



May 27, 2016

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Protecting the Privacy of Customers of Broadband and
Other Telecommunications Services, WC Docket No. 16-106

Dear Ms. Dortch:

Attached for your consideration is a White Paper by Joshua D. Wright, entitled "An Economic Analysis of the FCC's Proposed Regulation of Broadband Privacy." Mr. Wright was, until recently, a commissioner at the Federal Trade Commission and has extensive experience with privacy enforcement and economic analysis.

In this submission, Mr. Wright concludes that the privacy interests of consumers would be harmed by the proposals in the Commission's Privacy Notice. He explains that the Notice's one-size-fits-all regulatory regime is not calibrated to the sensitivity of consumer data or to the potentiality for a given use to result in consumer harm, as would be the norm in privacy. He observes that the Notice ignores the multi-sided nature of the broadband Internet market and thus fails to consider important economic costs and benefits affecting consumers, ISPs, and innovation. He provides economic analysis that shows that the Commission's Notice proposes a regime that, if adopted, would inflict significant welfare losses on consumers, including higher prices for broadband and other services offered by ISPs, more irrelevant and inefficient advertising, and less competition, innovation and experimentation throughout the online ecosystem.

Please contact the undersigned should you have any questions.

Respectfully submitted,

A handwritten signature in blue ink that reads "Jonathan Banks".

Jonathan Banks
Senior Vice President, Law & Policy

Attachment

**An Economic Analysis of the
FCC's Proposed Regulation of Broadband Privacy**

Joshua D. Wright

May 27, 2016

· Dr. Joshua D. Wright is University Professor, Antonin Scalia Law School at George Mason University, Senior of Counsel at Wilson Sonsini Goodrich & Rosati P.C., and former Commissioner of the Federal Trade Commission. The views expressed herein are my own. USTelecom provided financial support for this analysis.

I. Executive Summary

A. Qualifications

I am currently a University Professor of Law at the Antonin Scalia Law School at George Mason University School of Law. I also hold a courtesy appointment in the George Mason University Department of Economics.

From January 2013 to August 2015, I was a Commissioner of the Federal Trade Commission. I am expert in the economic and legal issues arising within the Federal Trade Commission's jurisdiction, including competition, privacy, and consumer protection. The Federal Trade Commission has considerable law enforcement, regulatory, and policy experience in broadband markets.

I have been published in leading academic journals in both law and economics, including *Journal of Law and Economics*, *Antitrust Law Journal*, *Yale Law Journal*, *Northwestern Law Review*, *Competition Policy International*, *Review of Industrial Organization*, *American Law & Economics Review*, *Supreme Court Economic Review*, *Yale Journal on Regulation*, *Journal of Competition Law and Economics*, *Review of Law and Economics*, and the *UCLA Law Review*. I have published several articles and speeches relating to antitrust, consumer protection, privacy regulation, and economics in broadband markets.

I teach courses on antitrust law and economics as well as economic analysis for lawyers. I also have been invited as a guest lecturer in graduate level courses in industrial organization, focusing upon antitrust economics. I frequently lecture state and federal judges on economic analysis of law generally, and antitrust specifically, in conjunction with the George Mason University Law and Economics Center Judicial Education Program and the Global Antitrust Institute's programs for international regulators and judges. In addition, I teach microeconomics, the economics of regulation, and antitrust economics in other settings, including the annual Antitrust Fundamentals course offered at the American Bar Association Antitrust Section's Spring Meeting.

I earned a Ph.D. in economics from the University of California at Los Angeles in 2003. I earned a J.D. from the University of California at Los Angeles

School of Law in 2002. I received a B.A. in economics from the University of California at San Diego in 1998.

B. Summary of arguments

The privacy interests of consumers are not advanced by the FCC's proposal. Consumers can – and those who care, already do – make informed decisions about whether to permit certain marketing uses of their data today. The NPRM's one-size-fits-all regulatory regime is not calibrated to the sensitivity of consumer data or to the potentiality for a given use to result in consumer harm. The regime set forth by the NPRM ignores the multi-sided nature of the market and fails to consider the economic costs and benefits affecting consumers, ISPs, and innovation. As a result, well accepted economic analysis suggests the NPRM establishes a regime that would ultimately inflict significant consumer welfare losses, in the form of higher prices for broadband and other services offered by ISPs, a greater rate of irrelevant and inefficient advertising, and reduced innovation and experimentation in the online ecosystem.

II. Introduction

On March 31, 2016, the Federal Communications Commission (FCC) formally adopted and issued a Notice of Proposed Rulemaking (NPRM) setting forth a proposed privacy regulatory scheme with serious implications for providers of broadband services and their customers.¹ According to the FCC, the proposed rules are in furtherance of the “core privacy principles” of “transparency, choice, and security” that form the basis of the government’s effort to safeguard the data of consumers and enhance privacy interests.² But the rules, as proposed, are unlikely to further such principles, and could in fact result in unexpected and unintended consequences, particularly with respect to consumer choice. The economics of the market for broadband services suggest that the proposed rules will likely result in higher prices to consumers, fewer options in the market for broadband services, reduced innovation, and less competition in the market for online advertising. Increasingly, Internet Service Providers (ISPs) compete as platforms in a multi-sided market, and their ability to develop and foster revenue streams on one side of the market is inextricably linked to their ability to satisfy consumer demand and offer significant cost savings on the other side. The NPRM threatens this emerging market structure, and fails to account for its many unique attributes. This paper outlines the economic reasons that the proposed rules, if implemented, will result in significant negative effects for consumers and will not serve to enhance privacy interests as anticipated.

III. Overview of the FCC’s Proposed Regulations

Before evaluating the economic implications of the FCC’s proposal, it is necessary to examine the specific proposals contained in the NPRM. *First*, at the heart of the FCC’s proposal lie significant restrictions on the ability of ISPs to use consumer information. The NPRM proposes two categories of restrictions for any use of information that is not inherent to the purchase of broadband service by a

¹ See Notice of Proposed Rulemaking, Fed. Comm’ns Comm’n, WC Docket No. 16-106 (April 1, 2016) (hereinafter “NPRM”).

² See NPRM ¶ 5.

subscriber.³ First, for uses of information related to the marketing of “communications-related services” by either the ISP or an affiliate, the ISP need only provide the customer with the opportunity and ability to *opt out* of such a use.⁴ Second, and more significantly, the NPRM requires ISPs to seek affirmative *opt-in* consent from each customer for use of data for any other purpose.⁵ The burden this opt-in requirement imposes is immense, and sufficient to shut the door to many constructive and welfare-enhancing uses of data in the market.

Second, the proposal casts an extremely wide net as to what types of data might be subject to the opt-in provision. In addition to Consumer Proprietary Network Information (CPNI) – information subject to existing FCC rules in connection with telephone services⁶ – the NPRM extends the universe of data subject to the opt-in requirements to include personally identifiable information (PII)⁷, a set of data the FCC defines broadly to encompass everything from passport numbers, to cookies, to network traffic statistics.⁸ While there may be certain categories of highly sensitive information for which express opt-in consent is appropriate from a policy perspective, such as Social Security Numbers (SSNs) or financial account information,⁹ to apply such a restrictive default rule across such a broad swath of data types, as the NPRM proposes, is inappropriate and unnecessarily burdensome.¹⁰

³ According to the NPRM, uses inherent to the purchase and provision of the service, and for which consent is implied, include uses for billing purposes, avoidance of cybersecurity threats, routing of e-mail, etc. See NPRM ¶¶ 111-121.

⁴ *Id.* ¶¶ 122-126.

⁵ *Id.* ¶¶ 127-133. Exchange of aggregated data is permitted without seeking customer opt-in, but this is not the case for the exchange of non-aggregated but de-identified data under the NPRM. See *id.* ¶ 165.

⁶ NPRM ¶¶ 7, 38, 56.

⁷ *Id.* ¶¶ 15, 62; see also *id.* app. A (47 C.F.R. § 64.2003, as proposed).

⁸ *Id.* ¶ 62. Some have argued that the FCC’s authority does not encompass data that falls outside the statutory definition of CPNI. We assume for purposes here that the FCC’s asserted jurisdiction over PII is valid.

⁹ *Id.* ¶ 21; Dissenting Statement of Commissioner Michael O’Reilly (describing opt-in as a regime “previously . . . reserved for the most sensitive of information”).

¹⁰ For instance, as written, the NPRM would require the same opt-in consent for an ISP to share with potential advertisers an individual consumer’s media access control (MAC) address – which

Third, the FCC’s proposed approach differs significantly from the well-established and successful approach taken by the Federal Trade Commission (FTC) over the last two decades. Rather than imposing a rigid regulatory framework, the FTC focuses on the sensitivity of the data at issue and the potential harm to consumers deriving from disclosure or misuse of that data. In this way, the FTC looks to consumer welfare as its lodestar. FTC enforcements have served to effectively safeguard consumer privacy across all industries, providing a welcome degree of predictability and uniformity via a model of regulatory oversight that has allowed the Internet economy to thrive.¹¹

Because of its focus on the net welfare of consumers, rather than on set, inflexible categories of data, the FTC has been able to reserve its demands for “the highest degree of protection, affirmative express consent (opt-in)” to limited situations involving “specific uses like making material retroactive changes to privacy representations, or collecting sensitive information, such as information about children, financial and health information, Social Security numbers, and precise geolocation data.”¹² The FTC’s approach to safeguarding privacy applies across all industries and has fostered an online ecosystem that has generated incredible benefits to consumers. Such an approach allows innovative technology companies freedom to responsibly use data in ways that result in new products, lower prices, and increased consumer welfare. In contrast, the FCC proposes a rigid, one-size-fits-all regulatory approach, forgoing the individualized analyses that leave space for innovative, welfare-enhancing uses of customer information.¹³ The NPRM itself expresses reservations that its opt-in proposal

identifies the consumer’s device, including manufacturer and model – as it would to share that consumer’s SSN. Consumers themselves do not reasonably expect these two categories to be subject to the same level of restrictions. *See* NPRM ¶¶ 44, 62.

¹¹ Jon Leibowitz & Jonathan Nuechterlein, “The New Privacy Cop Patrolling the Internet,” *Fortune* (May 10, 2016), <http://fortune.com/2016/05/10/fcc-internet-privacy/> (“[The FTC’s] enforcement-oriented approach has a proven track record of success. It is flexible and promotes high-tech innovation, but it has held hundreds of companies, large and small, accountable when they crossed the line.”).

¹² *See* Dissenting Statement of Commissioner Michael O’Rielly.

¹³ *See* Leibowitz & Nuechterlein, *supra* note 11 (“The [NPRM’s proposed] rules would further subject all ISPs—and ISPs alone—to unprecedented compliance costs and keep them from efficiently monetizing online data in the same way that Google and Facebook have long done, with astounding consumer benefits.”).

might not be sufficiently “narrowly tailored” in its quest to promote consumer privacy.¹⁴ Unlike the FTC’s existing and successful, consumer-centric approach, the FCC’s proposal is burdensome, unwarranted, and will restrict the flow of information that feeds innovation.

IV. The Economics of Multi-Sided Markets

In the past, the market for broadband services operated as a traditional, one-sided market with transactions limited to direct interactions between ISPs and their subscribers. Increasingly, however, the market is operating as a multi-sided “platform” where an ISP also acts as an intermediary, facilitating interactions between consumers on one side and advertisers on the other. As a result, ISPs have found themselves at the center of a multi-sided market, working with businesses and advertisers to market welfare-enhancing products and services to consumers on the one hand, and providing valuable broadband services to consumers on the other hand. This shifting dynamic fundamentally changes the economic forces at work in these markets, and, in turn, the appropriate regulatory scheme to maximize consumer welfare.

As the long-time regulator of voice and telephony services, the FCC has ample expertise regulating traditional, one-sided markets. Unsurprisingly – but problematically – the FCC’s NPRM looks to familiar regimes governing single-sided markets, like that for traditional voice services, for guidance as to how to design the regime for ISPs.¹⁵ But the market for traditional voice services, unlike that for broadband services, is not multi-sided. And relying upon economic insights for single-sided markets to construct rules for multi-sided markets leads to erroneous policy conclusions and to overly burdensome obligations for which consumers will ultimately pay.

A. Multi-Sided Markets

There is no single definition for a multi-sided market, but there are two key aspects of multi-sided markets that are important to understand their multi-faceted nature. As scholars have observed, multi-sided markets “enable direct

¹⁴ See, e.g., NPRM ¶ 126.

¹⁵ See *id.* ¶ 69.

interactions between two or more distinct sides” of the market where “[e]ach side is affiliated with the platform” at the center.¹⁶ Multi-sided markets are ubiquitous and encompass both old and new industries. Traditional newspapers and magazines (which bring together readers and advertisers) and today’s technology sector, including platforms like Uber (which brings together drivers and riders), Google (search engine users and advertisers), and Apple (users, software developers, and hardware suppliers) all exhibit the hallmarks of multi-sided markets.

Today, ISPs feature many of these same characteristics. For example, ISPs might offer free Wi-Fi to customers who subscribe to their other services, with retailers paying to enable their locations with loyalty or optional programs for their customers to browse the web. As the market has evolved, ISPs have explored and taken steps to begin competing in this desirable space. And the initial steps they have taken to deploy data to better serve third-party advertisers on one side of the market, and consumers simultaneously on the other, may yet create even more innovative business models. As FTC Commissioner Ohlhausen has noted, each of the novel and beneficial uses to which data may be put are not always apparent at the time the data is generated or collected.¹⁷ This means ISPs could not only generate the kinds of “astounding consumer benefits” that have already been realized by other platforms using consumer data,¹⁸ but also further transform the ecosystem and discover additional consumer value. The ill-fitting and harmful regulatory regime the NPRM would impose threatens to stifle the entrepreneurial activity that creates that value for consumers.

B. Multi-Sided Markets Feature an Interdependency of Demand

¹⁶ Andrei Hagiu & Julian Wright, Multi-Sided Platforms, Harvard Business School Working Paper 15-037, at 5 (Mar. 16, 2015), http://www.hbs.edu/faculty/Publication%20Files/15-037_cb5afe51-6150-4be9-ace2-39c6a8ace6d4.pdf.

¹⁷ See Maureen K. Ohlhausen, Commissioner, Fed. Trade Comm’n, Remarks at the George Mason University School of Law: The FTC, The FCC, and BIAS (Mar. 30, 2016), https://www.ftc.gov/system/files/documents/public_statements/942823/160331gmuspeech1.pdf (“Regulation . . . often reflects the status quo, and, in extreme cases, unintentionally precludes future beneficial developments. In the area of privacy, notice and choice frameworks can be biased against future uses of data. . . . Yet data, including non-sensitive data, often yields significant consumer benefits from uses that could not be known at the time of collection.”).

¹⁸ Leibowitz & Nuechterlein, *supra* note 11.

The fundamental distinguishing characteristic of multi-sided markets is interdependency of demand across different sides of the market. Transactions in traditional, single-sided markets satisfy consumer demand that is independent of other transactions the seller engages in with other buyers. Sellers compete against one another and set the price to maximize profits given consumer willingness to pay. In multi-sided markets, however, competition and pricing are more complex. Pricing incentives in multi-sided markets depend on the interrelationship among the entities on the various sides of the market and the actions of the platform itself in bringing those parties together to transact. For example, a search engine is free to users while advertisers pay per click. If a cost is imposed upon users, fewer users would choose the search engine, and those that do would run fewer searches. This result, in turn, would decrease the value of advertising as the opportunity to reach users decreases. Advertising revenue would fall, negatively impacting the platform.

In a multi-sided platform market, changes in pricing or product design on one side of the market affect all sides of the platform. Consequently, changes that enhance value on one side will translate into benefits on the other side(s). Conversely, changes that diminish value on one side will have a negative impact on the other side(s). In this way, overall consumer welfare is affected by changes across all sides as effects filter through the entire market. A cost-benefit analysis of a given change must be assessed with reference to all sides of a multi-sided market, since costs inflicted on one side of the market will ripple through and be borne on all sides.

C. Policies Affecting Multi-Sided Markets Must Account for Their Unique Attributes and Be Carefully Designed to Reflect the Economics of Platforms

To accurately assess the impact of a given policy or change affecting a multi-sided market, one must analyze the economics affecting all sides. Because of the interdependence between all sides of the platform and the platform itself, changes to any one component are never isolated. Platforms in multi-sided markets must take these cross-market effects into account when making pricing or other decisions. In contrast, firms in one-sided markets do not need to be concerned with this effect. For instance, when a firm that manufactures washing

machines decides on price, it need only consider the prices its purchasers are willing to pay. But a rideshare app considering whether to cap prices for rides must consider not only what riders are willing to pay but also how a price cap might impact the supply of drivers. If prices are capped, fewer drivers might be willing to drive and those that do might drive less following a change that limits their earnings. And with fewer drivers on the road and fewer hours driven, the rideshare app becomes less useful and attractive to consumers.

Application of one-sided economic analysis to a multi-sided platform setting can lead to serious errors and translate to significant costs to consumers. Because of the nature of multi-sided markets, we cannot properly quantify the effect of a price or design change without accounting for the impact across all sides. We might be confident saying that a certain change would allow a grocer to raise prices without looking at how that price increases would affect any other market participant. But if that reasoning were applied to a magazine, for instance, it would overstate the magazine's ability to raise prices because it would not adequately account for decreases in advertising revenues that would inevitably follow a drop in the number of readers (i.e. the decrease in value to advertisers). In the ISP context, these insights dictate that we must be mindful not only of factors such as consumers' interests in privacy, favorable pricing, and quality service, but also of third-party advertisers' abilities and incentives to engage with ISPs and thus to provide additional value to the platform.

The economics of multi-sided platform markets reflect how imposing a cost on one side of a multi-sided market leads to upward pricing pressure on other sides of the platform. Because of the interdependencies of demand in such markets, if one side becomes more expensive, some value on the other side will also be lost to counterbalance the effect of the price increase.

V. Economic Effects of the FCC's Proposed Regulations

As noted above, the NPRM proposes to establish a largely opt-in model with respect to ISP use of consumer information. This opt-in model myopically focuses upon advancing a single value – privacy – without considering the economic costs that decision imposes on consumers and without apparent consideration of other important values such as prices, innovation, and

competition.¹⁹ The NPRM further fails to calibrate its approach to regulating user information, in any meaningful way, to either (1) the level of sensitivity of the information or (2) the propensity of the use at issue to cause harm, including whether the information is actually sold to or shared with third parties or is merely being *used by the ISP that already has the data*. This one-size-fits-all approach to regulating user information is based upon the assumption that users are not capable of making these decisions themselves.²⁰ It presumes that consumers with strong privacy preferences somehow cannot effectively protect these interests by opting-out when doing so would make them better off, and, instead, imposes the burdens to act upon those consumers with weak preferences. Far from benefiting consumers, this regime eliminates the ability of firms to compete and experiment with business models to maximize consumer value and would impose significant costs upon many firms in the online ecosystem – costs that consumers would ultimately bear. These costs would far outweigh the very limited and speculative benefits the NPRM proffers.²¹

This Section proceeds in three parts. Part A explains the economic analysis of default rules in the context of the NPRM. The opt-in versus opt-out default rule choice is one of many important choices in designing a system to protect consumer privacy and economic analysis provides a framework for understanding the default rule that will maximize consumer value. Part B expands upon the various costs that the NPRM's largely opt-in framework would impose. Part C develops the myriad ways in which the costs of this opt-in model would be passed on to consumers, including increased retail prices paid by broadband consumers, indirect losses to consumer welfare (such as decreased ad relevancy and R&D investment), and potentially serious dampening of

¹⁹ While the NPRM certainly purports to advance privacy interests, many of the proposed regulations do not in fact concern privacy at all. Restrictions on how ISPs use customer data in connection with marketing their own or third-party services do not directly implicate customer privacy where, as here, no customer data is disclosed to or shared with third parties. ISPs are merely using data already in their possession.

²⁰ The FCC's approach stands in contrast to the FTC's individualized and flexible approach, an approach which, according to Commissioner Ohlhausen, "maximizes consumer self-determination." See Ohlhausen, *supra* note 17.

²¹ As commentators have recognized, an opt-in model introduces significant costs and burdens but does not necessarily enhance consumer privacy. See Fred H. Cate & Michael E. Staten, *Protecting Privacy in the New Millennium: The Fallacy of "Opt-In"*, National Retail Federation, at 1 (2000), <http://home.uchicago.edu/~mferzige/fallacyofoptin.pdf>.

incentives to innovate and experiment in ecosystems that rely significantly upon utilizing consumer information.

A. The Default Rule Governing User Information that Best Protects Consumers Must be Sensitive to Economic Context

Any regulation addressing how companies may use consumer data that seeks to maximize consumer value must be designed to impose costs on consumers who are willing to pay them, and likewise, avoid imposing costs on those who are not willing to pay them based upon their own preferences. The default rule governing user information and privacy that creates the most value for consumers must, by definition, be responsive to consumer preferences and the costs imposed upon consumers.²²

A key insight of Coase's renowned work is that the optimal default rule in any given situation will depend upon a number of economic factors.²³ In this context, heterogeneous and ever-changing consumer preferences for privacy dictate that the value generated by opt-in versus opt-out regimes is likely to vary significantly across consumers. Consumer value is affected not only by the perceived benefits of the default rule, but also by considerations such as demand elasticities, network effects, and the costs of serving customers. In the case of multi-sided platforms, these considerations must extend across all sides of the platform. The NPRM, however, sets a single default rule for vastly different kinds of information and vastly different uses of that information, without adequate consideration of these important factors.

²² See J. Howard Beales & Jeffrey A. Eisenach, Putting Consumers First: A Functionality-Based Approach to Online Privacy, Navigant Economics, at 10 (Jan. 2013), <http://www.broadbandforamerica.com/sites/default/themes/broadband/images/mail/puttingconsumersfirststudy.pdf> ("As in any regulatory endeavor, the goal should be to maximize the net benefits of the intervention."); Executive Order 13563, Improving Regulation and Regulatory Review, § 1(a) (January 18, 2011) ("Our regulatory system must . . . identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends. It must take into account benefits and costs, both quantitative and qualitative.").

²³ See R.H. Coase, The Problem of Social Cost, 3 J.L. & Econ. 1 (1960).

The NPRM suggests that, aside from two limited circumstances,²⁴ consumers can *only* be properly served by an “opt-in” model, as opposed to the “opt-out” model that tends to predominate today for marketing uses of consumer information. Under the popular opt-out model, the relevant side of the platform, here the ISP, informs consumers as to how it may use their information and then provides consumers with a method to “opt out,” i.e., to prevent that use. The opt-in model the FCC would impose, however, requires an ISP both to inform consumers as to how it intends to use their data and then to obtain consent from users – i.e., have users opt in – before it can merely use that information, even if the ISP never discloses the data to third-party advertisers. As such, the NPRM represents a significant shift in the landscape and merits rigorous evaluation.

To justify this change, the NPRM relies heavily upon the “Fair Information Practice Principles” (FIPPs) of “transparency, choice, and security.”²⁵ These principles have traditionally provided certain insights for understanding potential privacy concerns and solutions. However, they provide only a limited framework for privacy regulation, particularly as it relates to valuable use of information. When that framework is left untethered from rigorous economic analysis, there is considerable risk that privacy regulation will be in tension with improving consumer welfare.

Reliance upon the FIPPs alone often leads to the erroneous conclusion that a problem exists, even when there is no reason to believe certain practices raise any privacy concerns requiring notice and choice. As former FTC Bureau of Consumer Protection Director J. Howard Beales, III, and former FTC Chairman Timothy J. Muris have observed, “the absence of a privacy problem when consumers understand and have a choice about the information collection or use does not imply that a privacy problem exists whenever consumers are ignorant of the information use or lack a choice about it.”²⁶ Indeed, many routine

²⁴ See NPRM ¶ 18 (proposing ISPs always be allowed to user and share customer data for uses “inherent in the creation of the customer-broadband provider relationship,” and that ISP’s be permitted to use opt-out consent for their own communications-related marketing).

²⁵ See, e.g., NPRM ¶¶ 5, 171, 222, 225.

²⁶ J. Howard Beales, III & Timothy J. Muris, Choice or Consequences: Protecting Privacy in Commercial Information, 75 U. Chi. L.R. 109, 113 (2008).

occurrences both entail information uses about which consumers are largely unaware and for which consumers do not provide informed consent – such as ATM transactions and check clearances – but which are, nonetheless, not deemed to raise privacy concerns.²⁷ Similarly, in the ISP context, consumers have existing relationships with their ISPs and understand that their ISPs have and may use certain of their information. As such, the mere fact that ISPs then do, in fact, use this information – aligning with consumers’ expectations of the ISP-consumer relationship – is insufficient to demonstrate a privacy problem that is not already remedied by an opt-out regime.

Indeed, for many consumers, it is simply not worthwhile to incur the transaction costs of opting in – devoting time and attention to understanding a privacy policy’s implications and taking the steps necessary to provide the required consent – because they understand that they will receive the same service from the ISP whether they opt in or not, and they obtain no clear benefit from expending the resources necessary to opt in. In those circumstances, most consumers will simply take the path of least resistance and make no decision at all – thereby failing to opt in by default under the NPRM’s scheme. But that failure simply indicates that the cost of opting in is high; it does not shed any light on consumers’ actual preferences or otherwise indicate that consumers’ privacy interests have been better served. These realities call into serious question the very premise of the NPRM and belie the weakness of its argument that opt-out notice and choice is insufficiently serving consumers today.

Moreover, the NPRM’s sole reliance upon the FIPPs not only fails to consider context and the sensitivity of the underlying data – which both the FTC²⁸ and the White House²⁹ privacy reports emphasize as critical considerations

²⁷ *Id.* at 113. As Beales and Muris note, most consumers in these two examples “have given no consent beyond the fact that they initiated the transaction.” *Id.*

²⁸ See Fed. Trade Comm’n, Protecting Consumer Privacy in an Era of Rapid Change: Recommendations for Businesses and Policymakers (Mar. 2012), <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf>; Fed. Trade Comm’n, Internet of Things: Privacy & Security in a Connected World, at v (Jan. 2015), <https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-staff-report-november-2013-workshop-entitled-internet-things-privacy/150127iotrpt.pdf>.

– but further omits any analysis of the other important economic factors at work in the ecosystem, factors key to identifying the efficient default rule.³⁰ Instead, this reliance allows the NPRM to erect a predominantly opt-in framework that entirely disregards both the degree of sensitivity of the information at issue and the propensity of the use at issue to cause consumer harm (again, aside from two discrete exceptions). For instance, it treats a consumer’s name and shopping records precisely the same as it treats that consumer’s Social Security number and medical and health information.³¹ The difference in the degree of sensitivity of this information is staggering but entirely unaccounted for in the NPRM. Similarly, the NPRM entirely ignores that, for the vast majority of uses, the ISP is not sharing or exchanging consumer information at all, but simply making use of information already in its possession – a scenario that presents less risk of harm than, for example, actually selling consumer information.

The NPRM likewise affords no consideration to the fact that consumers tremendously value the advertising model that dominates the Internet today and that is largely based on opt-out consent. This model would suffer under the NPRM’s strict regime, as described below, but the NPRM ignores these costs – which are likely to be significant. Indeed, one study found that, on average, Americans assigned a value of almost \$1,200 per year to the package of “free, ad-

²⁹ U.S. Executive Office of the President Report, *Big Data, Seizing Opportunities, Preserving Values*, 20 (May 2014), https://www.whitehouse.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf (“Instead of requiring companies to adhere to a single, rigid set of requirements, the Consumer Privacy Bill of Rights establishes general principles that afford companies discretion in how they implement them. The Consumer Privacy Bill of Rights’ ‘context’ principle interacts with its other six principles, assuring consumers that their data will be collected and used in ways consistent with their expectations.”).

³⁰ See Beales & Eisenach, *supra* note 22, at 1 (“[W]e explain why a functionality-based approach, which calibrates oversight to the nature of the data being collected and the uses to which it is put, best protects consumer interests.”); Beales & Muris, *supra* note 26, at 135 (“Protecting sensitive information is important, but there are other vital interests at stake. Wise choices about privacy protection can be made only after careful consideration of the particular uses of information, the problems they may pose for consumers, and the benefits those uses may offer to other consumers and the economy as a whole.”).

³¹ See NPRM ¶ 62 (providing a non-exhaustive list of examples of PII).

supported services and content currently available to them on computers and mobile devices.”³²

Because the NPRM is not responsive to the economic considerations that would lead to selection of a consumer-welfare maximizing default rule, the opt-in regime it proposes would, unsurprisingly, inflict costs on both ISPs and consumers, raise retail prices, and deter the information uses that are vital to the success of the Internet ecosystem.

B. The NPRM’s Opt-in Regime Is Costly

The NPRM sets forth a default opt-in rule requiring ISPs to obtain affirmative permission from consumers for most uses of consumer data. This opt-in framework is a costly one. It imposes numerous burdens on ISPs, inefficiently allocates costs between consumer groups, and creates significant negative externalities. Each of these ill effects is discussed in turn.

First, the opt-in model creates significant costs for the ISPs that must obtain consent. The average consumer both knows that her information will be used for marketing purposes unless she opts out and yet still declines to read the privacy policy or make an active decision. This thought process demonstrates that, for the typical consumer, “decisions about information sharing are not worth thinking about.”³³ The benefit to an individual consumer of thinking through the decision to opt out will often be small relative to the costs of doing so. For this reason, consumers will often accept the default. The rational decision of individual consumers to *not* opt out is one of the reasons the choice of default rule is economically important from a consumer welfare perspective. From an individual consumer’s perspective, the NPRM shifts the default rule to an opt-in regime, surely raising the costs of opting in for those consumers with strong preferences. For those consumers with weaker preferences, the NPRM opt-in

³² See Zogby Poll: Americans Say Free, Ad-Supported Online Services Worth \$1,200/Year; 85% Prefer Ad-Supported Internet to Paid, PR Newswire (May 11, 2016), <http://www.prnewswire.com/news-releases/zogby-poll--americans-say-free-ad-supported-online-services-worth-1200year-85-prefer-ad-supported-internet-to-paid-300266602.html>.

³³ Beales & Muris, *supra* note 26, at 114; see also Aleecia M. McDonald & Lorrie Faith Cranor, The Cost of Reading Privacy Policies, 4 J.L. & Policy for the Info. Society 540, 562 (2008) (estimating that “reading privacy policies carries costs in time of approximately 201 hours a year, worth about \$3,534 annually per American Internet user.”).

regime eliminates the value created by the use of consumer information. There is no added benefit to entice consumers to bear the costs of opting in under the NPRM's regime and so we can expect consumers to continue to not opt in to allowing ISPs to utilize their information even when consumers are not actually concerned by such use.

Indeed, the opt-in model's costs are exacerbated here precisely because the benefits of opting in are not obvious to consumers. As platforms, ISPs cannot easily make clear to consumers how allowing use of consumer data will ultimately benefit consumers. And even if an ISP could demonstrate the benefit of the use of such data on a macro level, it would be unable to demonstrate to a *particular* customer how she will benefit individually from opting in. Targeted advertising is much more valuable to consumers than non-targeted advertising;³⁴ but when users are deciding whether to allow certain uses of the information that form the basis of this targeted advertising, they are likely not considering the fact that they will be served more irrelevant or "spammy" ads if they choose the purportedly privacy-enhancing option. In this way, the NPRM's opt-in model creates impediments to using data that will prove exceptionally difficult to surmount in practice.

Second, the NPRM inefficiently allocates costs between consumer groups. In terms of privacy preferences, there are essentially two distinct sets of consumers: (1) those who care greatly about specific privacy policies, and (2) those who do not – which is the vast majority. Consumers falling into the first category will invest the time to read, understand, and make an informed decision regarding the privacy policies with which they are presented. An opt-out regime places the burden on this set of consumers who, by revealed preference, value their privacy enough to expend resources to monitor it.

But the opt-in regime the NPRM proposes to establish flips this burden, placing it instead on consumers in the second category. These consumers have already demonstrated, by not opting out under existing ISP privacy policies, that they value privacy to a significantly lesser degree, declining to expend any time or resources to consider the topic, or that they do not view ISP use of their data

³⁴ See, e.g., Beales & Eisenach, *supra* note 22, at 10 ("There is substantial evidence that interest-based advertising increases advertising efficiency.").

for marketing purposes to be a concern. It is economically inefficient to place the burden on the much larger group of consumers who values the good at issue much less rather than on the small group that values the good highly. These inefficiencies are ultimately borne by consumers themselves in the form of higher prices.

Finally, the opt-in model creates negative externalities. Even assuming (against the evidence) a substantial percentage of consumers first takes the time to read and understand the privacy policy and then makes an efficient individual decision, these individually efficient decisions will still fail to reflect the very real social value of collecting and using information for better marketing. Such activities create large positive externalities – for which individual consumers will not adequately account in deciding whether to read and respond to privacy policies. This makes it all the more important for regulators to consider these economic benefits when designing the consumer-value maximizing rule.

Today's economy is largely built upon uses of valuable consumer information that allow firms to offer consumer benefits they could not otherwise.³⁵ This is particularly true on the Internet where content is a public good, meaning that one person can consume (or view) as much content as she wishes without meaningfully reducing the amount or availability of that content to another consumer, and is largely available free of charge.³⁶ Market economies tend to underproduce public goods, owing to the creator's inability to capture value for the good's creation. Using consumer information to generate other revenue streams, however, helps to alleviate this problem by allowing firms to internalize some of this value, thereby better aligning incentives. The advertising model, for instance, is widespread on the Internet today for exactly this reason. It allows consumers to continue receiving free or discounted content and services,

³⁵ See, e.g., Beales & Eisenach, *supra* note 22, at 5 ("As the [FTC's March 2012 report, *Protecting Consumer Privacy in an Era of Rapid Change*] recognizes, data collection and analysis play an essential role in the modern economy."); Cate & Staten, *supra* note 21, at 1 ("An 'opt-out' system sets the default rule to 'free information flow' and lets privacy-sensitive consumers remove their information from the pipeline. In contrast, an 'opt-out' system sets the default rule to 'no information flow,' thereby denying to the economy the very lifeblood on which it depends.").

³⁶ Beales & Eisenach, *supra* note 22, at 8.

and, because consumers are simultaneously sharing valuable information, allows firms to monetize by selling advertising space at a premium.

The opt-in regime exacerbates a fundamental dissociation between a user's opt-in calculus and the social value of using information. Specifically, even for that small minority of consumers that both (1) takes time to read and understand the privacy policy and (2) makes a conscious decision whether to opt in and allow their data to be used, there is a gap between the private gains and losses to the user and the effects upon society as a whole. In other words, there is an important externality at play in the user decision to share information. When the individual user selects which information to share it not only implicates the satisfaction and exercise of individual privacy preferences, but also the value that might be provided for *other* consumers, not to mention the retail price of the service and the effectiveness of the ads displayed. For instance, 75% of American consumers report they would decrease their online activity "a great deal" if they were forced to pay for services and content they receive for free today.³⁷

But self-interested, individual consumers generally do not take into account the impact of their decisions on others. No individual customer will believe her individual decision will have any material impact on service costs, but collectively those decisions will have a major impact. Individual users do not assess whether their opt-in decision might very well raise the costs of currently free (or discounted) content because the amount of information available for firms to use in serving ads directly implicates this favored ad-supported model.

Thus, the default rule matters greatly to achieving the consumer welfare-maximizing outcome. The opt-in regime's costs would distort the tradeoff consumers face: many consumers will simply stay with the default rule out of rational ignorance or inertia,³⁸ and even consumers who would otherwise benefit from opting in would likely fail to actually do so, because of the transactions costs and externalities. However, if all consumers individually elected never to allow their information to be used for marketing purposes (which may well be the rational choice given each individual's own tradeoffs, including the cost of

³⁷ See Zogby Poll, *supra* note 32.

³⁸ See Richard H. Thaler & Cass R. Sunstein, *Nudge* (Penguin Books 2009).

opting in), it would dramatically increase the costs for companies to offer low-priced and free content and services to everyone.

Accordingly, the opt-in model the NPRM proposes would significantly increase the rate of negative externalities because it would curtail the amount of information sharing that occurs in practice. These externalities, combined with the burdens to ISPs and the inefficient burden shifting between consumer groups, render the NPRM a very costly regime, indeed. As with any multi-sided market, these costs will not be confined to the ISP side of the market, but will ripple across the ecosystem, increasing costs to consumers as well.

C. Consumers Will Bear a Significant Share of the Costs of the NPRM's Burdensome Opt-in Regime

In declaring that its costly opt-in regime shall be implemented “at no cost to the consumer,”³⁹ the NPRM ignores the tremendous expenses it would introduce into the ecosystem and the simple reality that consumers would ultimately be forced to absorb many of these costs. In their most directly observable – and, for consumers, most painful – form, these costs will translate to increased retail prices for broadband services and to other related products and services that ISPs are currently able to provide at competitive prices (e.g., home security and energy efficiency products and services).⁴⁰ Because the NPRM eliminates important avenues for ISPs to earn revenues and increases ISPs' costs of communicating with their customers, broadband prices will invariably rise.

But the consumer harm is not limited to higher retail prices. Consumers will also be harmed indirectly, including by being subjected to a higher percentage of irrelevant advertisements. The NPRM would, further, dampen the innovation and experimentation that is a primary driver of economic value in today's information economy. This Section analyzes each of these categories of harm in turn.

1. The NPRM would raise retail broadband prices.

³⁹ See, e.g., NPRM ¶¶ 139, 144.

⁴⁰ In other words, in a world where the NPRM's opt-in regime is implemented the increased costs will result in higher prices to consumers than would otherwise be the case in the absence of an opt-in requirement.

The most tangible cost to consumers from the NPRM would be higher retail prices for broadband access, as compared to those that would prevail absent such regulation. The NPRM's approach would force ISPs to absorb significant costs and would foreclose opportunities to develop important revenue streams. In other words, it would increase operation costs for ISPs, leading to increased retail prices.

Specifically, the NPRM constrains opportunities for ISPs to earn additional revenues through first and third-party advertising. In the first instance, the NPRM curtails ISPs' abilities to market to their own customers. Today, if an ISP wanted to advertise a special but non-"communications-related" benefit to its customers, it could readily do so. Under the NPRM, however, the ISP would only be permitted to market to customers if those customers specifically (1) took time to read and understand the privacy policy, and then (2) opted in to this particular type of use. As discussed, there is no reason to expect any more than a very small percentage of customers would incur the transactions costs associated with reading the privacy policy in the first place, and even less reason to suspect a significant percentage of this small fraction of customers would then affirmatively choose to opt in, given the externalities the NPRM creates.

Further, the NPRM essentially forecloses ISPs' ability to engage with third parties for advertising opportunities. Again, consumers' rational decisions to spend their scarce time on more valuable endeavors means that few, if any, consumers would ever opt in to allowing their information to be used for marketing purposes. And the effect of shutting down such uses would be to foreclose ISPs from entering and competing in the market for third-party advertising.⁴¹

The propensity of ill-considered privacy regulation to distort competition is, in fact, well-documented. Both theoretical and empirical research demonstrates that privacy regulation can inhibit competition by increasing the

⁴¹ As Commissioner Pai explained in his dissent, the NPRM will inhibit the emerging competition offered by ISPs in the market for online advertising services, thereby "confer[ring] a windfall to those who are already winning." *See* Dissenting Statement of Commissioner Ajit Pai.

costs of entry, thereby disproportionately hindering smaller or newer entrants.⁴² The NPRM threatens to impose such anticompetitive harms, and, in doing so, increase retail prices consumers must pay. Moody's Investor Service, in fact, has recognized that the NPRM "has the potential to derail efforts by wireless carriers to cultivate mobile video advertising revenues," a market that "could lose relevance due to its higher cost to consumers and a potential for fewer content choices," were the NPRM's proposal to be implemented.⁴³

As such, the NPRM would significantly curtail ISPs' abilities to develop valuable revenue streams and would likely foreclose them from certain types of revenues altogether. These effects would translate to higher retail broadband (and other) prices for consumers. These costs would be passed on to consumers, in large part, owing to the interdependency of demand in multi-sided markets, like third-party advertising markets, where costs introduced on one side of the market cannot be confined to that side, alone.

2. The NPRM would impose numerous indirect consumer harms.

In addition to higher broadband prices, consumers would suffer numerous indirect costs stemming from the NPRM's destruction of several valuable consumer benefits.

Firms today frequently use consumer information for marketing purposes. This use is facilitated primarily by an opt-out model that allows firms more easily to obtain consent to use data for such purposes, while reserving opt-in

⁴² James Campbell, Avi Goldfarb, & Catherine Tucker, Privacy Regulation and Market Structure, 24 J. Econ. & Management Strategy 47 (2015); see also Julie Brill, The Intersection of Consumer Protection and Competition in the New World of Privacy, 7 Competition Pol'y Int'l 7, 19 (2011), https://www.ftc.gov/sites/default/files/documents/public_statements/intersection-consumer-protection-and-competition-new-world-privacy/110519cpi.pdf (recognizing "there may be a tipping point at which self-regulation [in privacy] turns anticompetitive"); Beales & Eisenach, *supra* note 22 (noting privacy regulations can inhibit competition); Randal C. Picker, Competition and Privacy in Web 2.0 and the Cloud, 103 Nw. L. Rev. 1, 10 (2008) ("How we implement privacy restrictions matters enormously, and indeed, the limits can sometimes have perverse consequences like undermining competition policy.").

⁴³ Moody's Investors Service, FCC's Broadband Privacy Proposal Credit Negative for Linear TV and Wireless Providers, at 2 (Mar. 14, 2016), <http://www.netcompetition.org/wp-content/uploads/FCC%E2%80%99s-broadband-privacy-proposal-credit-negative-for-linear-TV-and-wireless-providers.pdf>.

consent for particularly sensitive information and uses with potentially acute harms. And this model has yielded significant benefits to consumers. It has, for instance, provided users with more relevant content and advertisements and lower costs.

Scholars and regulators have long recognized that truthful, non-deceptive advertising benefits consumers and that restrictions on such advertising tend to do more harm than good.⁴⁴ Empirical evidence similarly demonstrates both that targeted advertising offers even greater consumer benefits than non-targeted advertising, and that restricting such advertising tends to inflict serious and widespread costs.⁴⁵ For instance, one study examining the effectiveness of behavioral advertising concluded that it was “more successful than standard run of network advertising, creating greater utility for consumers and clear appeal for advertisers.”⁴⁶ Another study analyzed the effects of the European Union’s Privacy and Electronic Communications Directive (2002/58/EC) (EU e-Privacy Directive or Directive) on advertising effectiveness and found that, after the

⁴⁴ See, e.g., R.S. Bond, J.J. Kwoka, J.J. Phelan, & I.T. Whitten, *Effects of Restrictions on Advertising and Commercial Practice in the Professions: The Case of Optometry*, FTC Bureau of Economics Staff Report (1980), <https://www.ftc.gov/sites/default/files/documents/reports/effects-restrictions-advertising-and-commercial-practice-professions-case-optometry/198009optometry.pdf>; William W. Jacobs, Brenda W. Doubrava, Robert P. Weaver, Douglas O. Stewart, & Eric L. Prah, *Improving Consumer Access to Legal Services: The Case for Removing Restrictions on Truthful Advertising*, FTC Staff Report (1984); Carolyn Cox & Susan Foster, *The Costs and Benefits of Occupational Regulation*, FTC Staff Report (1990), https://www.ftc.gov/system/files/documents/reports/costs-benefits-occupational-regulation/cox_foster_-_occupational_licensing.pdf; Robert H. Porter, *The Impact of Government Policy on the U.S. Cigarette Industry*, in Pauline Ippolito & D. Scheffman, eds., *Empirical Approaches to Consumer Protection* (Washington, D.C., Fed. Trade Comm’n, March 1986), <https://www.ftc.gov/sites/default/files/documents/reports/empirical-approaches-consumer-protection-economics/198404consumereconomics.pdf> (finding broadcast ban on cigarette advertising increased prices, even when other types of advertising (magazine and billboard) were permitted); see also J. Howard Beales, III, *What State Regulators Should Learn from FTC Experience in Regulating Advertising*, *J. of Public Policy & Marketing*, Vol. 10, No. 1 (1991), pp. 101-17.

⁴⁵ See Beales & Eisenach, *supra* note 22, at 7 (“There is substantial evidence that interest-based advertising increases advertising efficiency.”).

⁴⁶ J. Howard Beales, *The Value of Behavioral Advertising*, *Network Advertising Initiative*, at 3 (2010).

Directive took effect, “advertising effectiveness decreased on average by around 65 percent in Europe relative to the rest of the world.”⁴⁷

Yet another study evaluated the effect of the EU e-Privacy Directive on venture capital (VC) investment in online advertising companies.⁴⁸ That study concluded the Directive led to a significant decrease of such investment in the EU relative to the US and a \$249 million incremental decrease over about eight and one-half years. It further estimated these losses translated to approximately \$750 million to \$1 billion in losses in traditional R&D investments.⁴⁹

Despite the plethora of empirical work demonstrating that strict privacy regulations can introduce real and widespread costs, the NPRM does not account for any of these welfare losses. While the NPRM purports to recognize the value of behavioral advertising,⁵⁰ it affords this topic little discussion – and, even more problematically, ignores the practical reality that its opt-in model would effectively foreclose opportunities for ISPs to participate in the market for targeted advertising. The NPRM does acknowledge that consumers who want to continue receiving targeted ads would need to provide “separate consent” in the form of “advanced approval for the use of [their] data.”⁵¹ But it fails to consider that the costs of providing this separate consent would, in all likelihood, preclude most consumers from opting in.⁵² And it does not consider any other types of harm, such as reductions in R&D or VC investment, that such a change would likely trigger.

The NPRM’s refusal to consider these losses would impose serious consumer welfare losses. These losses are particularly unacceptable given they could be easily avoided or significantly mitigated were the NPRM to conduct a

⁴⁷ Avi Goldfarb & Catherine E. Tucker, Privacy Regulation and Online Advertising, 57 *Management Science* 57 (2010).

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ NPRM ¶ 12 (“For example, many consumers want targeted advertising that provides very useful information in a timely (sometimes immediate) manner. Nothing in this NPRM stops consumers from receiving targeted recommendations – or any other form of content they wish to consume.”).

⁵¹ NPRM ¶ 12.

⁵² See Beales & Muris, *supra* note 26, at 115.

rigorous analysis of the economic factors at work and to establish a regime that is responsive to the sensitivity and particular uses of data issue, rather than attempting to apply a very expensive and limited-use model as a panacea.

3. The NPRM would hamper innovation and experimentation.

The NPRM's myopic, singular focus on attempting to enhance privacy omits any consideration of the astounding consumer benefits derived from innovation and experimentation. Much of the innovation that routinely occurs in today's online ecosystem is a direct result of the very data uses the NPRM would curtail.⁵³ As such, the NPRM would have devastating consequences for innovation.

Empirical evidence has repeatedly demonstrated that even minor innovations can yield staggering consumer value. M.I.T. Professor Jerry Hausman's classic study, for instance, estimated that General Mills generated about \$66.8 million *per year* in additional consumer value, just by adding apple and cinnamon to its traditional Cheerios formulation.⁵⁴ Other studies found that an online edition of a newspaper generated a total welfare gain of \$45 million per year,⁵⁵ that direct broadcast satellites generated over \$5 billion in consumer welfare,⁵⁶ and that the minivan's introduction in the U.S. increased consumer welfare by \$2.8 billion between 1984 and 1988.⁵⁷ But empirical data also demonstrate that privacy regulations may inhibit the adoption and

⁵³ See Remarks of Joshua D. Wright, Commissioner, Fed. Trade Comm'n, How to Regulate the Internet of Things without Harming Its Future: Some Do's and Don'ts, before the U.S. Chamber of Commerce, Washington, D.C. (May 21, 2015), https://www.ftc.gov/system/files/documents/public_statements/644381/150521iotchamber.pdf.

⁵⁴ Jerry A. Hausman, Valuation of New Goods under Perfect and Imperfect Competition, *in* The Economics of New Goods (Timothy F. Bresnahan & Robert J. Gordon, eds., 1996).

⁵⁵ Matthew Gentzkow, Valuing New Goods in a Model with Complementarities: Online Newspapers, 97 *Am. Econ. Rev.* 713 (2007).

⁵⁶ Austan Goolsbee & Amil Petrin, The Consumer Gains from Direct Broadcast Satellites and the Competition with Cable TV, 72 *Econometrica* 351 (2004).

⁵⁷ Amil Petrin, Quantifying the Benefits of New Products: The Case of the Minivan, 110 *J. Pol. Econ.* 705 (2002).

implementation of valuable technologies and innovations.⁵⁸ The NPRM ignores these lessons, and, rather than engaging in a serious analysis of the tradeoffs it is making, would cut off numerous avenues for innovation and experimentation by severely limiting how and when ISPs could actually use data.

The NPRM's suppression of the amount of data available for ISPs and other firms to use would sharply curtail their ability to innovate and generate economic value. Consumers receive access to a tremendous amount of free (or heavily discounted) content and services precisely because of the various uses to which firms can put their data. The Internet is, today, teeming with free content – from social networks to search engines, from newspapers to blogs, and so on. To take one example, search engines can offer free search to users because they are able to monetize from the collection and use of user data. Hampering this monetization would inhibit search engines' abilities to innovate and offer new and better products and services; for instance, it could negatively impact their ability to find new ways of tailoring search results, as they have done by moving from simple hyperlinks to options such as universal results and direct responses.

In the ISP context, AT&T's Gigapower is a powerful example of how companies today can experiment and achieve enhanced consumer benefits through their products and new business models. Gigapower has a standard, set price to consumers, but offers a \$30 monthly discount to consumers who opt in

⁵⁸ See, e.g., Goldfarb & Tucker, *supra* note 47, (finding that the EU's Privacy Directive "restricted advertisers' ability to collect data on web users in order to target ad campaigns," and that display advertising became less effective as a result); Amalia R. Miller & Catherine E. Tucker, Privacy Protection and Technology Diffusion: The Case of Electronic Medical Records, 55 Management Sci. 1077 (2009) ("We find confirmation that privacy regulation over hospital medical disclosure is inhibiting adoption [of Electronic Medical Records] by 25 percent. Our estimates also suggest that there is a 33 percent reduction in software compatibility in states with privacy regulations. This suggests there could be a longer term impact from state privacy regulation when it comes to future integration efforts."). *But see* Catherine Tucker, Social Networks, Personalized Advertising, and Privacy Controls, MIT Sloan School of Management Working Paper 4851-10, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1694319 (finding that "when a social networking website allowed customers to choose how personally identifiable information about them is shared and used, there was no negative effect on advertising performance."). This study, however, is inapposite for two critical reasons: (1) the social network being studied, Facebook, dramatically simplified its privacy policy and provided *opt-out* consent; and (2) Facebook undertook these actions of its own initiative – meaning it was able to calibrate its response to best suit its users, in sharp contrast to the mandatory, blunt system the NPRM would implement.

to use of their information for tailored advertisements and other marketing purposes.⁵⁹ The vast majority of consumers select the latter option, clearly demonstrating that they receive more value from opting-in and receiving the discount on their broadband service than from refusing to opt in and withholding their data in the name of privacy. Further, because of positive externalities associated with the contribution of user data to the ecosystem, the gains to individual consumers understate the total social benefit. Remarkably, the NPRM questions whether this pro-competitive offering, which has been resoundingly embraced by the vast majority of AT&T broadband customers, should in fact be prohibited altogether.⁶⁰

Finally, the negative externalities the NPRM creates are again important to understanding its impact upon innovation. Consumers cannot properly value the potential benefits of innovation at the time they decide (assuming, against the odds, that they do decide) whether to opt in and allow use of their information. This is due, in part, to the fact that the benefits are simply unpredictable. Future innovations that flow from various uses of consumer information, and the new products, services, and business models these uses facilitate, are not always apparent in the present.⁶¹ Indeed, it is often the case that, at the time of collection,

⁵⁹ See U-verse with AT&T GigaPower Internet Preferences, AT&T, <https://www.att.com/esupport/article.html#!/u-verse-high-speed-internet/KM1011211>.

⁶⁰ Even as the NPRM acknowledges that a “substantial majority” of customers have embraced the program, it toys with the possibility that such a business model should be prohibited entirely. See NPRM ¶¶ 259-263. In dissent, Commissioner O’Rielly points to Gigapower as an example of innovation that would be harmed under NPRM’s proposal, describing it as “a popular program offered by a major provider that enables consumers to receive a discounted price for a premium service if they agree to allow the company to use their web browsing information to provide tailored ads.” See Dissenting Statement of Commissioner Michael O’Rielly. Commissioner O’Rielly goes on to note that the NPRM itself acknowledges that a “substantial majority” of consumers chose to participate in the program and receive the monthly discount and he questions the claim that these consumers do not fully appreciate the tradeoff they are making. *Id.*

⁶¹ See Ohlhausen, *supra* note 17 (“People continuously overvalue current conditions and over discount future benefits. . . . [A]n effective and transparent opt-in framework typically requires that companies know at the time of collection how they will use the collected information. Yet data, including non-sensitive data, often yields significant consumer benefits that could not be known at the time of collection.”); see also Wright, *supra* note 53; Software & Info. Indus. Assoc. (SIIA), Data-Driven Innovation A Guide for Policymakers: Understanding and Enabling the Economic and Social Value of Data, at 4-5 (2013), <http://www.sii.net/Portals/0/pdf/Policy/Data%20Driven%20Innovation/data-driven->

firms could not have predicted subsequent uses of consumer information that end up yielding significant consumer benefits. So consumers simply have no way of knowing at the time of their opt-in decision – nevermind internalizing in their cost calculus – the kind or magnitude of the benefits that may derive from allowing their information to be utilized. The NPRM, however, places very little – if any – value on such innovation and experimentation, and eviscerates economically the ability for firms to engage in these welfare-enhancing initiatives. While, by its nature, the value of innovation is never certain or predictable, it is assuredly significant and deserves far more weight than the scant consideration offered by the NPRM.

VI. Conclusions

The NPRM fails to provide substantial evidence that the benefits of its proposed rule exceed the costs. Indeed, the economic analysis presented here strongly suggests that consumers and competition would be reduced under the NPRM’s proposal.

As a threshold matter, consumers’ privacy interests are not better served under the NPRM than they are today. Consumers can – and those who care, already *do* – make informed decisions about whether to permit certain marketing uses of their data today. Thus, the only purported value of the NPRM, i.e., enhancing privacy, is essentially nonexistent as a practical matter.

Moreover, the NPRM’s one-size-fits-all regime fails to calibrate either to the sensitivity of the data at issue or to the propensity of the use at issue to cause consumer harm. It treats Social Security numbers just the same as email addresses and the selling of a consumer’s information to a third-party just the same as an ISP’s own use of that information (outside of two very narrow exceptions). It affords dramatically more weight to illusory privacy benefits than it does to the real and clear benefits a primarily opt-out regime offers. And it upends the current, predominate opt-out model without any consideration as to

innovation.pdf (“A second crucial principle is that policies must not be developed today which are based on a snapshot of current technology. Today’s dynamically evolving IT ecosystem is certain to be very different tomorrow. Policies should allow for the long-term evolution of IT in ways that cannot yet be predicted.”).

the economic costs and benefits different models offer to consumers, to firms, and to innovation. In doing so, the NPRM establishes a regime that would inflict significant direct consumer welfare losses, observable in higher prices for broadband and other services offered by ISPs, result in indirect consumer losses including a greater rate of irrelevant advertising and more expensive content and services throughout the ecosystem, and chill innovation and experimentation in the ecosystem.