mozillalabs.com/> (last visited Jan 12, 2012).

on the browser's basic performance for one week"⁸⁴ Prior to transmitting user information from the user's computer to Mozilla's servers, however, Mozilla also shows users a report of what information has actually been collected and asks them to review and approve it.⁸⁵ 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 basic 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.⁸⁶ In connection to ad targeting, for instance, one of two dozen product policies, Google explains:

[T]o 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.⁸⁷

In addition to this somewhat generic written disclosure, Google created ancillary tools to help its users understand what data Google has about them and how it will be used. Thus, for instance, the Google Dashboard permits consumers to see all in one place what services store any of their information.⁸⁸ Google Ads Preferences permits users to see what guesses Google has made about them in order to serve relevant ads.⁸⁹ Users may also make changes or delete the profile entirely.⁹⁰

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.⁹¹ A more recent example is Facebook's Interactive Tools, one of which permits users to see

84 *Current Test Cases*, MOZILLA LABS, <https://testpilot.mozillalabs.com/testcases/> (last visited Jan. 12, 2012).

85 *See supra* note 83.

86 *Privacy Center*, GOOGLE, <http://www.google.com/intl/en/privacy/> (last visited Jan. 12, 2012) (listing services).

87 *Privacy Center: Privacy Policy for Google Ads and the Google Display Network*, GOOGLE, <http://www.google.com/privacy/ads/privacy-policy.html> (last visited Jan. 12, 2012).

88 *See* Judy Shapiro, *Google Dashboard Changes Our Thinking About Privacy*, AD AGE DIGITAL (Nov. 10, 2009), <http://adage.com/article/digitalnext/digital-privacy-google-dashboard-thinking/140399/> (last visited Jan. 12, 2012).

89 *Ads Preferences: Frequently Asked Questions*, GOOGLE, <http://www.google.com/ads/preferences/html/faq.html> (last visited Jan. 12, 2012).

90 *See id.*

91 *See Yahoo! Privacy: Ad Interest Manager BETA*, YAHOO!, http://info.yahoo.com/privacy/us/yahoo/opt_out/targeting/ (last visited Jan. 12, 2012).

how their profile looks to those who are not signed in—that is, to cops, teachers, potential employers, and others that might check up.⁹² Another permits users to target a pretend ad so that they at least understand what information Facebook’s advertising clients see about them.⁹³ These tools, while imperfect, show users how their information is actually used, as opposed to merely telling them how it might be used.

We can imagine the use of this technique offline as well. The Health Insurance Portability and Accountability Act of 1996 (HIPAA)⁹⁴ requires lengthy notices to patients about how a pharmacy, hospital, or other health system will use their information.⁹⁵ Individuals are supposed to read these documents and sign off on them.⁹⁶ Imagine that, upon entering a hospital, a patient or her representative were handed a tablet device tracking her chart and other relevant information throughout and beyond her stay. If the patient sees something she does not understand, she can ask (or object) in real-time and will leave with a better understanding to inform her future choice of hospitals.

Executed well, showing describes what has actually occurred, thereby embedding information about the company’s practices in the consumer experience of the produce or service—similar to the way we might best learn the rules of a game by playing it.⁹⁷

C. Notice or Nudge?

Mandatory notice operates according to a specific mechanism: it furnishes consumers with information they would not otherwise have so they can protect themselves and police the market.⁹⁸ Visceral notice attempts to create the relevant state of awareness in a sense directly, without necessarily conveying information with language or symbols. In this way, visceral notice arguably shares an affinity with

92 See Mike Swift, *Facebook Rewriting Privacy Policy*, SAN JOSE MERCURY NEWS, Mar. 9, 2011.

93 See *id.*

94 See Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191, § 1173, 110 Stat. 1936, 2024–26 (codified as amended in scattered sections of 18, 26, 29, & 42 U.S.C.)

95 See 45 C.F.R. § 164.520 (2010).

96 See *id.*

97 One counterargument 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.

98 See Ben-Shahar & Schneider, *supra* note 4, at 103.

projects aimed either at conveying information without words, or at influencing consumers at an unconscious level.

Visceral notice operates, in other words, in a gray area between symbolic representation and cognitive reflex. Its outer boundaries touch upon each. Thus, for instance, some forms of visceral notice feel close to visual semiotics—very roughly, the relationship between signs and meaning within the context of art, advertising, and other visual media.⁹⁹ Visual semiotics, however, is ultimately an exercise in unpacking messages as conveyed by visible symbols. The content can be expressed either as an arrangement of shapes, colors, etc. or as an affirmative statement.¹⁰⁰ A waiter can identify himself as a waiter with words, or simply stand alongside one's table holding a pencil to an order pad. The use of formality, in contrast, does not necessarily embed a specific claim about the world, but rather produces a desired state—for instance, of alert—that an individual may or may not achieve upon being informed of the relevant facts.

For precisely this reason, we might wonder whether changing consumer mental states through familiarity, formality, or some of the other tactics described actually involves information in any meaningful sense at all. The supporting studies within design psychology mentioned in the previous section are commonly organized to measure subject behavior. Thus, a study will measure *the act* of charitable giving,¹⁰¹ another *the act* of paying for coffee.¹⁰² Similarly, several studies measure *the act* of disclosure, noting that less—or less revealing—disclosure occurs in the presence of anthropomorphism or formality.¹⁰³

As such, one's instinct might be to place the studies and their regulatory insights not in the context of notice, with its emphasis on knowledge and consent, but in that of soft paternalism. Championed by economist Richard Thaler and others, soft paternalism looks primarily to behavioral economics for ways to “nudge” consumer or citizen behavior in directions thought to be desirable by the official, including by providing visual or audio “feedback.”¹⁰⁴ The method is “libertarian” in the sense that individuals technically have the power

99 See GUNTHER KRESS & THEO VAN LEEUWEN, *READING IMAGES 1* (1996). Derek Kiernan-Johnson made this point.

100 See *id.* at 1–2.

101 See Vanessa Woods, *Pay Up, You Are Being Watched*, *NEWSCIENTIST*, Mar. 18, 2005, at 12 (reporting on study tending to show an increase of charitable giving in the presence of a robot picture).

102 See Bateson et al., *supra* note 60, at 412.

103 See John et al., *supra* note 2, at 858–59; Sproull et al., *supra* note 61, at 97–100.

104 See THALER & SUNSTEIN, *supra* note 3, at 92–93.

to do something else but “paternalistic” in the sense that it seeks to channel a particular outcome.¹⁰⁵

In contrast, the law and scholarship around notice tracks not the consumer’s particular behavior, but rather the consumer’s understanding of the dangers and options. Officials and courts purport to take the existence or absence of notice as evidence of what a consumer knew about the product or service. The goal of visceral privacy notice, then, should be to create awareness of data collection and other relevant issues and realities, rather than to stop consumers from disclosing per se. In other words, the goal of notice is not to manipulate preferences but to give consumers the information they need to act upon preferences.¹⁰⁶

In theory, visceral notice should be capable of affecting knowledge in this way. Clever design can indeed leverage psychological predispositions to change an individual’s mental model, or 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.¹⁰⁷ Subjects had expectations about how a more formal website should be used that they were able to articulate to the researchers.¹⁰⁸ Preliminary results of another recent study conducted by the author and a human-computer interaction expert suggest that people not only disclose more on casual websites than formal ones, they believe that less information is being collected and retained in the casual condition.¹⁰⁹

More study is clearly needed—a case the next Part makes in detail. Perhaps the relationship between knowledge of data collection and disclosure behavior is merely correlative, for instance, and not causal. But rather than aim exclusively at influencing behavior, at

105 See *id.* at 4.

106 This Article assumes for purposes of discussing the promise of notice as a regulatory mechanism that consumers come to the web with preexisting privacy preferences. It may prove impossible entirely to disentangle consumer preferences from context.

107 See Abhay Sukumaran & Clifford Nass, *Socially Cued Mental Models*, CHI 2010, at 3379, 3380, 3384 (2010), available at http://delivery.acm.org/10.1145/1760000/1753988/p3379-sukumaran.pdf?ip=129.74.89.63&acc=ACTIVE%20SERVICE&CFID=62215519&CFTOKEN=35129007&__acm__=1326674814_7ef9f20daa483eb350d837ecca72fc43.

108 See *id.*

109 Victoria Groom & M. Ryan Calo, *Reversing the Privacy Paradox: An Experimental Study* 28 (Stanford Law Sch. Ctr. for Internet & Soc’y, Working Paper, 2011 (on file with author) (experimental study on the efficacy of various techniques of nonlinguistic notice on consumer privacy expectations)).

least some interventions that leverage our psychological response to design appear to be taking an explanatory short cut. Consumers hopefully end up in a place similar to where they would have been had they read a warning or policy. They then take the action most appropriate to that understanding. If so, it follows that these and other hardwired responses to design could be pressed into the service of a new form of notice that differs from attempts solely to move behavior.

II. WHY EXPLORE VISCERAL NOTICE

Part I canvasses mechanisms for delivering notice that rely on consumer experience rather than entirely on words or symbols. This Part discusses why further exploration of the concept of experience as notice is worthwhile. It begins by briefly discussing why notice is so often selected by regulators in the first place. To paraphrase Winston Churchill on democracy, notice is the worst regulatory mechanism, except for all of the alternatives.¹¹⁰ Most substitutes for notice are perceived to be invasive, ineffective, expensive, or arbitrary. Getting notice right may be a last best chance in at least this regulatory context.

Experience as notice is exciting in that it may not be susceptible to the common criticisms levied at traditional notice. In the many criticisms of notice within and beyond privacy, the same critiques tend to recur. There are practical reasons why people never see privacy policies or receive other notices. There are differences in our ability to process information. And we share certain cognitive limitations that get in the way of digesting or acting upon warnings, terms, and other notices. There is reason to believe that these criticisms will not apply with equal force to experience, undercutting the case against a uniquely popular regulatory mechanism.

A. *Why Notice?*

There is no shortage of literature cataloguing the erosion of personal privacy due to the Internet and other contemporary technology.¹¹¹ Yet Internet privacy has proven a difficult area to regulate. Consumers benefit from the nonexistent or low price point of many

110 Churchill supposedly made this remark in 1947 in the House of Commons. See 444 PARL. DEB., H.C. (5th ser.) (1947) 206–07.

111 See, e.g., DANIEL J. SOLOVE, *THE DIGITAL PERSON* (2004) (aiming to rethink longstanding notions of privacy to grapple with living in the new Information Age); A. Michael Froomkin, *The Death of Privacy?*, 52 STAN. L. REV. 1461, 1468 (2000) (discussing privacy-destroying technologies); Ruth Gavison, *Privacy and the Limits of Law*, 89

Internet services and from the greater personalization and variety of online services, all of which depend on data.¹¹² 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.¹¹³ Yet alternative methods of protecting consumers have not been seen as effective. Attempts to harness private certification of privacy and safety, for instance, have faced clear limitations.¹¹⁴

Notice appears to have certain advantages over other regulatory mechanisms. Regulators, who face limited resources and enforcement bandwidth, perceive notice as relatively cheap to implement and easy to enforce.¹¹⁵ Internet business models can be as odd and as varied as airport vehicles. Rather than spend the resources to discover and assess each model, 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.

Regulators worry about the effects of overregulation on legitimate business interests. Notice seeks to preserve the conditions for innovation and competition, which an excess of rigid restrictions is

YALE L.J. 421, 465 (1980) (attempting to vindicate the way most people think about privacy issues in the new era).

112 See INTERNET POLICY TAX FORCE, U.S. DEP'T OF COMMERCE, COMMERCIAL DATA PRIVACY AND INNOVATION IN THE INTERNET ECONOMY 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.").

113 See Bamberger & Mulligan, *supra* note 12, at 303 ("The shortcomings of command-and-control governance . . . are well recognized."); Hirsch, *supra* note 12, at 9, 10–11, 33–37 (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).

114 One possibility is for third-parties to certify the adequacy of a company's overall privacy practices in exchange for compensation. A recent study of a leading seal provider, however, found that the presence of the seal made certain privacy-invasive practices *more* likely. See Benjamin Edelman, *Adverse Selection in Online "Trust" Certifications and Search Results*, 10 ELECTRONIC COM. RES. & APPLICATIONS 17, 17–25 (2011). The FTC also brought an action against a privacy and security seal provider for fraud. See FTC v. ControlScan, Inc., No. 1:10-cv-00532-JEC (N.D. Ga. 2009), available at <http://www.ftc.gov/os/caselist/0723165/100225controlscanstip.pdf> (stipulating final judgment and ordering a permanent injunction and other equitable relief). This is not to say that there is no role for third-party certification, only that it is not a stand alone panacea.

115 See Ben-Shahar & Schneider, *supra* note 4, at 682 (observing that notice is attractive because it "looks cheap" and "looks easy"). But see *id.* at 735–37 (identifying hidden costs of notice).

thought to compromise.¹¹⁶ This concern appears particularly salient when it comes to digital technology.¹¹⁷ The Internet industry can credibly claim that substantive restrictions may impede innovation, leading to fewer useful services, or else privilege one technology over another.¹¹⁸ Thus, for instance, a flat ban on storing Internet search queries may interfere with the development of socially beneficial technologies such as Google Flu Trends that rely on long-term searching patterns.¹¹⁹ (Of course, the absence of regulation also has the potential to impede innovation or privilege one technology over another.¹²⁰)

Regulators also worry about setting an arbitrary ceiling or floor for privacy.¹²¹ People indeed have different subjective preferences with respect to privacy and, the view is, those who value privacy little should be able to exchange their personal information for things upon which they place a greater value.¹²² Notice purports to respect the basic autonomy of the consumer or citizen by arming her with information and placing the ultimate decision in her hands.¹²³ The hope is that informed consumers create a market that rewards companies for good privacy practices and penalizes them for bad ones.

116 See Bamberger & Mulligan, *supra* note 12, at 303 (“The shortcomings of command-and-control governance . . . are well recognized.”); Sunstein, *supra* note 11, at 627 (critiquing the use of “rigid, highly bureaucratized ‘command-and-control’ regulation”).

117 See Hirsch, *supra* note 12, at 10–11 (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).

118 See AYERS & BRAITHWAITE, *supra* note 13, at 4.

119 Cf. Lundblad & Masiello, *supra* note 13, at 156, 161–62 (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). Google Flu Trends was reportedly used by the Center for Disease Control to allocate resources during the flu season.

120 See generally BARBARA VAN SCHEWICK, *INTERNET ARCHITECTURE AND INNOVATION* (2010) (arguing, inter alia, that regulation is sometimes necessary to prevent Internet service providers and other, dominant platforms from exerting an unhealthy control over the network).

121 See *supra* note 12 (discussing concerns with substantive restrictions in digital technology).

122 See James P. Nehf, *Shopping for Privacy Online: Consumer Decision Making Strategies and the Emerging Market for Information Privacy*, 2005 U. ILL. J.L. TECH. & POL’Y 1, 14–17.

123 See Dalley, *supra* note 3, at 1093 (“[D]isclosure schemes comport with the prevailing political philosophy in that disclosure preserves individual choice while avoiding direct governmental interference.”); Sage, *supra* note 3, at 1705 (noting the “growing commitment to patient autonomy and self-determination” in bioethics as paving the way to mandated disclosure in healthcare).

Finally, there is the political reality that notice may be more palatable to regulated industry.¹²⁴ Mandated notice can and does face opposition, but opposition tends to be less fierce than to top-down dictates regarding what a company can and cannot do. Regulators, eager to do something to help consumers, but lacking the political capital or will to limit or curtail the activities of a given industry, may opt for notice as a means at least to improve the context of online privacy for some consumers.¹²⁵

Notice promises to represent, in these respects and others, a relatively attractive option in the context of online privacy. This basic analysis is not limited to privacy or even the Internet. Scholars discussing a wide variety of contexts highlight similar reasons that notice is so singularly popular. And, as alluded to above, it is quite popular. In their recent article *The Failure of Mandatory Disclosure*, Omri Ben-Shahar and Carl Schneider canvas several dozen instances of mandatory disclosure, including ones within contexts as diverse as criminal procedure, medicine, contract, financial transactions, and insurance.¹²⁶

B. *The Case Against Notice*

That regulators select notice so regularly is understandable. But the case against notice is a strong one. There is a great deal of evidence that few consumers read privacy policies or similar documents, for instance, and that even fewer understand them. Privacy notice as deployed in practice likely does not accomplish its avowed goal of enhancing consumer autonomy or policing the market.¹²⁷

124 See Ben-Shahar & Schneider, *supra* note 4, at 684 (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, 1096–1102 (1984)).

125 More cynically, we might say that lawmakers would like to appear to have done something. See *id.* at 684 (“In short, when lawmakers are besieged, mandated disclosure looks like rescue. . . . Lawmakers can be seen to have acted. . . . Easy alternatives are few. Disclosure’s political utility does much to explain its incessant use and its irrepressible expansion.”).

126 See *id.* at 658–64 (listing several dozen instances of mandatory disclosure, including within the contexts of criminal procedure, medicine, contract, financial transactions, and insurance); see also THALER & SUNSTEIN, *supra* note 3, at 188–93 (listing others).

127 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. See HOOFNAGLE & KING, *supra* note 17, at 2 (noting that a majority of Californian adults believe that the mere

Again, the proceeding story is in no way limited to online privacy. You see many 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.¹²⁸ Notice can appear to be, in more vivid words, a “Lorelei, luring lawmakers onto the rocks of regulatory failure.”¹²⁹

1. Practical Hurdles

The best starting point in the case against privacy notices is likely the obstacles privacy policies 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.”¹³⁰ Today’s notices are, if not posted in a corner, not always accessed in practice. Courts have upheld the use of email for service of process,¹³¹ notwithstanding the danger posed by spam filters¹³² and the general, “best efforts” architecture of Internet protocol. A 1978 federal bankruptcy law still requires that notice of municipal bankruptcy be “published at least once a week for three successive weeks in at least one newspaper of general circulation” despite the proliferation of digital information sources.¹³³

The situation is similar with respect to privacy notices: many consumers will throw out mandatory privacy notices they receive in the mail without reading them.¹³⁴ Online, there is extensive evidence that few read privacy policies, terms of service, or other documents, whether or not they are forced to “click through” them on the way to

existence of a privacy policy translates into specific limitations on what a company may collect or disclose). Privacy policies tend to do the opposite: they are written by lawyers to be as permissive as possible.

128 See *supra* note 25 (collecting papers that criticize notice in a variety of contexts).

129 Ben-Shahar & Schneider, *supra* note 4, at 681.

130 *Screws v. United States*, 325 U.S. 91, 96 (1945) (quoting SUETONIUS, THE TWELVE CAESARS 198 (Alexander Thomson trans., Digireads.com 2007) (121)). I have Samuel Bray to thank for reminding me of this example.

131 See, e.g., *Rio Props., Inc. v. Rio Int’l Interlink*, 284 F.3d 1007, 1017 (9th Cir. 2002).

132 See, e.g., *Pace vs. Am. Int’l Grp.*, No. 08 C 945, 2010 WL 4530357, at *2 (N.D. Ill. Nov. 1, 2010) (spam filter allegedly filtered out notification of the right and timing of an appeal).

133 See 11 U.S.C. § 923 (2006).

134 See Cate, *supra* note 9, at 359 (“[N]otices may never be received. In fact, most requests for consumer consent never reach the eyes or ears of their intended recipient.”); *id.* at 359–60 (citing reports).

content or services.¹³⁵ In one dramatic example, a 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.¹³⁶ Reportedly twelve percent of people opted out—an abnormally high number attributable to the coverage of the stunt among technology blogs.¹³⁷ Even the sitting Chief Justice of the Supreme Court admitted that he does not read terms of service.¹³⁸

That people might not take the time to read notices makes sense. 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.¹³⁹ It is rational, in the sense of welfare maximizing, for individuals to ignore many notices. And it is probably desirable from the viewpoint of society. Researchers at Carnegie Mellon once calculated that it would cost \$781 billion in worker productivity if everyone were to read all of the privacy policies they encountered online in one year.¹⁴⁰

2. Limits on Understanding

Even 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”¹⁴¹ and what contemporary behavioral economics refers to as “cognitive limitations” or “biases.”¹⁴²

135 See GORDON, *supra* note 34, at 12 (only three in sixty-three people in a study reported reading a privacy policy); Ben-Shahar & Schneider, *supra* note 4, at 671 (readership of boilerplate language “is effectively zero”); Cate, *supra* note 9, at 359; Miriam J. Metzger, *Effects of Site, Vendor, and Consumer Characteristics on Web Site Trust and Disclosure*, 33 COMM. RES. 155, 159, 168–69 (2006).

136 See *7,500 Online Shoppers Unknowingly Sold Their Souls*, FOXNEWS.COM (Apr. 15, 2010), <http://www.foxnews.com/scitech/2010/04/15/online-shoppers-unknowingly-sold-souls/>.

137 See *id.*

138 See Andrew Malcolm, *Top of the Ticket: Chief Justice Roberts on Tiny Type*, LOS ANGELES TIMES (Oct. 20, 2010, 3:24 PM), <http://latimesblogs.latimes.com/washington/2010/10/chief-justice-john-roberts-state-of-the-union.html>.

139 See Latin, *supra* note 47, at 1215–20.

140 See McDonald & Cranor, *supra* note 15, at 544, 564.

141 HERBERT A. SIMON, *MODELS OF MAN* 196 (1957).

142 See, e.g., Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 635 (1999) (arguing that cogni-

a. Varying Capacities

People vary in their ability to process information.¹⁴³ 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” literacy.¹⁴⁴ Privacy policies, for instance, tend to be written at a college level; the average reading level of an American is somewhere between the eighth and ninth grade.¹⁴⁵ The gap can both dissuade some populations from reading notices and limit their ability to comprehend any they do read.

Similarly, American privacy policies are written in English, which is not everyone’s first language. Translations are not always available and, even where they are, the sense of the content can get lost.¹⁴⁶ In the context of criminal procedure, studies have shown that translated *Miranda* warnings often have a substantively different meaning than the original.¹⁴⁷ 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.¹⁴⁸

tive biases make individual decision makers susceptible to manipulation by those able to influence the context in which decisions are made); Jolls & Sunstein, *supra* note 22, at 204 (noting that availability heuristics can produce important biases); W. Kip Viscusi, *Individual Rationality, Hazard Warnings, and the Foundations of Tort Law*, 48 RUTGERS L. REV. 625, 630 (1996) (noting that in the extreme view, human cognitive limitations might be so great that it is irrational to rely on hazard warnings at all).

143 See Sage, *supra* note 3, at 1728 (“Individuals vary widely in their knowledge and experience, as well as in their capacity to understand disclosed information.”).

144 See *id.* (“This problem is particularly acute in the case of vulnerable subpopulations.”); Latin, *supra* note 47, at 1208 (discussing functional illiteracy and “[p]redictably [i]nnattentive or [i]ncompetent [u]ser [g]roups”). According to the most recent National Assessment of Adult Literacy, fourteen percent of American adults operate at “below basic” literacy. *National Assessment of Adult Literacy: Demographics*, NAT’L CTR. FOR EDUC., http://nces.ed.gov/naal/kf_demographics.asp (last visited Jan. 12, 2012).

145 See KELLEY ET AL., *supra* note 38, at 1 (“Most [privacy] policies are written at a level that is suitable for consumers with a college-level education.”); Mark A. Graber et al., *Reading Level of Privacy Policies on Internet Health Web Sites*, 51 J. FAM. PRACT. 642, 642 (2002) (concluding that the average privacy policy for Internet health websites required two years of college education).

146 See *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”).

147 See Weisselberg, *supra* note 25, at 1573.

148 See Willis, *supra* note 25, at 794–95. The lulling effect refers to the belief that rights exist merely because of the appearance of legalistic language. See *id.*

b. 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.¹⁴⁹ 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.¹⁵⁰ Critics routinely, and understandably, refer to cognitive limitations and biases in explaining their skepticism toward notice.¹⁵¹

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.¹⁵² Obviously, this interferes with the basic mechanism behind traditional notice. 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.¹⁵³

Privacy policies are not exactly 10-Ks. But these are long documents—Facebook’s privacy policy reportedly contains more words (5,830) than the entire United States Constitution.¹⁵⁴ Consumers have a tendency to skip or skim these documents and are not generally capable of processing all the information they contain.

149 See Hanson & Kysar, *supra* note 76, at 1423–25; Jolls & Sunstein, *supra* note 22, at 199–200.

150 See, e.g., DAN ARIELY, *PREDICTABLY IRRATIONAL* (rev. ed. 2009) (assembling studies).

151 See *supra* note 25 (compiling examples).

152 See Ben-Shahar & Schneider, *supra* note 4, at 27–28 (describing the “overload effect”); Dalley, *supra* note 3, at 1115–17 (discussing “information overload”); Latin, *supra* note 47, at 1211–15, 1293 (discussing “information overload” and describing “excessive disclosure”).

153 See Ripken, *supra* note 18, at 160–61.

154 See Bianca Bosker, *Facebook Privacy Policy Explained: It's Longer than the Constitution*, HUFFINGTON POST (May 25, 2011, 5:30 PM), http://www.huffingtonpost.com/2010/05/12/facebook-privacy-policy-s_n_574389.html.

That our capacity to process information is limited underpins much skepticism about notice. Information overload is just one example drawn from behavioral economics. Others include anchoring,¹⁵⁵ availability and other heuristics,¹⁵⁶ susceptibility to framing,¹⁵⁷ and the influence of self-esteem.¹⁵⁸ Our divergence from rational decision making based on cognitive limitations or biases has been repeatedly summarized elsewhere, including in the context of privacy.¹⁵⁹

C. *As Applied to Visceral Notice*

The apparent failure of notice in privacy and elsewhere to accomplish the goal of protecting the consumer and policing the market has led to 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 companies face.¹⁶⁰ 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.

Upon making this showing, critics of notice tend to take one of three directions. Some rest their case there.¹⁶¹ Others suggest shortening notice or otherwise varying its format to reduce the burden on

155 See Ripken, *supra* note 18, 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. See *id.*; see also Willis, *supra* note 25, at 767 (“[T]oo much information can lead a consumer to conserve effort by examining only a few aspects of a decision . . .”).

156 See Latin, *supra* note 47, at 1233–34; Willis, *supra* note 25, at 769.

157 See Willis, *supra* note 25, at 780, 785–87.

158 See *id.* at 755 (citing, *inter alia*, George Loewenstein, *Out of Control: Visceral Influences on Behavior*, 65 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 272 (1996)).

159 See generally ARIELY, *supra* note 150 (explaining the when, why, and effects of irrational human behavior); THALER & SUNSTEIN, *supra* note 3 (explaining availability, optimism and overconfidence, and framing); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998) (drawing attention to “cognitive and motivational problems” of individuals operating under specific laws due to bounded rationality); Jolls & Sunstein, *supra* note 22 (examining the approach of “insulating” outcomes from irrationality); Nehf, *supra* note 122 (exploring rational behavior in the context of online privacy legislation and market forces).

160 See *supra* note 25 (assembling examples).

161 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 of scope. See Ben-Shahar & Schneider, *supra* note 4, at 651 (“Our task is *not* to propose an alternative.”). In their conclusion, Schneider and Ben-Shahar point toward the promise of “advice.” See *id.* at 746–47. It is possible that they will expand upon this solution in their forthcoming book adapted from the article.

consumers. In privacy, this might involve converting “legalese” to plainer language,¹⁶² “layering” notice,¹⁶³ placing the information in a table,¹⁶⁴ or otherwise standardizing disclosure.¹⁶⁵ Yet studies show only marginal improvement in consumer understanding where privacy policies get expressed as tables, icons, or labels.¹⁶⁶ Notice is, in this sense, hydraulic: it is very difficult to convey complex content in a clear and concise format.¹⁶⁷ Earlier advertising research shows in that context that the addition of more information will crowd out other, relevant information.¹⁶⁸ More fundamentally: it does not matter how short or comprehensible a notice is if consumers never bother to read it.¹⁶⁹

A number of scholars and other commentators shun 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.”¹⁷⁰ 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.¹⁷¹ Outside of privacy, Ripken calls for regulators to “lay aside

See OMRI BEN-SHAHAR & CARL SCHNEIDER, *MORE THAN YOU WANTED TO KNOW* (forthcoming 2012).

162 See Yang, *supra* note 35.

163 See CTR. FOR INFO. POLICY LEADERSHIP, *supra* note 36.

164 See LEVY & HASTAK, *supra* note 37, at 2 (report prepared for seven federal agencies suggesting the use of tables in financial privacy disclosure).

165 Lauren Willis argues for, inter alia, a simplified “Loan Price Tag” in the lending context. Willis, *supra* note 25, at 820–21. Corey Ciocchetti urges for nutrition labels filled with fair information practices. See Ciocchetti, *supra* note 38, at 45.

166 See generally KELLEY ET AL., *supra* note 38 (assessing the efficacy of labels); LEVY & HASTAK, *supra* note 37 (assessing the use of tables).

167 See Ben-Shahar & Schneider, *supra* note 4, at 688 (“There is rarely a good solution in principle: incomplete disclosure leaves people ignorant, but complete disclosure creates crushing overload problems.”); Latin, *supra* note 47, at 1221–23 (“Other research findings indicate that . . . exhaustive disclosure is incompatible with clear and vivid message formats.”).

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

169 The author once conducted a study with a colleague in human-computer interaction that sought to compare the efficacy of short and long form privacy policies as they are displayed on websites in practice. We were unable to do the comparison because no one clicked on the privacy policy in either condition.

170 Cate, *supra* note 9, at 343.

171 See Barocas & Nissenbaum, *supra* note 15 (manuscript at 6).

the gospel of disclosure in favor of more substantive laws that regulate conduct directly,"¹⁷² and so on.

Regulators are caught on the horns of a dilemma: do they chose notice, with all of its apparent flaws, or do they instead select an alternative they perceive as inefficient or that threatens to compromise some other value such as innovation, competition, or consumer autonomy? The result can be a long holding pattern with regulators continuing to rely on notice, even as criticisms of notice mount. Online privacy, where consumer protection laws have hardly evolved in two decades, seems to be a case in point.

It thus seems fair—important, even—to investigate whether the deepest skeptics of notice really have made their case. Part I of this Article argues that experience itself can constitute a radical new form of notice. Critics of notice have not shown that this new generation of disclosure is susceptible to the same withering critiques of privacy policies and other text-based notices. They have by and large not recognized it as a phenomenon. If critics cannot make this showing, then calls to abandon notice may turn out to be premature.

Indeed, there is reason to question whether visceral notice, not being based on language or its symbolic equivalent, will always fail along the same lines as traditional notice. Repeated experience does not necessarily wear out in the same way as repeated messages, for example.¹⁷³ Thus, while people would come to tune out messages posted throughout a city warning that electric cars are silent, presumably they will not stop avoiding cars just because all of them have engine noises. Nor does the impact of visceral cues necessarily wear off over time: the study of the effect of eyes on paying for coffee on the honor system, for instance, was the same at week nine as week two.¹⁷⁴

Or take the observation that consumers generally will not leave the fun and functionality of a website in order to read a privacy policy.¹⁷⁵ Privacy notice that is built into the consumer's very experience of a website—for instance, through a requirement or request that the part of the website where information is collected be more formal—does not necessarily require consumers to click on anything. The

172 Ripken, *supra* note 18, at 147; *see also* Edwards, *supra* note 10, at 204 ("Put bluntly, many critics simply do not think that disclosure works.").

173 *See* THALER & SUNSTEIN, *supra* note 3, at 90–91 (discussing "wear out" in the context of computer software); Jolls & Sunstein, *supra* note 22, at 212 (describing "wear out" as the phenomenon "in which consumers learn to tune out message [sic] that are repeated too often");

174 *See* Bateson et al., *supra* note 60, at 412–13.

175 *See supra* notes 133–137 and accompanying text.

effect of familiarity, formality, or anthropomorphism can be instantaneous, and hence the notice it might support does not necessarily cost billions in worker productivity, as reading privacy policies reportedly would.¹⁷⁶ Moreover, personalizing disclosure may make notice more efficient and increase consumer incentives to visit the places where companies make privacy disclosures.¹⁷⁷

Yet another critique involves variability in reading comprehension or general facility with the English language. Although sensory experiences vary,¹⁷⁸ there is no reason to believe that visceral notice will leave out any specific population due to demographics or language comprehension in the way that a *Miranda* warning might.¹⁷⁹ We see some evidence of this in, for instance, the data suggesting that the effect of design does not necessarily vary by sophistication of the test subject. Studies have shown that the pro-social effect of robots is the same for subjects who, prior to the experiment, had never seen a robot before as for those who build similar robots.¹⁸⁰

This is not to claim that visceral notice will *necessarily* improve upon ordinary notice, or that it is immune to notice's common criticisms. It may be that, after a certain amount of time, people will in fact begin to tune out even anthropomorphic cues—especially as they are deployed in more and more contexts. New parents may react differently to a crying baby over time. It could be that certain populations are not familiar with otherwise common technologies or do not react the same way to a design element like formality. (Written notice is hardly immune from the criticism of ambiguity and differential impact.¹⁸¹) Or it could turn out that even the technique “showing,” i.e., notice tailored to individual experience, cannot sustain consumer attention long enough to convey meaningful information. These are just a few of many possibilities.

176 See McDonald & Cranor, *supra* note 15, at 544.

177 Other innovations may also increase consumer exposure to privacy information. The online gaming company Zynga recently converted its privacy policy into a privacy game called “PrivacyVille.” See *PrivacyVille*, ZYNGA, <http://company.zynga.com/about/privacy-center/privacyville> (last visited Jan. 12, 2012). Consumers who complete the game receive credits they may use in Zynga's other, popular games. See *id.*

178 See ROBERTA LARSON DUYFF, AMERICAN DIETETIC ASSOCIATION COMPLETE FOOD AND NUTRITION GUIDE 308 (3d ed. 2006) (“Even in the same family, people experience tastes differently. The intensity of taste depends partly on how many fungiform papillae . . . a person has on his or her tongue.”).

179 See Weisselberg, *supra* note 25, at 1521–25.

180 See REEVES & NASS, *supra* note 56.

181 See Melvin Aron Eisenberg, *Text Anxiety*, 59 S. CAL. L. REV. 305, 309 (1986).

More research is clearly needed to assess the promise and limits of visceral notice as a regulatory strategy. The research may be hard: given the nature of the work upon which visceral notice relies, exploring the promise of experiential notice will require interdisciplinary collaboration and long-term trials. As the next Part discusses, improperly deployed visceral notice mandates could also backfire or run afoul of the First Amendment.¹⁸² The central claim of this Article is that such exploration is nevertheless worthwhile. Notice happens (a lot), and it happens for a set of plausible reasons. As such, the literature around notice should countenance each viable strategy.

III. REGULATORY CONTEXT/OBJECTIONS

Part I of this Article describes the emerging technique of visceral notice; Part II makes the case that visceral notice is worthy of further study. In recognition of the importance of form and format, some regulations already require that notices be placed in a prominent location or use a particular visible font.¹⁸³ Such regulations could eventually be extended to require or encourage more visceral design elements. This Part addresses the regulatory challenges that visceral notice could face were it deployed in practice. It proceeds by recognizing several potential concerns and discussing possible mitigation strategies.

A. Notice's Other Functions

This Article has focused on an important, but in a sense narrow facet of mandatory disclosure. Specifically, it has examined the classic requirement to supply information to consumers that will help them protect themselves, realize their preferences, and police the market.¹⁸⁴ But individual consumers or citizens are not the only ones who read notices; the audience for notice can encompass more sophisticated stakeholders such as officials, activists, or the press. Even where the purported audience of notice is the consumer, requiring textual disclosure on the part of companies can have other, salutary effects not necessarily related to consumer understanding.

One possible concern around more visceral notice is that focusing on the consumer experience of a product or service will undermine the ancillary benefits of textual disclosure. Consider two examples, one from the context of privacy and one beyond it.

182 See *infra* Part III.

183 See Craswell, *supra* note 168, at 582.

184 See Ben-Shahar & Schneider, *supra* note 4, at 1 (describing the mechanism behind mandatory disclosure); Nehf, *supra* note 122, at 14.

Federal law requires that privacy terms accompany certain financial services or relationships. Under the Gramm-Leach-Bliley Act of 1999 (GLB),¹⁸⁵ a regulated entity must disclose, among other information, the categories of information it collects in connection to a financial service and what it discloses to third parties.¹⁸⁶ The GLB has faced intensive criticism.¹⁸⁷ The law requires disclosure on an initial and annual basis at an estimated cost of hundreds of millions of dollars, for instance—costs presumably passed along to the consumer who likely never saw the disclosures.¹⁸⁸ But as Peter Swire argues, notice requirements such as those present in the GLB “work[] surprisingly well as privacy legislation.”¹⁸⁹

They work well, on his view, not because consumers will actually read and act on them. Rather, they improve privacy because of the behavior the requirement to disclose tends to trigger. It turns out that the requirement to describe practices may have led many 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 notices 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 and with third parties.¹⁹⁰

The “process of self-examination” led to a “detailed roadmap for privacy compliance” and, ultimately, a salutary “institutionalization of privacy” complete with a class of privacy professionals.¹⁹¹ A similar phenomenon may be at work in the case of Proposition 65. This California law 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

185 Gramm-Leach-Bliley Act of 1999 (Financial Services Modernization Act of 1999), Pub. L. No. 106-102, 113 Stat. 1338 (codified as amended in scattered sections of 12, 15 U.S.C.).

186 See 15 U.S.C. §§ 6801–6809 (2006 & Supp. IV 2010).

187 See Peter P. Swire, *The Surprising Virtues of the New Financial Privacy Law*, 86 MINN. L. REV. 1263, 1314 (2002) (“Consumer groups, privacy advocates, and members of Congress have also harshly criticized the GLB notices.”).

188 See *id.* at 1313–14.

189 See *id.* at 1263.

190 *Id.* at 1316.

191 *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 & Mulligan, *supra* note 12, at 294.

birth defects or cancer.¹⁹² Presumably the legislature was interested in all of the typical benefits of notice over substantive regulation related to cost and autonomy.¹⁹³

The decision to warn consumers here is, again, easy to criticize. People who come across these notices have no way to put the information into practice.¹⁹⁴ As such, individuals experience a “cascade of fears” with no apparent recourse.¹⁹⁵ But the law also led manufacturers and premises owners to take stock of whether they were using the Proposition 65 chemicals in the first instance.¹⁹⁶ Some realized that they were and, further, that doing so was not necessary, leading them to abandon the chemical in favor of a presumably less toxic one.¹⁹⁷

In addition to its internal influences on a firm, the requirement to disclose can help motivated outsiders assess and criticize company practice. There are many examples of the FTC bringing enforcement proceedings and using the company’s privacy notices as evidence that the company violated user expectations—indeed, the bulk of the agency’s enforcement activity follows this route.¹⁹⁸ Moreover, non-profit groups and researchers monitor privacy policies to assess how corporate claims change or line up with known data practices.¹⁹⁹ The press has also begun to refer to privacy policies in reporting on online privacy issues.²⁰⁰

192 Safe Drinking Water and Toxic Enforcement Act of 1986, CAL. HEALTH & SAFETY CODE § 25249.6 (West 2006).

193 See *supra* notes 115–26 and accompanying text (discussing why notice is popular).

194 Cf. THALER & SUNSTEIN, *supra* note 3, at 90–91 (making this point about the Homeland Security Terror Threat Alert).

195 Dalley, *supra* note 3, at 1123.

196 See *id.* at 1123–24.

197 Manufacturers of Liquid Paper, for instance, reformulated its product. See Visconti, *supra* note 142, 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.

198 See Hofmann, *supra* note 33 (reviewing FTC enforcement of online privacy through 2010); see also Cate, *supra* note 9, at 357 (“What is immediately 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.”).

199 For instance, the Electronic Privacy Information Center routinely cites privacy policies in complaints filed with the Federal Trade Commission. See, e.g., EPIC FTC Complaint, *In re* Google, Inc. (Feb. 16, 2010), available at http://epic.org/privacy/ftc/googlebuzz/Google_Buzz_Supp_Complaint.pdf. For a list of complaints filed by EPIC, see epic.org.

200 See, e.g., Julia Angwin & Tom McGinty, *Sites Feed Personal Details to New Tracking Companies*, WALL ST. J. (July 30, 2010), <http://online.wsj.com/article/SB10001424052748703977004575393173432219064.html>.

The strategy of looking to companies' privacy disclosures can be effective, but it faces at least one serious limitation: privacy policies do not always contain relevant or helpful information. The language tends to be very general and noncommittal about company practice.²⁰¹ This lack of detail is in a way understandable: current best practice requires specifically that companies write privacy policies in a way that is accessible to lay people, whom a high degree of technical detail would alienate.²⁰² But this generic, accessible language also can interfere with the ability of sophisticated outsiders to understand and critique a given company's data practices.

Visceral notice—aimed at a rapid, sometimes focused change to a consumer's mental model—could contain even less actionable information from the perspective of corporate watchdogs. This is not to say that design entirely lacks content. Scholars such as Woodrow Hartzog and Nancy Kim have begun to discuss how web design and settings can form the basis of legal obligations in contract.²⁰³ Moreover, if consumers confront erroneous individual information in privacy “dashboards” and other techniques of showing, the FTC could likely pursue the claim as deceptive. But generally speaking, visceral notice may not always contain the same actionable sorts of information as a written policy.

One promising strategy might be to split notice into separate tracks: visceral notice based on design psychology for consumers, and detailed technical notice available upon request to more sophisticated parties such as regulators, journalists, and nonprofits.²⁰⁴ It is not clear consumers always need more detailed information; behavioral economics offers several ways that more information can sometimes

201 See *supra* note 87 and *infra* note 217 for examples.

202 *Fair Information Practice Principles*, FED. TRADE COMM'N, <http://www.ftc.gov/reports/privacy3/fairinfo.shtm> (last visited Jan. 12, 2012). Of course, as discussed above, privacy policies have a long way to go to meet this target.

203 See Woodrow Hartzog, *Website Design as Contract*, 60 AM. U. L. REV. 1635, 1655 (2011) (“Judges should better recognize 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.”); 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, *Online Contracts: Form as Function* (2010) (unpublished manuscript) (on file with author).

204 I owe this suggestion to Berin Szoka.

impoverish decision making.²⁰⁵ In any event, there would be little to prevent the most sophisticated consumers from studying the more detailed terms as inclined. The end result could be more effective notice for consumers *and* more detailed information for watchdogs.

The two-track strategy has a second advantage: courts may be less likely to assume that consumers have read reports geared toward experts and regulators, and hence will not hold consumers to an understanding they do not have. Although, as discussed, consumers do not generally read privacy policies or terms of use, courts sometimes act as though they have in the event of a conflict.²⁰⁶ Empirical assessments—for instance, by Robert Hillman—suggest that online shoppers do not take terms of service into account when deciding where to purchase goods or services,²⁰⁷ nor are they able to bargain for different terms.²⁰⁸ At the same time, such terms serve to insulate businesses from later claims of unfairness or procedural unconscionability.²⁰⁹ In the event of a conflict, courts may assume the consumer has read the policy and hold her accountable for what it describes.²¹⁰ A two-track system of visceral notice for consumers and more fulsome notice for other, more sophisticated stakeholders could combat the assumption that consumers had read and agreed to longer terms, and yet preserve the advantages of transparency.²¹¹

Indeed, notice scholarship generally could benefit from the recognition that merely because one form of notice—say, privacy policies—happens not to work, it does not follow that no mandatory

205 See Alessandro Acquisti & Laura Brandimarte, *The Economics of Privacy*, in THE OXFORD HANDBOOK OF THE DIGITAL ECONOMY (Martin Peitz & Joel Waldfogel eds., forthcoming 2012); Nehf, *supra* note 122, at 5–6.

206 See, e.g., *Bott v. Vistaprint USA, Inc.*, 392 F. App'x 327, 327–28 (5th Cir. 2010) (“A consumer cannot decline to read clear and easily understandable terms”); *In re Facebook Privacy Litig.*, No. C 10-02389, 791 F. Supp. 2d 705, 718 (N.D. Cal. 2011) (“Under California law, unjust enrichment is an action in quasi-contract. However, ‘as a matter of law, a quasi-contract action for unjust enrichment does not lie where . . . express binding agreements exist and define the parties’ rights.’” (quoting *Villager Franchise Sys., Inc. v. Dhami, Dhami & Virk*, No. CVF 04-6393, 2006 WL 224425 (E.D. Cal. Jan. 26, 2006))).

207 Robert A. Hillman, *Online Boilerplate: Would Mandatory Website Disclosure of E-Standard Terms Backfire?*, 104 MICH. L. REV. 837, 839–40 (2006) (assembling cases).

208 See *id.* at 840–41.

209 See *id.* at 842.

210 Cf. *id.* at 839–40 (arguing that published policies may lead to safe harbors for businesses which draft questionable language).

211 Consumers could still be held accountable for being on notice of whatever the visceral notice conveyed—for instance, that third-party ad networks were tracking the consumer in order to deliver targeted ads. The case would hopefully be if anything stronger.

information strategy could. Different problems can demand different information solutions.

Consider another digital 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.²¹² One concern is that law enforcement may delay the service provider from telling the user that her records are under subpoena.²¹³ This makes it difficult for the user to argue to quash the subpoena—even where she might have a very strong case. Thus, instead of a consumer who needs information, 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 not terms in a privacy policy but a requirement to notify the subject of the request.

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, led to calls for reform.²¹⁴ 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.²¹⁵ Consumers may not read them but activists and the press likely will.

Yet another issue is that consumers do not understand the due process ramifications of storing information in the Internet “cloud,”²¹⁶ as opposed to a physical file cabinet at home. Consumers lack this understanding because terms of use tend to be vague on this point, saying, for instance, that the company will comply with any law-

212 18 U.S.C. § 2703(d) (2006). 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 (2006 & Supp. IV 2010). For a comprehensive discussion of the SCA, see Orin S. Kerr, *A User's Guide to the Stored Communications Act, and a Legislator's Guide to Amending It*, 72 GEO. WASH. L. REV. 1208 (2004).

213 See 18 U.S.C. § 2705 (2006).

214 See 18 U.S.C. § 2709. For proposed reform, see National Security Letters Reform Act of 2009, H.R. 1800, 111th Cong. (2009) (“To establish reasonable procedural protections for the use of national security letters, and for other purposes.”).

215 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. 18 U.S.C. § 2519 (2006 & Supp. IV 2010).

216 That is, in a remotely located server, instead of on the computer or other hardware device, often called the “client.”

ful request for information.²¹⁷ Here, the solution could involve clearer terms or ground rules—ideally in a format that users can digest. Some companies might commit to pushing back against requests and thereby gain consumer trust.²¹⁸

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.²¹⁹ 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.²²⁰

If anything, the fact that notice comes in various, policy-relevant forms presents an incidental challenge to notice skepticism. Specifically, it raises the question of whether the failure of notice meaningfully to address a given problem stems from a kind of 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.

B. *Bad Incentives*

Traditional notices can be ineffective at informing consumers. There is also evidence that notices can sometimes do more harm than good. Privacy policies are again a good example. Few read or under-

217 See, e.g., *Privacy Policy*, AT&T, <http://www.att.com/gen/privacy-policy?pid=2506> (last visited Jan. 12, 2012) (providing it may share personal information “for purposes such as: . . . [c]omplying with court orders and legal process”); *Privacy Policy*, SEARS, http://www.sears.com/shc/s/nb_10153_12605_NB_CSprivacy?i_cntr=1320375319185 (last visited Jan. 12, 2012) (“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.”).

218 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.” *Privacy Policy*, NAVIGENICS, http://www.navigenics.com/visitor/what_we_offer/our_policies/privacy/#disclosure (last visited Jan. 12, 2012).

219 See 18 U.S.C. §§ 2701–2712 (2006 & Supp. IV 2010).

220 The government has also taken the position in litigation that merely opening an email takes it out of warrant territory. See *United States v. Warshak*, 631 F.3d 266, 291 (6th Cir. 2010). 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 of protection.

stand them.²²¹ But worse still, they can falsely reassure consumers: a majority of adults in one survey saw the words “privacy policy”—required under state law—and assumed that the company safeguards their information in specific, but often incorrect, ways.²²² Consumers that assume away bad practices cannot police against them.

Sometimes notice fails to accomplish its objectives because the regulated entity takes purposive steps to reduce or reverse the impact of notice. 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.”²²³ A lawsuit filed in 2003 alleges that a handset manufacturer purposefully designed consumer notices in such a way that they were unlikely to be opened.²²⁴ There is also evidence that some police officers take steps to soften or mitigate *Miranda* notices²²⁵ and that doctors will sometimes downplay warnings of side effects while emphasizing the risks of not taking medicine.²²⁶

If experience turns out to be in some ways a more powerful form of notice, then would not companies turn this tool to their own advantage by designing misleading websites or other interfaces? In other words, perhaps firms would embrace the techniques behind visceral notice, but only falsely to reassure consumers or to lull them into disclosing more information.

Whether design psychology gets abused in this way would seem to depend on company incentives.²²⁷ As Hanson and Kysar explore in another context, companies face financial incentives to leverage their

221 See *supra* notes 134–38.

222 See HOOFNAGLE & KING, *supra* note 17, at 4. 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. See *id.*

223 Aaron Rutkoff, *Restaurant Makes Best Out of ‘B’ Grade*, WALL ST. J. METROPOLIS BLOG (Sept. 17, 2010, 4:04 PM), <http://blogs.wsj.com/metropolis/2010/09/17/restaurant-makes-the-best-of-b-grade>.

224 See *Pollard v. Ericsson, Inc.*, 22 Cal. Rptr. 3d. 496, 498 (2004). The court eventually found against the plaintiffs. See *id.* at 501.

225 See Weisselberg, *supra* note 25, at 1557–62.

226 See Ben-Shahar & Schneider, *supra* note 4, at 699 (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 D. Hanson and Douglas A. Kysar argue in another context, firms need not even engage in this conduct knowingly to reduce the efficacy of product warnings. See Hanson & Kysar, *supra* note 142, at 637 (“[M]anufacturers have incentives to utilize cognitive biases actively to shape consumer perceptions throughout the product purchasing context and independently of government regulations.”).

227 See Hanson & Kysar, *supra* note 76, at 1420, 1423–25.

knowledge of consumer habits to manipulate the market.²²⁸ Competitive pressure can incentivize misleading or otherwise manipulative disclosures, even absent a conscious intention on the part of the company.²²⁹

Focusing on product safety, Hanson and Kysar suggest that strict liability will create the proper incentives for good warning.²³⁰ Another, simpler method may be the use of goal-based, or outcome determinative, rules. The idea is to measure the sufficiency of visceral notice by reference to outcome—in this case, whether the consumers had an accurate mental model of the product or service they are using. Thus, companies would have to certify—for instance, through an agency lab process like that of the Federal Communications Commission for wireless-enabled devices, or some other independent audit—that consumers understood how a website or other product or service works.

The Federal Trade Commission experimented with just such an approach as far back as 1973.²³¹ The *In re RJR Foods, Inc. v. FTC*²³² consent decree contained a safe harbor providing that RJR could get out from under the requirements of the decree if it could show through an independent survey that consumers were no longer confused by its product.²³³ In 2011, Senators John Kerry and John McCain introduced legislation that would provide a safe harbor for companies engaged in “privacy by design”²³⁴—a concept championed by Canadian privacy official Ann Cavoukian²³⁵—as determined by certified independent auditors. Privacy by design means companies keep in mind certain aspirational best practices as they design, test, and implement their products. Visceral notice could become a gold standard practice with respect to transparency.

228 *See id.*

229 *See id.* at 1427 (market pressures can yield this outcome “regardless of manufacturers’ awareness of the process”).

230 *See* Hanson & Kysar, *supra* note 142, at 693–745.

231 *See* Craswell, *supra* note 168, at 583. Craswell cites to William L. Wilkie & David M. Gardner, *The Role of Marketing Research in Public Policy Decision Making*, 38 J. MARKETING 38, 41 (1974), for a summary of this approach.

232 83 F.T.C. 7 (1973).

233 *See id.* at 30.

234 Commercial Privacy Bill of Rights Act of 2011, S. 799, 112th Cong. § 103 (2011).

235 *See generally* ANN CAVOUKIAN, *PRIVACY BY DESIGN* (2009) (discussing the concept of “privacy by design”).

Oliver Wendell Holmes notwithstanding,²³⁶ we may wonder about the capacity of courts or regulators to determine the sufficiency of experience as a kind of legal notice. No doubt this assessment will take sophisticated, interdisciplinary training on the part of agency employees or contractors. But special expertise is one of the reasons we defer to agencies,²³⁷ which have already engaged outside communications experts to test the efficacy of notice in the context of financial disclosure under GLB and other places.²³⁸ And there are areas—one is trademark—where litigants routinely argue over the impact and intent of design using expert testimony.²³⁹ In short, we would not be building on empty ground: regulatory mechanisms already exist that seek to realign company incentives and test the adequacy of design.

C. *First Amendment Concerns*

Finally, a transition from text to experience could trigger additional or different scrutiny under the First Amendment. The use of visceral notice could, in theory, implicate free speech to a greater degree than traditional notice along at least two related lines.²⁴⁰ First, it may be that visceral notice fits uneasily within the category of “purely factual and uncontroversial information,” which occasions lesser First Amendment scrutiny than other compelled speech.²⁴¹ Second, even assuming that visceral notice can be designed to fit within

236 OLIVER WENDELL HOLMES, JR., *THE COMMON LAW* 1 (Am. Bar Ass’n 2009) (1881) (“The life of the law has not been logic: it has been experience.”).

237 *See Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 865 (1984).

238 *See, e.g.,* LEVY & HASTAK, *supra* note 37, at 17 (describing a study about notice on behalf of five federal agencies and recommending the use of tables). One might also mention the interdisciplinary expertise available to members of Congress through the Congressional Research Service.

239 *See Qualitex Co. v. Jacobson Prods. Co., Inc.*, 514 U.S. 159, 162 (1995) (examining whether the Lanham Act permits the registration of a particular color as a trademark).

240 There is a third, more subtle way in which visceral notice may implicate free speech. Some of the methods discussed in Part I involve creating in web users the feeling of being observed and evaluated. At the margins, this may affect what users are willing to do or say on the web. Users may be less likely to engage in certain categories of behavior—for instance, searching for controversial topics on the Internet. For a full discussion of how technological interfaces can chill curiosity and free expression by creating a feeling of being observed and evaluated, see M. Ryan Calo, *People Can Be So Fake: A New Dimension to Privacy and Technology Scholarship*, 114 PENN ST. L. REV. 809 (2010).

241 *Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio*, 471 U.S. 626, 651 (1985).

this less suspect category, there may be a basic sense in which regulators and courts remain uncomfortable dictating website design or other, aesthetic considerations to a company.

The First Amendment generally frowns upon the government attempting to coerce an individual or organization to speak any particular message.²⁴² In the extreme, this principle would seem to preclude notice as a regulatory strategy, depending as it does on forcing a company to speak about its practices in a particular way. California's law, for instance, requires that Internet services include the words "privacy policy" anywhere the service collects personally identifiable information, and further that the words link to a document with specific categories of information about the company's data collection practices.²⁴³

The courts have carved out an exception for certain regulations aimed at commercial speech where the primary goal is to convey factual information.²⁴⁴ Thus, the state may require that a fast food company conspicuously post the calorie content of the items on its menu.²⁴⁵ This exception has limits, however, even when it comes to truthful information. California law at one point required that credit card companies disclose to individual consumers the length of time it would take them to pay off their balance through minimum payments.²⁴⁶ 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.²⁴⁷

Minimum payment disclosure rules are controversial, if at all, because they implicitly condemn and reduce a specific practice that is profitable for credit card manufactures but likely has a negative impact on most consumers. Recent rules promulgated by the Food and Drug Administration around cigarette health warnings provide a more recent and vivid example. In June of 2011, the FDA published a final rule requiring the prominent display of "graphic warnings" on

242 See *Rosenberger v. Rector & Visitors of Univ. of Va.*, 515 U.S. 819, 830 (1995) (describing compelled speech as "presumptively unconstitutional"); *Wooley v. Maynard*, 430 U.S. 705, 714 (1977).

243 CAL. BUS. & PROF. CODE §§ 22575–22579 (West 2008).

244 See *Zauderer*, 417 U.S. at 651.

245 The new Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010), for instance, directs the Food and Drug Administration to promulgate rules around calories counts in fast food restaurants. Many states and municipalities already have such rules in force.

246 CAL. CIV. CODE § 1748.13 (West 2009). Thanks to Chris Hoofnagle for this example.

247 *Am. Bankers Ass'n v. Lockyer*, 239 F. Supp. 2d 1000, 1018 (E.D. Cal. 2002).

cigarette packages.²⁴⁸ The new warnings included images such as a cadaver lying on an autopsy table or a plume of cigarette smoke enveloping an infant.

The cigarette industry won a preliminary injunction against the regulations in federal court on the basis that the graphic images were likely to violate their rights as against compelled speech under the First Amendment.²⁴⁹ Interestingly, the court based its decision in large part on the extent to which the warnings seemed calculated not better to apprise smokers of factual risk, but to reduce smoking. According to the court, the “emotional response [the images] were crafted to induce is calculated to provoke the viewer to quit, or never start, smoking: an objective wholly apart from disseminating purely factual and uncontroversial information.”²⁵⁰

The concern that more visceral notice might not survive First Amendment scrutiny highlights the importance of the distinction highlighted in Part I of this Article. The FDA’s notice is “visceral” in the sense that it draws upon consumer psychology to achieve greater salience. But the rules are open to the criticism that they stray too far from the central goal of notice, which is better information. Indeed, as the court repeatedly notes in deciding against the agency, the FDA justified its new rules not by reference to what the consumer would understand about the risks of smoking, but by reference to the impact the images had on cigarette consumption in other jurisdictions where graphic warnings were already in place.²⁵¹ The FDA was arguably not really using a notice strategy.²⁵²

It may well be a reasonable goal to frighten current and potential smokers, given the established risks to health and the role of nicotine addiction. But it is not a *notice* goal. The purpose of visceral notice is, ideally, the same as with any notice: to ensure consumers have the correct mental model of the product or service and can make decisions accordingly.²⁵³ Again—and as the example of smoking warnings highlights—achieving salience without resorting purely to behavioral

248 Required Warnings for Cigarette Packages and Advertisements, 76 Fed. Reg. 36,628 (June 22, 2011) (to be codified at 21 C.F.R. pt. 1141).

249 See *R.J. Reynolds Tobacco Co. v. FDA*, Civil No. 11-1482 (RJL), 2011 WL 5307391, at *11 (D.D.C. Nov. 7, 2011).

250 *Id.* at *5.

251 See *id.* at *5–10.

252 See *id.* at *7 (“As best I can discern, however, the Government’s primary purpose is not, as it claims, merely to inform.”). But see *Commonwealth Brands, Inc. v. United States*, 678 F. Supp. 2d 512, 530 (W.D. Ky. 2010) (rejecting a challenge to the same graphic warning labels on the basis that they merely inform).

253 See *supra* notes 106–09 and accompanying text.

triggers is very difficult and requires careful, interdisciplinary study. On this view, the First Amendment helps to safeguard an appropriate role for visceral notice and highlights the importance of maintaining its allegiance to the classic notice mechanism.

Regardless of whether the goal is informing or incentivizing, regulators may take issue with dictating aesthetic considerations to a company at all. You can agree that design psychology holds promise in better informing consumers of the risks and realities of data privacy, but nevertheless bristle at the notion that California regulators determine the look and feel of Google or Mozilla's newest service. The idea is that the government should not be involved in how a company presents itself or its services because placing limits on design options could hamper innovation, or merely that dictating the appearance of a website feels too much like censorship.

A possible middle ground might be found in the use of safe harbors and other, incentive-based mechanisms already described in this Part. The idea would be that—rather than tell a company it must use specific, visceral interventions—regulators and courts could point to such techniques as best practice, which in turn will reduce the likelihood of negative outcomes such as enforcement proceedings under the FTC Act. This would permit companies to experiment with different designs and help ensure that governments are not determining how services appear. Moreover, compliance would ultimately be voluntary, helping further to mitigate the burden on speech.

CONCLUSION

Mandatory notice is a popular but controversial form of regulation. It is popular because it is perceived by government and industry as easier, cheaper, and less invasive than restricting conduct. It is controversial in that many are skeptical that notice ever works in practice. The arguments against notice, in online privacy and elsewhere, tend to follow the same pattern: notice is ineffective because consumers never see it and, when they do, they cannot make much use of it. The understandable conclusion that notice does not work in practice has led skeptics to reject notice entirely as a regulatory strategy—an action that would send regulators back to the proverbial square one.

It may well be that, no matter how popular or advantageous a strategy, we need to abandon mandatory notice in favor of something else. This Article has argued that extreme skeptics of notice move too fast, however, in rejecting the potential of privacy notice to warn or inform consumers. Emerging strategies that do not necessarily rely on words or symbols to convey salient information to consumers may not

be susceptible to the same withering critiques as more traditional notice. Especially given the paucity of alternatives, such “visceral” notice strategies are worthy of further exploration to ensure we know the full panoply of options available to regulators and courts.

In short, this Article has identified a radical new dimension to notice in one context and urged further investigation. Without it, reports of the death of notice remain exaggerated. Although the focus of the Article has been online privacy—where notice is among the only affirmative obligations websites face and where opportunities for innovation are perhaps unique—its insights go beyond privacy or the Internet. We might explore the potential of visceral notice in contexts as variable as traffic safety, cyberbullying, and water purity.

What is needed in each instance is a commitment on the part of regulators and industry to innovate around notice, an open mind on the part of critics, and a willingness within multiple disciplines to assess the results of such innovation. The way forward in notice is difficult but, this Article has argued, it is also worthwhile.