



**THE FEDERAL TRADE COMMISSION HEARINGS ON
COMPETITION AND CONSUMER PROTECTION
IN THE 21ST CENTURY: CONSUMER PRIVACY,
COMMENT OF THE GLOBAL ANTITRUST INSTITUTE,
ANTONIN SCALIA LAW SCHOOL, GEORGE MASON UNIVERSITY**

Tad Lipsky

Antonin Scalia Law School,
George Mason University

Joshua D. Wright

Antonin Scalia Law School,
George Mason University

Douglas H. Ginsburg

U.S. Court of Appeals for the D.C. Circuit;
Antonin Scalia Law School, George Mason University

John M. Yun

Antonin Scalia Law School,
George Mason University

George Mason University Law & Economics Research Paper Series

19-05

This paper is available on the Social Science Research Network
at ssrn.com/abstract=3340037

**The Federal Trade Commission Hearings on Competition and Consumer Protection
in the 21st Century: Consumer Privacy,
Comment of the Global Antitrust Institute,
Antonin Scalia Law School, George Mason University**

February 19, 2019

This comment is submitted in response to the United States Federal Trade Commission (“FTC”) hearing on Consumer Privacy as part of the Hearings on Competition and Consumer Protection in the 21st Century. We submit this comment based upon our extensive experience and expertise in consumer protection, antitrust law, and economics.¹ As an organization committed to promoting sound economic analysis as the foundation of antitrust enforcement and competition policy, the Global Antitrust Institute commends the FTC for holding these hearings and for inviting discussion concerning a range of important topics.

¹ The Global Antitrust Institute (GAI), a division of the Antonin Scalia Law School at George Mason University (Scalia Law), is a leading international platform for economic education and research that focuses upon the legal and economic analysis of key antitrust issues confronting competition agencies and courts around the world. University Professor Joshua D. Wright, Ph.D. (economics), is the Executive Director of the GAI and a former U.S. Federal Trade Commissioner. John M. Yun, Ph.D. (economics), is the Director of Economic Education, Associate Professor of Law at Scalia Law, and former Acting Deputy Assistant Director in the Bureau of Economics, Antitrust Division, at the U.S. Federal Trade Commission. Professor of Law Douglas H. Ginsburg is a Senior Judge, United States Court of Appeals for the District of Columbia Circuit, Chairman of the GAI’s International Board of Advisors, and a former Assistant Attorney General in charge of the Antitrust Division of the U.S. Department of Justice. Tad Lipsky is the Director of GAI’s Competition Advocacy Program, Adjunct Professor at Scalia Law, a former Deputy Assistant Attorney General for Antitrust and a former Acting Director, Bureau of Competition, U.S. Federal Trade Commission. The GAI gratefully acknowledges substantial assistance in the preparation of this Comment provided by Scalia Law students Jake Philipoom and Keith Holleran.

The FTC's unfairness authority relies upon a cost-benefit analysis, which explicitly requires weighing consumer harm against consumer benefits.² Section 5(n) of the FTC Act dictates that a practice may be condemned as unfair only if it causes or is likely to cause "[1] substantial injury to consumers [2] which is not reasonably avoidable by consumers themselves and [3] not outweighed by countervailing benefits to consumers or to competition."³ This explicit command to make consumer welfare tradeoffs suggests a natural role for economics in identifying unfair practices.⁴ This comment argues that further expanding the use of economic analysis in unfairness cases will improve outcomes for consumers.

The demonstration of consumer harm required by the statutory framework differs from the FTC's parallel authority to prevent deception.⁵ Both deception and unfairness analysis are tethered to consumer injury, but deception analysis does not explicitly require weighing of harms and benefits that arise from allegedly deceptive conduct.⁶ Rather, in deception analysis the FTC may presume that a practice has a net-negative effect on consumer welfare when certain conditions are met.⁷ These

² 15 U.S.C. § 45(n) (2012).

³ *Id.*

⁴ See Michael R. Baye & Joshua D. Wright, *How to Economize Consumer Protection*, ANTITRUST SOURCE (Feb. 2018), <https://ssrn.com/abstract=3137122>.

⁵ See *id.*; J. Howard Beales, *The FTC's Use of Unfairness Authority: Its Rise, Fall, and Resurrection*, FED. TRADE COMM'N (May 30, 2003), <https://www.ftc.gov/public-statements/2003/05/ftcs-use-unfairness-authority-its-rise-fall-and-resurrection>.

⁶ See Baye & Wright, *supra* note 4; Beales, *supra* note 5.

⁷ See Baye & Wright, *supra* note 4.

conditions, such as the requirement that misleading statements be “material,” are used as proxies to identify situations where consumer harms likely outweigh consumer benefits.⁸ In contrast, unfairness analysis does not rely on presumptions.⁹ It is analogous to antitrust law’s rule of reason, where the harms and benefits are weighed against each other directly considering all available evidence.¹⁰

The FTC’s enforcement efforts against unfairness have had a rocky history.¹¹ The original statutory grant of authority did not give any guidance on what acts could or should be deemed unfair. Prior to the 1980s, the FTC controversially used its unfairness authority to proscribe acts that it viewed as “immoral, unethical, oppressive, or unscrupulous,” or contrary to “public policy,” in addition to those that caused substantial injury.¹² During this time, commentators ranging from Richard Posner to Ralph Nader were highly critical of the FTC’s performance.¹³ The FTC’s broad reading of its unfairness authority culminated in the notorious “Kid Vid” rulemaking that proposed to ban advertising to children.¹⁴ Kid Vid provoked a major backlash. The

⁸ See *id.*; Beales, *supra* note 5 (“The criteria for deception are best understood as they seek to identify a set of cases that would pass a benefit/cost test.”).

⁹ See Baye & Wright, *supra* note 4.

¹⁰ Baye & Wright, *supra* note 4; Beales, *supra* note 5.

¹¹ See generally Beales, *supra* note 5.

¹² See *id.*

¹³ See, e.g., EDWARD FINCH COX ET AL., THE NADER REPORT ON THE FEDERAL TRADE COMMISSION (1969); Richard A. Posner, *The Federal Trade Commission*, 37 U. CHI. L. REV. 47 (1969).

¹⁴ See William MacLeod & Judith Oldham, *Kid-Vid Revisited: Important Lessons for the Childhood Obesity Debate*, 18 ANTITRUST 31 (2004); J. Howard Beales, *Advertising to Kids and the FTC: A Regulatory Retrospective That Advises the Present*, FED. TRADE COMM’N (Mar. 2, 2004), <https://www.ftc.gov/public-statements/2004/03/advertising-kids-and-ftc-regulatory-retrospective-advises-present>; Timothy J. Muris, *The Federal Trade Commission and the Future Development of U.S. Consumer Protection Policy*,

press labeled the FTC the “national nanny.”¹⁵ Congress allowed the FTC’s funding to lapse for several days, and then passed a law restricting its authority.¹⁶

The FTC responded by rethinking its approach to unfairness. It decided to move away from amorphous factors such as immorality and public policy and instead root its analysis in harm to consumers.¹⁷ What emerged was the now statutory three-part test, which balances consumer benefits and consumer harms from any challenged practice.¹⁸ This new, economically sound test put unfairness on a surer legal and economic footing, reducing the chance that the mistakes of the 1970s would be repeated. Still, the FTC rarely exercised its revamped unfairness authority during the 1980s and 1990s.¹⁹ Since then, the FTC has found it a useful framework for attacking trade practices that harm consumers without deceiving them.²⁰ Examples include failures of data security, failures to adequately disclose important information, and privacy violations.²¹

Remarks at the Aspen Summit: Cyberspace and the American Dream (Aug. 19, 2003), <https://www.ftc.gov/public-statements/2003/08/federal-trade-commission-and-future-development-us-consumer-protection>.

¹⁵ Editorial, *The FTC as National Nanny*, WASH. POST, Mar. 1, 1978, at A22.

¹⁶ Beales, *supra* note 14.

¹⁷ Beales, *supra* note 5.

¹⁸ The test was first articulated in a policy statement, which proclaimed that “[u]njustified consumer injury is the primary focus of the FTC Act.” FED. TRADE COMM’N, COMMISSION STATEMENT OF POLICY ON THE SCOPE OF THE CONSUMER UNFAIRNESS JURISDICTION (1980), <https://www.ftc.gov/public-statements/1980/12/ftc-policy-statement-unfairness>. The new unfairness test was codified in 1994. *See* 15 U.S.C. § 45(n) (2012).

¹⁹ Beales, *supra* note 5.

²⁰ *See id.*

²¹ *See, e.g., BJ’s Wholesale Club, Inc.*, FED. TRADE COMM’N (Sept. 23, 2005), <https://www.ftc.gov/enforcement/cases-proceedings/042-3160/bjs-wholesale-club-inc-matter> (data security); *Jesta Digital, LLC*, FED. TRADE COMM’N (Aug. 21, 2013), <https://www.ftc.gov/enforcement/cases-proceedings/112-3187/jesta-digital-llc-also-dba-jamster> (nondisclosure); *Emp Media Inc. (MyEx.com)*, FED.

The rise of digital platforms has increased the complexity of the tradeoffs required in unfairness analysis, especially in nondisclosure and privacy cases.²² This development underscores the need for a careful economic analysis of the tradeoffs. Section I of this comment discusses how the use of platform economics can deepen the analysis of unfairness in nondisclosure cases. Section II considers how economic analysis can guide privacy enforcement toward outcomes calculated to improve outcomes for consumers.

I. Failures to Disclose

Failures to disclose have long been an important subset of unfairness cases.²³ Typical unfair nondisclosures include the failure to warn consumers of the dangers associated with a product,²⁴ and the failure to disclose charges that would be incurred.²⁵ In many of these cases, the costs of the required disclosure would be negligible compared to the substantial injury that consumers suffered.²⁶ For example, in

TRADE COMM'N (June 22, 2018), <https://www.ftc.gov/enforcement/cases-proceedings/162-3052/emp-media-inc-myexcom> (privacy).

²² See James C. Cooper & Joshua D. Wright, *The Missing Role of Economics in FTC Privacy Policy*, in CAMBRIDGE HANDBOOK OF CONSUMER PRIVACY (Jules Polonetsky et al., eds., 2017); Joshua D. Wright & John M. Yun, *Stop Chug-a-lug-a-lugin 5 Miles an Hour on Your International Harvester: How Modern Economics Brings the FTC's Unfairness Analysis up to Speed with Digital Platforms*, 83 GEO. WASH. L. REV. 2130 (2015).

²³ See Wright & Yun, *supra* note 22.

²⁴ See, e.g., *Int'l Harvester Co.*, 104 F.T.C. 949 (1984).

²⁵ See, e.g., *Jesta Digital, LLC*, FED. TRADE COMM'N (Aug. 21, 2013), <https://www.ftc.gov/enforcement/cases-proceedings/112-3187/jesta-digital-llc-also-dba-jamster>.

²⁶ In cases alleging that a practice is "likely to cause" substantial injury, the magnitude of the potential injury must be discounted by its probability of occurring. *LabMD, Inc.*, FTC Docket No. 9357, 2016 FTC LEXIS 128, at *59-62, *rev'd on other grounds*, *LabMD, Inc. v. FTC*, 891 F.3d 1286 (11th Cir. 2018).

International Harvester, the respondent tractor company became aware that removing the fuel cap from its tractors while hot or running caused a risk of serious injury, but failed to adequately disclose this information to consumers.²⁷ This failure caused physical injury and even death to some tractor owners.²⁸ The costs of disclosure (that is, the benefits of non-disclosure) were easily outweighed by the magnitude of the injury.²⁹ The FTC rightfully condemned the failure to disclose the risk as unfair.³⁰

A. Platform Economics and Unfairness Analysis

Disclosure cases dealing with digital platforms present special challenges.³¹ Platforms facilitate direct interaction between two or more groups, known as “sides” of the platform.³² One familiar example is Google’s Android, a platform that connects app developers, hardware manufacturers, and consumers. App developers affiliate themselves with the platform by placing their apps in the Google Play Store and maintaining a reputation with users. Hardware manufacturers such as LG and Samsung affiliate themselves with the platform by creating Android phones, and consumers affiliate themselves by purchasing these phones. Android allows app

²⁷ *Int’l Harvester*, 104 F.T.C. at 1051-55.

²⁸ *Id.*

²⁹ *Id.* at 1064-65. (“The principal tradeoff to be considered in this analysis is that involving compliance costs. More information may generally be helpful to consumers, but all such information can be produced only by incurring costs that are ultimately born as higher prices by those same consumers.”).

³⁰ *Id.* at 1066.

³¹ See Wright & Yun, *supra* note 22.

³² *Id.* at 2135; Andrei Hagiu & Julian Wright, *Multi-Sided Platforms*, 43 INT’L J. INDUS. ECON. 162, 163 (2015).

developers to get their apps onto LG and Samsung phones, and allows consumers to use these phones and apps.

The complex relationships among different sides of the platform force the platform to balance the needs of all sides when making changes in design, functionality, or pricing.³³ This may lead to counterintuitive pricing incentives.³⁴ Even though the Android ecosystem and its Play Store are costly to maintain, Google charges nothing to consumers or hardware manufacturers.³⁵ Instead, Google chooses to subsidize consumers and manufacturers by charging a transaction fee to app developers.³⁶ Perhaps even more important, by lowering costs to hardware manufacturers, Google encourages the wide distribution of mobile devices, which increases the total amount of online search and media streaming conducted by users. Google monetizes this through the sale of advertising in other Google properties.

If Google were to start charging consumers a monthly fee to access Android or the Play Store, sales of Android phones and Android apps would decline. Each of the three sides of the platform would suffer, and many would exit the platform entirely. Of course, if Google instead drastically increased the price to app developers, a similar result would obtain. Developers would flee the ecosystem, in turn harming hardware

³³ Wright & Yun, *supra* note 22, at 2137.

³⁴ *Id.*

³⁵ Bogdan Petrovan, *How Does Google Make Money from Android?*, ANDROID AUTH. (Jan. 22, 2016), <https://www.androidauthority.com/how-does-google-make-money-from-android-669008/>.

³⁶ *Id.*

suppliers and end users. These interdependencies and complex incentives differentiate platform markets from traditional markets.³⁷ Traditional businesses do not need to consider relationships between their customers and input suppliers because there are no such relationships.³⁸

Just as platform owners need to account for welfare on all sides of the platform when making design and pricing decisions, so too must consumer protection authorities consider welfare on all sides of the platform when making enforcement decisions.³⁹ A myopic focus on harms and benefits to just one side would distort the tradeoff necessary to determine unfairness. Antitrust law has embraced this new learning about platform economics; the Supreme Court recently held that antitrust courts must consider competitive effects on all sides of a platform in a rule of reason case.⁴⁰ Consumer protection law should embrace platform economics as well.

B. Platform Economics in Action: The FTC's Apple In-App Purchases Consent

To see the importance of applying platform economics to unfairness analysis, consider the FTC's consent order condemning Apple's disclosures as inadequate and hence unfair.⁴¹ In that case, the FTC challenged a feature of Apple's iOS mobile operating system intended to improve the ease of making in-app purchases.⁴² To

³⁷ Wright & Yun, *supra* note 22, at 2137-38.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Ohio v. American Express Co.*, 138 S. Ct. 2274 (2018). *See also* Wright & Yun, *supra* note 22, at 2138-39.

⁴¹ *Apple Inc.*, FTC File No. 112-3108, 2014 WL 253519 (Jan. 15, 2014).

⁴² *Id.*

streamline the user experience, iOS was designed to cache a user's password for 15 minutes after her initial purchase.⁴³ During that 15 minutes, the user could make purchases without re-entering her password.⁴⁴ Users were not notified about this feature.⁴⁵ Some parents purchased games for their children and allowed them to play unsupervised.⁴⁶ For 15 minutes the child was then able to make in-app purchases without parental knowledge, which sometimes resulted in unexpected charges to the parent.⁴⁷

The Commission analyzed the challenged practice as simple unauthorized billing.⁴⁸ It relied upon cases such as *Crescent Publishing*, where a website offered users a free trial, but neglected to mention that users would be automatically charged subscription fees once the free trial ended.⁴⁹ The Commission's approach did not consider the difference between Apple's design choices and simple unauthorized billing, leading it to ignore the benefits of nondisclosure to users of the platform.⁵⁰

More specifically, the FTC failed to appreciate that Apple's choice not to display a pop-up notifying users about the 15 minute window was part of its broader effort to

⁴³ *Id.* at *1-3 (complaint).

⁴⁴ *Id.*

⁴⁵ *Id.* at *3.

⁴⁶ *Id.* at *4-5.

⁴⁷ *Apple*, 2014 WL 253519, at *5.

⁴⁸ *See id.* at *25 & n.3 (statement of Chairwoman Edith Ramirez and Commissioner Julie Brill).

⁴⁹ *Id.*; *FTC v. Crescent Publ'g Grp.*, 129 F. Supp. 2d 311, 322 (S.D.N.Y. 2001).

⁵⁰ *See Wright & Yun, supra* note 22, at 2150-53.

streamline its interface, increasing welfare for groups on all sides of the platform.⁵¹ Apple tries to optimize the user experience, and apparently made the judgment that pop-up notifications detract from that experience.⁵² Of course, unexpected charges also detract from the experience. Because the iOS ecosystem is a platform that connects app developers, users, and Apple itself as the device manufacturer, any negative effect on the user experience will also negatively affect device sales and app sales. Apple has the full incentive to balance the benefits and harms of the additional notification without regulatory intervention.⁵³ That it erred on the side of nondisclosure makes sense given the evidence—namely, those adversely affected were a miniscule fraction of the Apple device users who benefitted from the streamlined experience.⁵⁴

As then-Commissioner Wright pointed out in dissent, under the FTC Act the Commission bears the burden of “demonstrating that any consumer injury arising from [the] allegedly unfair acts or practices exceeds the countervailing benefits to consumers and competition.”⁵⁵ Carrying that burden in *Apple* required a comparison of consumer welfare in the actual world and consumer welfare in a counterfactual world where the proposed disclosure was made.⁵⁶ A proper comparison would account for benefits

⁵¹*Id.*, at 2150-51.

⁵² *Apple*, 2014 WL 253519, at *7 (dissenting statement of Commissioner Joshua D. Wright).

⁵³ *Id.*, at *14.

⁵⁴ *Id.* at *12-13.

⁵⁵ *Id.* at 13; 15 U.S.C. 45(n) (2012).

⁵⁶ *Apple*, 2014 WL 253519, at *13 (dissenting statement of Commissioner Joshua D. Wright); Baye & Wright, *supra* note 4, at 14.

foregone by the entire platform in a counterfactual scenario, since the entire platform would be affected by the design change.⁵⁷ The Commission made no attempt to estimate the benefits to consumers and competition that would be foregone by making the proposed disclosure, instead asserting without empirical evidence that such benefits would be “*de minimis*.”⁵⁸ This approach effectively begs the question whether the statutory element is met, and substitutes the Commission’s judgment for Apple’s on an important platform design choice.⁵⁹

Micromanaging platform design choices is likely to harm consumers more than it helps them. Even a modicum of regulatory humility counsels against it. In disclosure cases involving platforms, the benefits of nondisclosure to the entire platform may well outweigh the costs. The FTC should incorporate platform economics into its thinking and give full weight to these benefits.

II. Privacy Enforcement & Unfairness Analysis

As mentioned above, the FTC also uses its unfairness authority to regulate the protection of consumer privacy.⁶⁰ An increased role for economics would be beneficial in this area as well. Data is a valuable commodity in the information age, and businesses routinely use collected data in ways that both benefit and harm consumers.⁶¹

⁵⁷ See *Apple*, 2014 WL 253519, at *13-14 (dissenting statement of Commissioner Joshua D. Wright)

⁵⁸ See *id.*, at *27 (statement of Chairwoman Edith Ramirez and Commissioner Julie Brill).

⁵⁹ See *id.*, at *13-14 (dissenting statement of Commissioner Joshua D. Wright).

⁶⁰ See James C. Cooper & Joshua D. Wright, *The Missing Role of Economics in FTC Privacy Policy*, in CAMBRIDGE HANDBOOK OF CONSUMER PRIVACY (Jules Polonetsky et al., eds., 2017).

⁶¹ See *id.*

On the positive side, data use creates efficiencies by improving the relevance of advertising and marketing, facilitating innovation and competition, and alleviating moral hazard and adverse selection problems.⁶² The collection and use of consumer data can also, however, impinge upon consumers' sense of dignity, autonomy, or seclusion.⁶³ Analyzing the fairness of how data is used will often involve difficult tradeoffs, and rigorous economic analysis should play a central role.⁶⁴

To see the dangers of neglecting economic analysis in privacy enforcement, consider the case of the digital messaging platform WhatsApp.⁶⁵ After Facebook acquired WhatsApp in 2014, the Bureau of Consumer Protection warned WhatsApp that any change in its use of consumer data without affirmative consumer consent could be considered unfair.⁶⁶ This caution was not backed by any cost-benefit analysis of an affirmative consent requirement; it relied instead upon an earlier consent decree with Facebook concerning only a failure to notify users about changes in its privacy policy.⁶⁷ Without economic analysis of the relative costs and benefits of notice and affirmative

⁶² Cooper & Wright, *supra* note 60.

⁶³ *Id.*

⁶⁴ *See id.*

⁶⁵ *See* James C. Cooper, *The WhatsApp Privacy Policy Change: No Cause for Alarm*, FORBES (Sept. 7, 2016), <https://www.forbes.com/sites/jamesccooper1/2016/09/07/the-whatsapp-privacy-policy-change-no-cause-for-alarm/#46429ad6992a>

⁶⁶ *See id.*; Letter from Jessica L. Rich, Director of the Federal Trade Commission Bureau of Consumer Protection, to Erin Egan, Chief Privacy Officer, Facebook, and to Anne Hoge, General Counsel, WhatsApp Inc., FED. TRADE COMM'N (Apr. 10, 2014), <https://www.ftc.gov/public-statements/2014/04/letter-jessica-l-rich-director-federal-trade-commission-bureau-consumer>.

⁶⁷ Cooper, *supra* note 65.

consent requirements, there is no way to know whether this guidance benefitted WhatsApp users.

The first step in any case alleging unfair data practices should be a precise identification of the consumer injury. This should go beyond a simple observation that consumer data was collected, shared, or used; instead, the FTC should specify the ways in which the collection, use, or sharing of data caused actual harm.⁶⁸ For example, publicizing sensitive health information would threaten individuals' sense of dignity, and sharing location data with law enforcement may threaten individuals' sense of autonomy. Sharing anonymized data about web traffic would not raise either of these concerns.⁶⁹ Being precise about the privacy interests involved will help create a more lucid picture of the injury threatened by the challenged practice.

The FTC should also attempt to quantify the benefits and harms arising from the particular use of data it is challenging.⁷⁰ In measuring consumer injury, revealed preferences will provide a more appropriate benchmark than consumers' stated preferences. A growing body of literature suggests that consumers' stated valuations of privacy far exceed their willingness to pay—a phenomenon dubbed the “privacy

⁶⁸ See Cooper & Wright, *supra* note 60.

⁶⁹ Cf. Benjamin Wittes & Jodie C. Liu, *The Privacy Paradox: The Privacy Benefits of Privacy Threats*, CTR. FOR TECH. INNOVATION AT BROOKINGS (May 2015), https://www.brookings.edu/wp-content/uploads/2016/06/Wittes-and-Liu_Privacy-paradox_v10.pdf. (noting that individuals are more comfortable sharing embarrassing personal information with computer algorithms than humans).

⁷⁰ Cooper & Wright, *supra* note 60.

paradox.”⁷¹ The FTC, with its first-rate staff of economists and its subpoena power under Section 6(b), has the capacity to add to this important research while at the same time informing its privacy enforcement decisions.⁷²

Thus far, the FTC’s research on privacy issues has primarily taken the form of workshops soliciting input from industry, academics, and advocacy groups.⁷³ These workshops are a good start, but the FTC should go a step further and conduct independent empirical research.⁷⁴ Gaining a clearer picture of the magnitude of benefits and harms from data collection and use will enable the FTC to conduct the required weighing with more confidence that its enforcement is beneficial to consumers.

Conclusion

Economics is a natural lodestar for unfairness analysis, especially given the explicit statutory command to weigh costs and benefits. Two concrete ways in which the FTC can use economics to improve its approach to unfairness are, first, incorporating platform economics into nondisclosure cases and, second, using the

⁷¹ See e.g., Lior Jacob Strahilevitz & Matthew B. Kugler, *Is Privacy Policy Language Irrelevant to Consumers?*, 45 J. LEGAL STUD. 569 (2016) (finding consumer willingness to pay to prevent email scanning “quite limited”); Scott Savage & Donald M. Waldman, *The Value of Online Privacy* (2013), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2341311 (finding limited willingness to pay to conceal location, browser history, and text messages from third parties). See also Cooper & Wright, *supra* note 60.

⁷² See Cooper & Wright, *supra* note 60.

⁷³ See *id.*

⁷⁴ See *id.*

Bureau of Economics' talent and resources the better to understand the benefits and harms that flow from collection, use, and sharing of consumer data.