

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Protecting the Privacy of)	
Customers of Broadband)	WC Docket No. 16-106
and Other)	
Telecommunications Services)	
)	

COMMENTS OF THE CENTER FOR DIGITAL DEMOCRACY

May 27, 2016

The Center for Digital Democracy (CDD), a nonprofit organization representing the interests of consumers in the digital marketplace, strongly supports the Federal Communication Commission’s (FCC) proposal to empower individuals to make effective decisions regarding their privacy on broadband networks. CDD is well-known for its consumer-protection work, especially in monitoring the impact of commercial data and digital marketing practices on privacy. Over the last quarter of century, we have played a leading role at the Federal Trade Commission (FTC) in such areas as the enactment and recent enhancement of the Children’s Online Privacy Protection Act (COPPA); the FTC’s initiative involving online behavioral advertising (OBA); its analysis of the data-broker industry and cross-device tracking of consumers; and the agency’s consent decrees involving both Google and Facebook. CDD is also involved in policymaking focused on how data-protection policies for consumers are necessary in order to promote global commerce and trade in the digital marketplace.

Broadband Internet access service (BIAS) plays a powerful and distinctive role in the commercial digital media marketplace, requiring precisely the set of sensible safeguards offered by the Notice of Proposed Rulemaking (NPRM). CDD believes it is entirely necessary and consistent with the Communications Act that the commission extend longstanding consumer-protection policies for the telephone network into the

modern broadband context. The role of the network in the broadband marketplace has a distinct purpose compared to so-called “edge” content providers: to facilitate a fairly managed and efficient connection between the subscriber/consumer and the content and/or services of their choice. Given their network-management role, BIAS providers have unique capabilities in terms of monitoring the communications and activities of their subscribers, enabling the capture and use of an extensive array of personal and other consumer information. Positioned by necessity at the center of subscribers’ wireline or wireless broadband use, and holding a “digital key” that can help analyze much of their users’ digitally connected behaviors, BIAS providers have unlimited opportunities to influence the decisions consumers make via data-collection-related applications and services.¹

In the following comments, CDD will respond to a number of the commission’s questions, and also propose several recommendations, including those related to definitional issues and so-called “pay-for-privacy” discounting.

I. CDD commends the commission for its clear and thoughtful analysis of the broadband privacy problem, including the urgent need for consumer protection rules

It is absolutely correct that, as the commission notes, the “current privacy regime ... does not now comprehensively apply the traditional principles to these 21st Century telecommunications services provided by broadband networks.”² Consumers today

¹ While some studies claim that encryption serves as an effective safeguard against BIAS providers’ intrusive monitoring, these studies fail to examine how the digital marketplace actually operates, where even modest observations of a consumer can be leveraged to gain additional data. There are multiple ways to take advantage of subtle communications, through various forms of “engagement,” as well as techniques such as “look-alike” modeling that use bits of data to create consumer-targeting profiles. See, for example, LiveRamp, “Look-alike Modeling: The What, Why, and How,” <http://liveramp.com/blog/look-alike-modeling-the-what-why-and-how/>; Krux, “Lookalikes,” <http://www.krux.com/data-management-platform-solutions/lookalikes/>; IAB, “Standards, Guidelines & Best Practices: Data,” <http://www.iab.com/guidelines/?topic=data/>.

² Federal Communications Commission, “FCC Releases Proposed Rules to Protect Broadband Consumer Privacy,” 1 Apr. 2016, <https://www.fcc.gov/document/fcc-releases-proposed-rules-protect-broadband-consumer-privacy>.

confront a far-reaching and largely invisible data-gathering apparatus that tracks and analyzes their every move online. For example, as the FTC has acknowledged, the growth of cross-device tracking, enabling the identification of a particular consumer's use of personal computers, mobile phones, tablets, and increasingly even television, and combining multiple sources of data for the development of a targeting profile, illustrates how recent advances in digital data collection pose growing threats to consumer privacy.³ Indeed, the journal of the Association of National Advertisers explained just last month, "cross-device marketing ... allows unprecedented access to individual consumers via personal or shared household devices. ... Data-driven cross-device marketers gain exclusive access to a slew of advantageous marketing enhancements, including consistent messaging across all devices" Leading BIAS providers promise such cross-device targeting capabilities.⁴

Lacking the ability to enact regulations to protect privacy (except for children 12 and under), the FTC has been powerless to ensure consumer protection from cross-device tracking practices, let alone from the growing myriad of practices that gather consumer data from social media, mobile app, online video usage, programmatic targeting, and

³ Few consumers would know that online cookies are linked with persistent mobile identifiers and via other techniques. See, for example, "Conversant Unveils Findings of Consumer Cross-Device Matching Accuracy Study," 7 Apr. 2016, <http://www.conversantmedia.com/press-release/conversant-unveils-findings-consumer-cross-device-matching-accuracy-study>; Allison Schiff, "2016 Edition: A Marketer's Guide To Cross-Device Identity," Ad Exchanger, 29 Feb. 2016, <http://adexchanger.com/data-exchanges/2016-edition-marketers-guide-cross-device-identity/>.

⁴ The ANA article further explains that "Data Science and marketing technology facilitate marketers' ability to link unique consumer IDs across multiple devices and form a more complete view of an individual consumer in the process." Additional advantages include "full control over frequency of message, amplified reach, enhanced insight into the channels that influence specific consumer actions, and personalized marketing." Gar Smyth, Merrily McGugan and Priti Ohri, "It's Time to Double Down on Data," Association of National Advertisers, Apr. 2016, personal copy. For example, as Mike Welch, head of strategy and product at AT&T AdWorks, explained last year, "The industry has been talking about cross-screen for years, and the screen that's always been conspicuously absent is the TV screen. ... For the first time, certainly at scale, we're now able to tie a specific target household on TV with the mobile devices associated with that same target household." Quoted in Tim Baysinger, "AT&T Tests Cross-Screen Advertising With AdWorks," *Adweek*, 9 Nov. 2016, <http://www.adweek.com/news/advertising-branding/att-adworks-tests-cross-screen-advertising-168033>.

many other practices.⁵ Without the authority to issue regulations on privacy-related matters connected to consumer financial services, for example, the FTC has been forced to rely on its Section 5 authority related to unfair and deceptive practices. In practical terms, this has enabled the digital-data industry to recognize that there are no real constraints to their rapidly expanding collection, analysis, and use of consumer data.⁶

The FTC has long recognized that its inability to issue regulations has placed the agency at a serious disadvantage, and has called for the enactment of new regulatory authority. For example, as former FTC Chairman Jon Leibowitz testified before Congress in 2009, in order for the agency “to perform a greater and more effective role protecting consumers ... changes in the law and additional authority to promulgate needed rules ...” are required.⁷ The data industry was able to scuttle the proposal backed by the FTC, lawmakers, and the Administration that would have given it greater ability to deal with contemporary data-collection practices.⁸

⁵ Oracle, “Data Management Platform: ID Graph,” <https://www.oracle.com/marketingcloud/products/data-management-platform/id-graph.html>.

⁶ Purposefully oblique and disingenuous statements in privacy policies have served as a domestic “privacy shield” for much of the digital data industry, disarming the ability of the FTC to do much to protect consumers.

⁷ Jon Leibowitz, “Prepared Statement of the Federal Trade Commission On ‘Leveraging FTC Resources To Protect Consumers of Financial Services and Promote Competition,’” Federal Trade Commission, 31 Mar. 2009, <https://www.ftc.gov/public-statements/2009/03/prepared-statement-federal-trade-commission-leveraging-ftc-resources>;

⁸ While former Chairman Leibowitz’s testimony was focused on financial services, the debate over an amendment proposed for the Dodd-Frank legislation was about enabling the FTC to have greater rulemaking capability. See, for example, “Prepared Statement of the Federal Trade Commission on ‘Leveraging FTC Resources to Protect Consumers of Financial Services and Promote Competition.’ Before the Subcommittee on Financial Services and General Government of the Committee on Appropriations, United States House of Representatives,” 31 Mar. 2009, <https://www.ftc.gov/public-statements/2009/03/prepared-statement-federal-trade-commission-leveraging-ftc-resources>. “... [T]he language would empower the FTC to impose civil penalties on companies that are first-time offenders and make it easier for the agency to concoct new rules. The law, supported by FTC Chairman Jon Leibowitz, would also invest the agency with the power to independently litigate civil penalty cases rather than going through the Department of Justice.” “Another Federal Bludgeon,” *Wall Street Journal*, 15 Dec. 2009, <http://www.wsj.com/articles/SB10001424052748703932904574511532397544924>; the digital data collection industry worked to defeat the proposal: Kate Kaye, “Ad Industry Fights to Stop Stronger FTC and Wins—For Now,” *ClickZ*, 28 June 2010, <https://www.clickz.com/clickz/news/1721880/ad-industry-fights-stop-stronger-ftc-wins-for-now>. For additional examples of Chairman Leibowitz’s support for stronger FTC rules, see Sonia Pfaffenroth and Asim Varma, “FTC Seeks Enhanced Powers,” *Seller Beware*, 16 Nov. 2009,

Unfortunately, the failure of the FTC to protect consumer privacy, we believe, has contributed to the erosion of confidence of the public in their ability to determine how their information can be used. For example, according to a recent Annenberg School of Communications, University of Pennsylvania survey, Americans have deep concern about their loss of control of their data, and they are “resigned” to the fact that nothing will be done to protect them. The Pew Research Center’s findings support that perspective, noting that “Fully 91% of adults agree or strongly agree that consumers have lost control of how personal information is collected and used by companies.”⁹ This loss of confidence in their ability to protect themselves and their families from unauthorized data collection is likely to become even more acute in the face of new privacy challenges. We have reached an especially critical moment for the future of consumer privacy in the United States, as data-gathering and -use capabilities for commercial purposes have reached into every part of our daily lives (e.g., through “health wearables” and other rapidly emerging Internet-of-Things (IoT) devices, with which BIAS companies are already involved).¹⁰

<http://www.consumeradvertisinglawblog.com/2009/11/ftc-seeks-enhanced-powers.html>. Also of note is the criticism of the Administration’s proposed “Consumer Privacy Bill of Rights” legislation, which was seen by Chairwoman Ramirez as undermining the capabilities of the agency. Dana B. Rosenfeld and Alysa Zeltzer Hutnik, “Obama Administration Receives Little Support for the Consumer Privacy Bill of Rights Act,” *Ad Law Access*, 19 Mar. 2015, <http://www.adlawaccess.com/2015/03/articles/obama-administration-receives-little-support-for-the-consumer-privacy-bill-of-rights-act/>.

⁹ As Professor Joseph Turow told the FTC in explaining his research, “The short of it is, people know they are being tracked, [but] at the same time, they don’t understand data mining, they don’t understand what goes on under the hood. We have found that the more people knew about what goes on online, the more resigned they tended to be.” Quoted in Allison Schiff, “The Consumer POV On Cross-Device Tracking: ‘No, Thanks,’” *Ad Exchanger*, 23 Dec. 2015, <http://adexchanger.com/online-advertising/the-consumer-pov-on-cross-device-tracking-no-thanks/>. See also Natasha Singer, “Sharing Data, but Not Happily,” *New York Times*, 4 June 2015, http://www.nytimes.com/2015/06/05/technology/consumers-conflicted-over-data-mining-policies-report-finds.html?_r=0; Lee Rainie, “The State of Privacy in America: What We Learned,” Pew Research Center, 20 Jan. 2016, <http://www.pewresearch.org/fact-tank/2016/01/20/the-state-of-privacy-in-america/>.

¹⁰ Nicole Spector, “Mindshare Finds New ‘Life+’ For Wearables As Marketing Tool,” *GeoMarketing*, 4 Mar. 2015, <http://www.geomarketing.com/mindshare-finds-new-life-for-wearables-as-marketing-tool>; Seb Joseph, “Coca-Cola Shares Its Vision of Advertising in a Connected World,” *The Drum*, 13 Mar. 2016, <http://www.thedrum.com/news/2016/03/13/coca-cola-shares-its-vision-advertising-connected-world>. See, for example, Verizon, “State of the Market: Internet of Things 2016,” <http://www.verizonenterprise.com/verizon-insights/state-of->

II. BIAS companies have developed an extensive data-gathering system on their subscribers and customers for marketing and advertising

As CDD explained in its March 2016 report on the growth of digital data gathering by leading ISPs (and filed separately in this proceeding), companies such as ATT, Comcast, Verizon, Cablevision, and Charter have made significant investments in their ability to capture, process, and take advantage of a consumer's information across all the devices they use daily. They are using cloud- and IP-based management systems to deliver data-connected advertising and marketing; have invested in or allied with real-time programmatic marketing technologies that, in milliseconds, make personalized ad-related decisions on which consumers to target and for what product; and have acquired numerous companies that strengthen their hold and use of consumer information, including data gathered by their consumers' use of apps, online video, and mobile phones.¹¹

That report provides a number of telling examples, including the following:

- AT&T's advertising division, AdWorks, offers cross-device targeting so marketers can "reach your audience everywhere they watch on every screen," including through the use of its "100% PPTV" platform;
- Comcast's "IP-based systems" power its "real-time targeted" advertising platform, using an "advertising automation cloud" that "leverages over 50,000 algorithms and analyzes billions of data points in real-time";

market-internet-of-things/2016/; AT&T, "AT&T Internet of Things," <https://www.business.att.com/enterprise/Portfolio/internet-of-things/>; Comcast, "The Sophisticated Network Behind the Internet of Things," <http://corporate.comcast.com/news-information/news-feed/internet-of-things>.

¹¹ See, for example, Sridhar Alla and Jan Neumann, "How Spark is Working Out at Comcast Scale," *Strata+Hadoop World*, 1 Oct. 2015, <http://conferences.oreilly.com/strata/big-data-conference-ny-2015/public/schedule/detail/43144>; Comcast Labs DC Research, "Research," <http://dclabs.comcast.com/research/>; Ericsson, "AT&T Selects Ericsson to Enhance its TV Platform," <http://www.ericsson.com/news/1951032>; Mari Silbey, "Verizon IPTV Ambitions May Go Beyond Go90," *Light Reading*, 14 Apr. 2016, <http://www.lightreading.com/cable/set-top-boxes/verizon-iptv-ambitions-may-go-beyond-go90/d/d-id/722629>. See also Charter's use of data tags and its work with Telium for digital marketing, including "converting prospects into customers." Tealium, "Case Study Charter Communications Accelerates Digital Marketing Success," <http://tealium.com/resources/charter-communications-tag-management/>.

- Verizon purchased both AOL and Millennial Media last year, with the latter acquisition giving it access to consumer geo-location and other personal information from more than 60,000 apps. Millennial controlled “more than 700 million active server-side unique user profiles, over 60 million of which link multiple mobile devices and PC’s to a single specific user ... ,” with some 175 million monthly unique users in the “United States alone.”¹²

Key characteristics of the BIAS data collection apparatus include:

- Data management platforms (DMPs) enable BIAS providers to integrate and analyze all the available information on particular consumers, and deliver ways to understand and take advantage of their “identity” for marketing purposes. The role of DMPs has a direct impact on consumers’ privacy choices, given that algorithmic-based decision-making involving personal data and its relationship to the content, the device, and even the environment (digital ads are delivered by daypart, based on geo-location, factors related to financial status, etc.) create a process that is now invisible and accountable. Time Warner Cable (TWC, prior to its acquisition) used the DMP and other capabilities of Adobe’s Audience Manager. TWC created “individual profiles” of consumers, including through the merging of its own database with “third-party” and other data. Its goal was to personalize “every experience based on insight and preferences” of consumers in order to “drive sales.” The Adobe product that TWC used “performs cross-device identification that merges profiles across devices and households to create more accurate profiles.”¹³ Verizon’s AOL serves as its DMP, giving it a vast array of data-connected relationships with ad agencies, data trading desks, brands, and leading online companies. “Verizon can track users’ location, online habits, app preferences, family demographics and other billing insights ... ,” explained one digital marketing publication. All this data can be processed through AOL’s DMP services.¹⁴
- Programmatic ad practices, the real-time targeting of individuals through ad auctions or special deals using an array of data, also has serious implications for consumer privacy. Decisions on whom to target and when (or whether to target at all, if they are considered not valuable i.e., “waste”) are all part of the BIAS providers’ marketing practices, covering the personal computer, mobile

¹² For more of these and other examples of the growth of ISP data-gathering capabilities, as well as examining other media companies involved in various forms of advanced addressable and programmatic data practices, see Center for Digital Democracy, “Big Data is Watching: Growing Digital Data Surveillance of Consumers by ISPs and Other Leading Video Providers,” Mar. 2016, <https://www.democraticmedia.org/sites/default/files/field/public-files/2016/ispbigdatamarch2016.pdf>.

¹³ TWC quoted in Adobe, “Unleash Your Power. Accelerate Your Agency with a Data Management Platform, <http://www.dataisyourpower.com/> (registration required).

¹⁴ Center for Digital Democracy, “Big Data is Watching,” pp. 51-52.

devices, and increasingly the digitally-connected television platform. A chief reason Verizon acquired AOL was to take advantage of its programmatic technology. Last month, an AOL executive declared that “With Verizon, Microsoft, and Millennial Media, AOL is well positioned to provide marketers with the expertise and necessary tools for them to deliver media programmatically across mobile devices. Not only do we have an unshakable technology stack in the form of ONE by AOL, but the Millennial Media exchange brings a level of programmatic mobile expertise and technology that few in the industry could rival.”¹⁵

- Use of powerful data-management analytical technologies, data-marketing clouds and data brokers: BIAS companies are or have been partners with the leading data-profiling companies involved with cross-device marketing. Verizon, Comcast, Cablevision, and others use Acxiom, including its consumer-data-merging division, LiveRamp; Verizon also uses elements of the Oracle Marketing Cloud. Comcast uses “operational intelligence” tools from Splunk, which gives it “real-time visibility to customer behaviors/preferences.” Comcast’s NBC recently expanded its use of consumer information, including for its “Audience Targeting Platform.” The network is melding “first-party data with NBCU data and third-party data” to “target audiences across TV, digital and social media marketing channels.” AT&T uses a “suite of models” to engage in analyses of its customers, including using a “customer lifetime-value (CLTV) approach” designed (in part) to assess their “profitability” over time.¹⁶ Numerous other examples are detailed in the CDD report covering ISPs previously filed in this docket.¹⁷

¹⁵ Lindsay Rowntree, “Closed Means Unaccommodating: Q&A with Graham Moysey, Head of International, AOL,” Exchange Wire, 15 Apr. 2016, <https://www.exchangewire.com/blog/2016/04/15/closed-means-unaccommodating-qa-with-graham-moysey-head-of-international-aol/>.

¹⁶ As Splunk explains, “Traditional digital analytics tools are focused on marketing, e-commerce, single point interactions. Splunk compliments these traditional tools with combined/correlated views across the various data sets at a granular level and in real-time. Comcast indexes over 100 source types from over 10 thousand sources that generate more than 50 billion events. The initial use case at Comcast was focused on IT Operations and Application Delivery. The team quickly realized that by adding more business context to the mobile and video data indexed in Splunk they could access new business insights. Using lookup and enriching machine data indexed in Splunk, Comcast was able to answer number of key questions. Questions like:

- Which app versions are customers running?
- What devices and operating systems should QA devote attention to?
- How many video errors compared to video starts?
- How should development prioritize issues based on customer experience?
- What is the video usage by OS version, device make & model, application version?
- What are the top video types; streaming vs. downloaded statistics?”

Rahul Deshmukh, “Splunk at Comcast: Capturing Actionable Insights to Improve User Experience,” Splunk Blogs: Customers, 17 Apr. 2015,

- BIAS companies' use of "advanced targeting" and addressable-advertising video raises privacy issues and also demonstrates how they have unique access to the TV screen: As a Verizon AOL Platforms executive recently described, advanced targeting "introduces data to the medium that has to date bought and sold advertising on imprecise age and gender metrics Instead of marketers using ratings for individual TV programs or specific channels to determine where to place their ad, audience data is used to guide ad placement." Verizon's Millennial unit offers advertisers the opportunity to "retarget" consumers on their mobile devices with advertising based on their mobile and TV behaviors.¹⁸
- Acquisitions made by BIAS companies are giving them greater clout to use consumer data to deliver personalized and targeted marketing. Comcast acquired ad-technology companies Visible World (which includes the programmatic TV buying platform AudienceXpress) and FreeWheel Media in 2014, giving it additional assets for data-targeted addressable TV and video-ad serving. This month it bought video ad technology company StickyAds.tv, which will be "rolled into its FreeWheel unit." Comcast's Visible World "HighYield" product promises "the most advanced data-driven targeting of individual households." AudienceXpress says it works with the "leading providers of advanced audience data," including Nielsen, Nielsen Catalina (data from a consumer's shopping behavior), Rentrak (now comScore) and leading data broker Neustar. FreeWheel's extensive data partners including leading DMP Krux, Oracle Marketing Cloud's Bluekai, and MOAT (cross-platform and device analytics). Comcast has also invested in leading digital advertising companies that gather data based on a consumer's location, use of

<http://blogs.splunk.com/2015/04/17/splunk-at-comcast-part-1/>. See also Geoffrey Percourt, "How AT&T Enhances Marketing-mix Modeling," Warc, 2015, personal copy; Manojit Nandi, "Identifying Negative Influencers in Mobile Customer Churn," Verizon Wireless, 10 Dec. 2014, <http://snap.stanford.edu/class/cs224w-2014/projects2014/cs224w-53-final.pdf>.

¹⁷ LiveRamp, "Partners," <http://liveramp.com/partners/>; Acxiom, "Partner Spotlight: Cablevision Media Sales," <http://www.acxiom.com/partner-spotlight-cablevision/>; David Kirkpatrick, "NBCUniversal to Launch Multi-channel Targeted Marketing Division," Marketing Dive, 19 Feb. 2016, <http://www.marketingdive.com/news/nbcuniversal-to-launch-multi-channel-targeted-marketing-division/414149/>; Wayne Friedman, "NBCU Offers 'Guarantees' Based On First-Party, Other Data For Marketers," Media Post Television News Daily, 14 Apr. 2016, <http://www.mediapost.com/publications/article/273507/nbcu-offers-guarantees-based-on-first-party-oth.html>; Oracle, "Success Stories: Verizon," <https://www.oracle.com/marketingcloud/customers/success-stories/verizon.html>. For additional examples, see Center for Digital Democracy, "Big Data is Watching."

¹⁸ Lewis Sherlock, "Audience-addressable TV," Admap, Jan. 2016, personal copy; Kelly Liyakasa, "AOL-Owned Millennial Pairs With Rentrak To Offer TV Ad Retargeting In Mobile," Ad Exchanger, 19 Nov. 2015, <http://adexchanger.com/mobile/aol-owned-millennial-pairs-with-renttrak-to-offer-tv-ad-retargeting-in-mobile/>.

video, and social media.¹⁹ AT&T acquired a “next-generation video-delivery platform” that supports OTT and “TV Everywhere” distribution earlier this month. Its acquisition of DirecTV, of course, is the data targeting foundation it is using for its digital marketing service.²⁰

III. BIAS companies’ provision of cross-device services affords them greater opportunities to leverage their network role in order to expand market share or deliver advertising, including with geo-location

Through the capture of consumer behavior across their devices, including the mobile phone, and combined with their customer database, BIAS companies are in a unique position to create personalized communications based on a person’s real actions. They can monitor, for example, what apps are downloaded on a mobile device, and work with marketing partners to build extensive profiles. Apps provide a wealth of highly personal geo-location and other data, which are at the foundation of hyper-targeted digital marketing (i.e., at the neighborhood level).²¹ AT&T recently partnered with a leading “mobile user acquisition network” to facilitate the process known as “app discovery,” a key part of the consumer-data-gathering process.²² ATT has boasted that “unlike the

¹⁹ Kelly Liyakasa, “Comcast Powers Up FreeWheel By Acquiring French Video Startup StickyAds,” Ad Exchanger, 9 May 2016, <http://adexchanger.com/digital-tv/comcast-powers-freewheel-acquiring-french-video-startup-stickyads/>; Visible World, “Platforms & Products,” <http://www.visibleworld.com/platforms-products/>; AudienceXpress, “Data,” <http://www.audienceexpress.com/data/>; FreeWheel, “Partners,” <http://freewheel.tv/partners/>; Neustar, “AudienceXpress and Neustar Announce Data Partnership to Bridge Gap Between Online and TV Ad Campaigns,” 14 Mar. 2014, <https://www.neustar.biz/about-us/news-room/press-releases/2014/audienceexpress-and-neustar-announce-data-partnership-to-bridge-gap-between-online-and-tv-ad-campaigns>. Comcast Ventures’ portfolio can be seen as a good indicator that Comcast perfectly understands and plans to take advantage of how contemporary digital-data-driven marketing works today. Investments include the Rubicon Project, 4Info, Videology, Vitruv, and NinthDecimal. Comcast Ventures, “Our Portfolio: Advertising,” <http://www.comcastventures.com/portfolio-sector/advertising>.

²⁰ AT&T, “AT&T to Enhance Next-Generation Video-Delivery Platform with Acquisition of Quickplay from Madison Dearborn Partners,” 17 May 2016, http://about.att.com/story/att_to_enhance_next_generation_video_delivery_platform.html; “AT&T AdWorks: Leading the Charge in Addressable TV Advertising,” *Adweek* Audience Targeting Guide, 29 Nov. 2015, <http://www.adweek.com/sa-article/att-adworks-leading-charge-addressable-tv-advertising-168311>.

²¹ For an example of this kind of telecom-related targeting, see Sarah Potter, “Optus: ROI Facebook,” Warc Prize for Innovation, 2016, personal copy.

²² Anne Freier, “Digital Turbine Partners with AT&T to Simplify App Discovery Process,” Moby Affiliates, 9 Nov 2015, <http://www.mobyaffiliates.com/blog/digital-turbine-partners-with-att-to->

Google's, the Facebooks, the twitters, etc,” it can send “cross-screen targeted ads to TVs.”²³ Verizon is now “sharing location data gleaned from wireless user devices with AOL and its ad partners,” including what they call is “live data” (which, says AOL, it works to “activate”). “We have unique access to behavior at a deterministic and scaled manner,” through the use of ONE by AOL and Verizon data, explained the chief technology officer of AOL in early May.²⁴

IV. The use of racial, ethnic, financial, health, and data on children and adolescents by BIAS providers underscore the need for FCC safeguards

Consumers are entitled to know what data are gathered from and about them, and also how that is used for potentially unfair and even harmful or discriminatory practices. For example, a wide range of racial, ethnic, sexual preference and related personal data are now available. Verizon used Geoscape's DirectTarget “predictive” system to engage in “more effective ethnic targeting for telecom products and services.” It engaged in “geographically-intelligent direct marketing” to multicultural groups (such as Asian Americans, African Americans, and Hispanics), targeting its own customers as well as “rented prospect lists.” Verizon used Geoscape to identify “multi-cultural clusters,” including a consumer's “most probable country of origin and probable language preference.” Similarly, Time Warner Cable used the same Geoscape product to “build a predictive model that would identify those non-subscribing Hispanic households that

simplify-app-discovery-process/; ProgrammableWeb, “Verizon Location API,” <http://www.programmableweb.com/api/verizon-location>; AT&T, “Mobile Marketing,” <https://wireless.att.com/businesscenter/solutions/mobile-marketing/index.jsp>. Note that companies can now use location data to measure the impact of addressable TV campaigns. See, for example, PlaceIQ, “Measuring Addressable TV Campaigns is Now Possible,” 8 Mar. 2016, <http://placeiq.com/2016/03/08/measuring-addressable-tv-campaigns-is-now-possible/>.

²³ Center for Digital Democracy, “Big Data is Watching,” p. 19.

²⁴ Yuyu Chen, “Verizon Expands to Programmatic Advertising With AOL Acquisition,” ClickZ, 12 May 2015, <https://www.clickz.com/clickz/news/2408246/verizon-expands-to-programmatic-advertising-with-aol-acquisition>; Karl Bode, “Verizon Now Sharing User Location Data With AOL Advertisers,” DSL Reports, 5 Apr. 2016, <http://www.dslreports.com/shownews/Verizon-Now-Sharing-User-Location-Data-With-AOL-Advertisers-136610>; Tobi Elkin, “AOL ONE CTO On The Advantages Of Private Marketplace Deals,” Media Post RTBlog, 12 May 2016, <http://www.mediapost.com/publications/article/275651/aol-one-cto-on-the-advantages-of-private-marketpla.html>.

would be most likely to subscribe” On behalf of TWC, Geospace prepared a database that included “dozens of indicators” at the household level, and generated a predictive model to assess “each non-subscribing household according to the likelihood to subscribe.”²⁵ Comcast’s AudienceXpress targeted “low income households” to apply for “personal loans” via its programmatic television platform. Consumers were identified based on “household income presence and age of children, home ownership status, pet ownership and ethnicity.” By the second week of the campaign, based on the analysis of data, the campaign was “optimized” to target people who made less than \$40,000 a year and rented.²⁶ There is now a greater ability to target consumers based on their health information, including using addressable set-top boxes and multiple other personal digital devices. For example a Comcast partner, Videology, offers “TVRx, a solution for pharmaceutical and health oriented markers to target ... across television and digital video.”²⁷

Children and adolescents are a uniquely vulnerable population, but are the growing targets of digital marketing. While the Children’s Online Privacy Protection Act (COPPA) provides a range of safeguards for young people 12 and younger, the commission’s proposed rules will better protect this vulnerable audience. BIAS providers, through the data they gather and analyze on household media use and other

²⁵ See Verizon and TWC case studies: Geospace, “Case Studies,” <http://geospace.com/case-studies/>. Note also the “cultural coding” used: Geospace, “Solutions: DirecTarget® SDK,” <http://geospace.com/solutions/directarget-sdk/>.

²⁶ AudienceXpress, “Case Study: The First-Time TV Advertiser,” <http://www.audienceexpress.com/media-kit/case-study/>.

²⁷ “Nielsen Catalina Solutions and Crossix Deliver Breakthrough Television Solution for Pharma,” Business Wire, 16 Oct 2014, <http://www.businesswire.com/news/home/20141016005123/en/Nielsen-Catalina-Solutions-Crossix-Deliver-Breakthrough-Television>; Crossix, “Programmatic Audience Targeting,” <http://www.crossix.com/solutions/Digital-Connect.aspx>; TubeMogul, “Medicx Media Solutions Partners With TubeMogul to Scale Pharmaceutical Video Advertising,” 14 Dec. 2015, <https://www.tubemogul.com/press-releases/medicx-media-solutions-partners-with-tubemogul-to-scale-pharmaceutical-video-advertising/>; Comcast, “How Videology Connects the Dots within the New Video Landscape,” <http://corporate.comcast.com/news-information/news-feed/how-videology-connects-the-dots-within-the-new-video-landscape>; “Everyday Health and Videology Partner to Launch TVRx, the Industry’s Most Comprehensive Data-Driven Video Solution for Pharma Advertisers,” 10 Nov. 2015, <http://www.prnewswire.com/news-releases/everyday-health-and-videology-partner-to-launch-tvr-x-the-industrys-most-comprehensive-data-driven-video-solution-for-pharma-advertisers-300176116.html>.

consumer information (such as what a household buys at a local store) are able to identify the presence of young people. Parents are unaware of the extensive use of data to identify and then target a child or teen. AT&T Adworks says it can crunch its extensive database to help advertisers reach consumers who are “married with children and have smartphones and are heavy data users. We can get that granular level in our targeting that goes beyond the standard age and gender” Similarly, Cox’s data capability allows it to identify that there are “children in the household,” as well using information that includes “average household income, ethnicity, home ownership, education, marital status, types of insurance,” and “type of online content they consume.”²⁸ There are plans underway to seriously expand targeting of young people online, through a Coalition for Innovative Media Measurement (CIMM) initiative designed to create “a thorough and comprehensive view of cross-platform, digital and mobile measurement of content and ads among children and teens aged two to 17.” Comcast’s NBCUniversal is one of CIMM’s members.²⁹

A vast ocean of consumer financial, racial, ethnic, health and data related to young people are available today for the creation of consumer targeting profiles, including through the “marketing clouds” used by BIAS companies.³⁰

V. Responses to Specific Questions Raised by the NPRM

30. Defining Affiliate: Given the investments made by BIAS companies, such as Verizon’s acquisition of AOL/Millennial, as well as the growing consolidation within the digital data marketplace, it is essential that affiliates are required to operate under the commission’s proposed pro-consumer privacy rules. With the data sharing evident between parent companies and their divisions we witness, safeguards are necessary to

²⁸ Center for Digital Democracy, “Big Data is Watching,” pp. 18, 42.

²⁹ “RealityMine Chosen by Coalition for Innovative Media Measurement to Conduct Youth Total Cross-media Usage Measurement Project,” 16 June 2015, <http://www.realitymine.com/news/realitymine-chosen-by-cimm-project/>.

³⁰ See, for example, Oracle, “Oracle Data Cloud Data Directory,” 2015, http://www.oracle.com/webfolder/assets/cloud-data-directory/pdf/oracle_data_cloud_data_directory.pdf.

ensure that consumers are fairly treated. That is why, as we discuss below, consumers must be able to opt in for all data collection, including telecommunications-related service. We also call on the FCC to address BIAS provider investments and partnerships with data and digital marketing companies, where information on consumers could be shared or used that undermines the intent of the NPRM.³¹

34. Defining Customer: As previously discussed, BIAS providers are able to recognize, through a variety of direct and inferred practices, members of a household who may not be the subscriber (such as a child). Commission rules should protect every consumer in that household, and those with a login (or are identified as a distinct customer by the subscriber) should be provided with the same fair treatment for their privacy (and enabling parents to make informed decisions about minors).

38, 41, 43. Defining CPNI in the Broadband Context: We want to underscore the importance of a consumer's location as part of a CPNI for broadband. The most recent frontier crossed by the digital marketing industry, and where BIAS companies play a unique role, is determining the actual location and geo-history of a consumer. Hyper-location targeting, as it is known, has been built through the combination of widespread adoption of mobile devices; the emergence of specialized data companies that precisely map out, for targeting purposes, much of the U.S. (from stores and restaurants to public parks, for example); and through technical standards that now deliver our location so an ad can be delivered (such as a programmatic one). BIAS companies help provide location information used for these geo-targeted ads, and we know that these data are being used for other targeting—such as in the home via set-top box ad delivery. Location data used in today's digital marketplace must be protected by the commission.³²

³¹ We are especially concerned that data companies will claim they are merely service providers, allowing an almost unlimited source of consumer data to be given to the BIAS companies without consumer consent. See, for example, Salesforce, "Comcast Business Services," <http://www.salesforce.com/customers/stories/comcast.jsp>.

³² Location-targeted ad spending in the U.S. was predicted to grow from \$8.4 billion in 2015 to \$11.3 billion this year (with overall spending for mobile ads reaching \$43.6 billion). As a recent paper by the Mobile Marketing Association explains, geo-behavioral patterns are valuable because they can indicate demographics (age, gender, race, income, etc.),

44. Device Identifiers: CDD urges the commission to include MAC addresses and other device identifiers into its definition. These IDs are being used as part of geo-location targeting, for example.³³

45. IP Addresses: It should be included as broadband CPNI. Today, IP address-related digital marketing enables highly granular tracking and targeting of consumers. The FTC recognized this in its 2012 improvements for the COPPA rule.³⁴

57. CDD supports the commission's proposal protecting both CPNI and PII in the context of broadband practices, as reflected by Section 222 of the Communications Act. It creates an importantly critical foundation protecting consumers' privacy, enabling them to feel confident that their information is secure and within their control.

62. Defining PII: The commission has developed an extensive list, including the role that "persistent online identifiers" and eponymous and non-eponymous online identities play. We believe that it should capture the use of "scoring" and "persona" targeting techniques

behavioral/psychographic traits (travel, dining habits, shopping behavior, brands, and retail locations frequented, etc.), and geographic data (areas where the user spends time). eMarketer, "Mobile Ad Spending: U.S. 2014-2018, personal copy. See also Mobile Marketing Association, "Guidance Report: Location Audience Targeting," June 2015, <http://www.mmaglobal.com/documents/location-audience-targeting> (registration required).

³³ Apple changed its IP practices to respond to privacy concerns, for example. Mike Beasley, "More Details on How iOS 8's MAC Address Randomization Feature Works (and When it Doesn't)," 9to5 Mac, 26 Sept 2014, <http://9to5mac.com/2014/09/26/more-details-on-how-ios-8s-mac-address-randomization-feature-works-and-when-it-doesnt/>.

³⁴ Digital Element, "Publishing & Advertising: IP Geolocation for Publishers & Advertisers," <http://www.digitalelement.com/industries/publishing-advertising/>; Neustar, "Audience Targeting Solutions for Display Advertising," <https://www.neustar.biz/resources/product-literature/advertising-ip-targeting-brochure>; Federal Trade Commission, "Complying with COPPA: Frequently Asked Questions," 20 Mar. 2015, <https://www.ftc.gov/tips-advice/business-center/guidance/complying-coppa-frequently-asked-questions>; The EU's Article 29 Working Party has also discussed how IP addresses are forms of PII. See, for example, Article 29 Data Protection Working Party, "Opinion 9/2014 on the Application of Directive 2002/58/EC to Device Fingerprinting," Sept. 2014, http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2014/wp224_en.pdf.

at work today. The commission should identify mobile and geo-location ad identifiers as well.³⁵

68 and 69. Opt-in and Opt Out: We urge the commission to consider ensuring that for both opt-in and opt-out, there is clear and honest information provided to the consumer that describes the actual data practices being conducted. (Normally such information is only given to marketing partners. What's generally told to consumers is a purposeful calming claim that this data collection is merely about a targeted ad—and doesn't really reflect the myriad of data uses and targeting partners that now are part of the process.)

71. CDD urges the commission to require opt-in by the consumer for BIAS marketing of telecommunications, including by their affiliates. The commission has proposed a slippery slope that ultimately will undermine its very intent. Consumers require a uniform safeguard that ensures they have meaningful control of their information. There are simply too many ways that BIAS companies can take advantage of subscribers' data if opt-out is used (since few consumers ever opt-out). They will be able to leverage that telecommunications data to secure ongoing permission to gather and share consumers' data (such as through the creation of interactive ads, honed to a customer's interest and expectations, and purposefully designed and tested to obtain consent).

Telecommunications service, in today's multi-screen world, can involve agreeing to streaming video, mobile, and geo-related applications, as well as increased broadband capacity, etc. BIAS companies are increasingly offering OTT video services, for example.³⁶ If BIAS companies can market additional telecom services without first providing consumers a meaningful opportunity to consent, they will effectively capture critically important real-world data and insights on subscribers and their families, their

³⁵ Google, "AdvertisingIdClient," Google APIs for Android, <https://developers.google.com/android/reference/com/google/android/gms/ads/identifier/AdvertisingIdClient>; Mikel Chertudi, "Strategic Marketing Plan Element #5: The Power of Personas," Adobe Digital Marketing Blog, 6 Oct. 2014, <https://blogs.adobe.com/digitalmarketing/digital-marketing/strategic-marketing-plan-element-5-power-personas/>.

³⁶ See, for example, AT&T, "AT&T to Enhance Next-Generation Video-Delivery Platform with Acquisition of Quickplay from Madison Dearborn Partners," 17 May 2016, http://about.att.com/story/att_to_enhance_next_generation_video_delivery_platform.html.

transactions in and out of the home, and even their social media use. Opt-in for all services provides a fair foundation ensuring that consumers make the decision on what information can be used.

74. Defining Aggregate PI. CDD urges the commission to examine what BIAS companies claim are “aggregated data.” We believe they are using the term “aggregate” as a cloak to hide what are highly targeted and personal marketing campaigns. CDD provides several examples in its ISP and Big Data report that show how the use of aggregate and so-called “anonymous data” actually involves targeting specific consumers in the multi-device context. Developments in Big Data machine learning and customer analytics have outstripped notions of aggregate data giving BIAS providers a free pass on privacy.³⁷

82, 102. Privacy Policies. As we discussed above, privacy policies are written primarily to obscure rather than disclose actual consumer-data practices. There is an enormous gap between what a privacy policy claims and what a company, and its data and digital marketing partners, actually do. Nor do self-regulatory schemes (such as the use of tiny “icons” that signal data collection) really work. BIAS companies, and their partners, should be able to be both candid and succinct in what happens with our data. They should also test layout and design factors to ensure that their privacy policies are actually in view (as the industry is able to do with “viewability” of digital ads). Today’s mobile environment does not provide adequate opportunity for subscribers to review privacy policies and related data-collection practices. In fact, the growing collection of real-time geo-location data is based on the failure of mobile apps to effectively disclose their practices. The commission should require that mobile notices be both accurate and viewable.³⁸

³⁷ See, for example, Splunk, “Splunk Internet of Things Day,” SlideShare, 12 Oct. 2015, <http://www.slideshare.net/Splunker/splunk-internet-of-things-roundtable-2015>.

³⁸ Kate Kaye, “Study: Consumers Don’t Know What AdChoices Privacy Icon Is,” *Advertising Age*, 29 Jan. 2014, <http://adage.com/article/privacy-and-regulation/study-consumers-adchoices-privacy-icon/291374/>; comScore, Advertising Analytics: Viewability Solutions,” <https://www.comscore.com/Products/Advertising-Analytics/Viewability>; Allison Schiff, “MRC:

111-114, 122-123. As we previously noted, allowing BIAS providers to use customer PI without consent will further undermine consumer privacy. In today’s digital marketplace, the network, content, advertising, and measurement functions are combined (as well as relationships with data brokers, analytics companies, and affiliates.). Each telecom product brings a set of data practices that will have practical impacts on a person’s privacy—challenging the FCC’s assumption that consent is implied. The commission should narrowly define telecommunications services in the broadband context solely as the provision of bandwidth; any other service must require opt-in consent. Affiliates must also obtain opt-in for any services. Otherwise the arrangement illustrated by Verizon’s control of AOL and Millennial Media will undermine a consumer’s reasonable expectation for privacy. This will foster cross-device tracking, use of geo-location and promote the very practices the commission is trying to address. We note that BIAS providers other than Verizon have also made acquisitions that will enable their affiliates to serve as a data-collection “Trojan Horses.”

124. We know from consumer research that the lack of overall privacy is a key concern. The digital marketing industry recognizes this as well—and indeed is largely responding cooperatively to forthcoming changes required by the European Union under the new General Data Protection Regulation. The FCC’s proposed privacy framework will help the U.S. digital marketing industry in multiple ways, both here and abroad.³⁹

126. To reiterate, affiliates should be considered third parties. They can have distinctive data-collection capabilities that can be bundled with BIAS provider data holdings. We do not believe common branding works, given how the digital market works today.

2016 Will Be The Year Of Mobile (Viewability),” Ad Exchanger, 15 Jan. 2016, <http://adexchanger.com/ad-exchange-news/mrc-2016-will-year-mobile-viewability/>.

³⁹ Mike Zaneis, “Why the IAB Thinks It’s Good that Marketers Are Concerned About Privacy,” *Ad Age*, 24 Mar 2014, <http://adage.com/article/digitalnext/good-marketers-concerned-privacy/297748/>; Andy Green, “Preparing for the EU General Data Protection Regulation,” *The Inside Out Security Blog*, 11 May 2016, <https://blog.varonis.com/preparing-for-the-eu-general-data-protection-regulation/>.

130-132. There is a new data-sharing economy at work today that requires the framework proposed by the commission (with the addition of opt-in for telecom and affiliate services). Companies now see their “first-party” data as key assets and are less likely to share with third parties. What is more likely is that BIAS companies will receive forms of first-, second-, and third-party along with insight data from advertising customers in order to run campaigns. The results of such campaigns are shared, of course, with advertisers (who are increasingly operating their own data-management and programmatic platforms or using the services of one). This real-time “mix and match” approach to the use of consumer information involves growing data collection, far-flung data partners, and sophisticated ad practices. This is a key reason why requiring opt-in for all sharing and use is required.⁴⁰ The commission’s proposal will be of huge benefit to the digital marketing industry overall, as the U.S. adopts a sound legal foundation for broadband privacy. It will foster better privacy practices throughout the industry and help transform public opinion—here and abroad—about the recalcitrance of the U.S. to adopt 21st century consumer safeguards for privacy.

135-136. We don’t believe that consumers will be overwhelmed. The digital marketing industry, which includes the BIAS entities, have developed creative ways to foster consumer interaction (through ad formats, brand labs, usability research, etc.). They can apply the very same methods now used to help gather consumer data to provide consumers a real choice.⁴¹ CDD supports the commission’s identifying information that is classified as sensitive, such as location and data involving minors, which requires greater safeguards. We note, however, that the ability to gather and analyze widely

⁴⁰ Leading ad agencies have data trading desks: Brian Lesser, “The CEO of WPP’s Massive Advertising Trading Desk Explains the 3 Biggest Myths about Xaxis,” Xaxis, 22 July 2015, <https://www.xaxis.com/news/view/the-ceo-of-wpps-massive-advertising-trading-desk-explains-the-3-biggest-myt>. Companies such as Kellogg’s, ABInBev, Viacom, and Time Warner use Krux’s DMP.

⁴¹ See, for example, IAB, “Rising Stars Ad Units,” <http://www.iab.com/guidelines/rising-stars-ad-units/>; Google BrandLab, <https://brandlab.withgoogle.com/>; Nielsen Norman Group, “User Experience for Mobile Applications and Websites,” <https://www.nngroup.com/reports/mobile-website-and-application-usability/> (purchase required).

disparate data sets that can generate highly personal details raises concerns that the traditional delineation between sensitive and non-sensitive is now being challenged.

140-145. CDD supports the commission’s proposal that BIAS companies provide sufficient information that describes how their data will and can be used (including sharing, role in cross-device identification, look-alike modeling, profile creation and its maintenance). BIAS providers, as leading digital marketers and now also operators of data-driven ad platforms, already know precisely how a consumer’s data will be used today—and very likely next year. Their service providers may change, but they will be engaged in predictive analytics, scoring, cross-platform targeting, integration of data from outside parties, etc. As we noted earlier, they can make privacy notifications succinct, candid, and effective. Consumer organizations will be happy to work with BIAS companies to accomplish this, if the commission enacts this proposal. Privacy decisions should be at or near the point of sale (and it is ironic that having largely adopted a real-time approach to data targeting, companies complain they can’t offer similar “in-the-moment” consent requests). We also support consumers being afforded regular updates on BIAS privacy practices. A dashboard is a reasonable approach to offer subscribers, a “one-stop-shop” to decide on their privacy practices, with just-in-time messages near the point of offering or sale helping direct them to the site.

154-164. Aggregate PI. As we noted earlier, we believe that advances in the digital marketplace raise fundamental questions about the actual uses of so-called aggregate data. BIAS providers and others claim such data are both aggregate and anonymous—yet they also openly describe how these data are central to individualized campaigns. We will comment further on this issue in the Reply phase. But we are concerned about the commission approving a “back-door” that threatens to undermine the goal of the NPRM.

258. Pay to give-up privacy. It is fundamentally unfair to economically vulnerable consumers to set up a system where they are—in essence—bribed to give up their personal data. Consumers should not be forced to surrender their financial, health, and location data in order to pay a monthly bill for fixed or mobile broadband. Nor should

families on a budget, whose children need broadband for school, have to consent to their becoming digital marketing targets for junk food and other products. The commission is right to propose prohibiting BIAS providers from making service offerings contingent on consumers giving up their right to privacy. The practice of offering discounts and other inducements to give up privacy in exchange for discounts or marketing considerations is an unfair practice whose burden will fall on those less able to address the privacy (and public welfare) consequences.

264. We urge the commission to prohibit the use of deep packet inspection (DPI) as proposed. DPI will provide BIAS companies with an unfair advantage for the creation of consumer data profiles, and such intrusive practices are unacceptable.

268-270. Persistent Tracking: This is the model today—a consumer behavior is continually tracked, online and now (through mobile devices and geo-locational technologies) offline as well. Cross-device targeting, powered by sophisticated data-management technologies, is the norm. We support prohibiting persistent tracking; at the very least, robust opt-in for all such tracking is necessary.

Finally, we want to acknowledge that Americans confront a serious privacy problem beyond the BIAS companies. So-called “edge” providers are a real concern. But we agree with the commission that BIAS companies have a different role to play, along with a historic legal framework designed to protect the privacy of consumer communications over networks. We applaud the commission’s NPRM, and—with the few exceptions noted above—urge its enactment as soon as possible. American consumers will be able to rest easier knowing that the network they and their families rely on must now respect their privacy decisions.

Respectfully Submitted,



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