

RICHARD BLUMENTHAL  
CONNECTICUT

COMMITTEES:

AGING

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JUDICIARY

VETERANS' AFFAIRS

United States Senate

WASHINGTON, DC 20510

706 HART SENATE OFFICE BUILDING  
WASHINGTON, DC 20510

(202) 224-2823  
FAX: (202) 224-9673

90 STATE HOUSE SQUARE, TENTH FLOOR  
HARTFORD, CT 06103

(860) 258-6940  
FAX: (860) 258-6958

915 LAFAYETTE BOULEVARD, SUITE 304  
BRIDGEPORT, CT 06604

(203) 330-0598  
FAX: (203) 330-0608

<http://blumenthal.senate.gov>

August 20, 2018

The Honorable Joseph Simons  
Chairman  
Federal Trade Commission  
600 Pennsylvania Avenue NW  
Washington, D.C. 20580

Dear Chairman Simons:

I write pursuant to the Federal Trade Commission's (FTC) request for comment in preparation for the Competition and Consumer Protection in the 21st Century Hearings (Project Number P181201), which are expected to begin next month and continue through January 2019. This comment – one of several I am submitting, pursuant to the Commission's request for a separate comment for each topic – responds to "Topic 9" of the announcement: "The consumer welfare implications associated with the use of algorithmic decision tools, artificial intelligence, and predictive analytics."

I welcome this opportunity to comment on whether the changing technological landscape is reflected in our competition and consumer protection laws, enforcement priorities, and policies. Given the rate at which the digital sphere is evolving, it is imperative to make sure that the law and federal agencies are responsive to changing markets and technologies. As you prepare your review of FTC enforcements and policies, I urge you to be mindful of algorithmic impacts on consumers, with special consideration given to the following issues during your upcoming review.

*I. Re-evaluate Consumer Data Privacy Frameworks and Guidance*

As algorithms become increasingly more powerful and dominant in our lives, they have access to more information and rely on fewer data points to draw more powerful inferences about us.<sup>1</sup> This can be an advantage in many cases, like natural language processing.<sup>2</sup> However, this ability to make precise inferences about individuals also raises consumer privacy and protection concerns. A 2012 study of Facebook records showed that people's personal attributes (e.g., gender, race, and sexual orientation) can be automatically and accurately inferred through

<sup>1</sup> Will Knight, "This AI Algorithm Learns Simple Tasks as Fast as We Do," *MIT Technology Review*, December 10, 2015, <https://www.technologyreview.com/s/544376/this-ai-algorithm-learns-simple-tasks-as-fast-as-we-do/>.

<sup>2</sup> Tom Simonite, "Algorithms That Learn with Less Data Could Expand AI's Power," *MIT Technology Review*, May 24, 2016, <https://www.technologyreview.com/s/601551/algorithms-that-learn-with-less-data-could-expand-ais-power/>.

artificial intelligence.<sup>3</sup> Similarly, in testimony before the House Committee on Energy and Commerce, Professor Michael Kearns of the University of Pennsylvania asserted that algorithms can accurately infer categories “about specific individuals that were not present in their raw data at all,” like sexual orientation, race, and political affiliation.<sup>4</sup> Moreover, modern algorithmic tools are not only able to infer information about attributes, but can also predict specific behavior. A 2015 study of anonymized credit card transactions showed that 90 percent of shoppers could be identified from as few as four pieces of information.<sup>5</sup> In light of recent technological advances, we need a stricter legal and regulatory framework to protect consumer privacy.

First, the FTC must ensure that its frameworks and voluntary guidance reflects new challenges, such as indirectly identifying consumers. I commend the FTC for implementing a framework for de-identifying sensitive data. However, the FTC can go further. The current framework for safeguarding data is as follows: first, the FTC requires companies to de-identify data; second, they require companies to maintain and use these data in a de-identified form; and third, the FTC contractually prohibits other companies from attempting to re-identify these data.<sup>6</sup> While these fundamentals remain applicable, de-identified data are more valuable than previously, and companies are more likely to retain such data sets. Modern algorithms and changes to data collection practices create new risks of re-identification that should be at the forefront of consideration as the FTC moves forward. Technological advancements and industry best practices, such as the use of encryption, have improved the ability to securely take advantage of these datasets while respecting users.

Second, the FTC must expand the scope of what it classifies as “sensitive data.” Research has demonstrated that software and algorithms can and do implicitly discriminate along lines of race and gender, among other characteristics. For example, a report published by the MIT Media Lab in 2018 demonstrated that commercially-available facial recognition software disproportionately misidentifies women and minority populations.<sup>7</sup> Such misidentification can happen when algorithms are trained on biased or incomplete data.<sup>8</sup> Given the potential for

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<sup>3</sup> Michal Kosinski, David Stillwell, and Thore Graepel, “Private traits and attributes are predictable from digital records of human behavior,” in *PNAS* 110 (15) (2013): 5802-5805, accessed July 20, 2018, <http://www.pnas.org/content/110/15/5802>.

<sup>4</sup> *Algorithms: How Companies' Decisions About Data and Content Impact Consumers: Hearing before the Committee on Energy and Commerce, House of Representatives*, 115th Cong. 1 (2017), <https://docs.house.gov/meetings/IF/IF17/20171129/106659/HHRG-115-IF17-Wstate-KearnsM-20171129.pdf>.

<sup>5</sup> Natasha Singer, “With a Few Bits of Data, Researchers Identify ‘Anonymous’ People,” *New York Times*, January 29, 2015, <https://bits.blogs.nytimes.com/2015/01/29/with-a-few-bits-of-data-researchers-identify-anonymous-people/>.

<sup>6</sup> Federal Trade Commission, *Protecting Consumer Privacy in an Era of Rapid Change*, (2012), <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf>, 21.

<sup>7</sup> Joy Buolamwini and Timnit Gebru, “Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification,” *Conference on Fairness, Accountability, and Transparency* 81, (2018): 2, accessed July 23, 2018, <http://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>.

<sup>8</sup> *Ibid.*, 1.

misidentification, it is crucial that the data and algorithms that is used by the private sector is crafted to minimize biases.<sup>9</sup>

Currently, the U.S. Equal Employment Opportunity Commission (EEOC) prevents discrimination based on age, disability, genetic information, national origin, pregnancy, race/color, sex, and others.<sup>10</sup> Similarly, under the Fair Housing Act, the U.S. Department of Housing and Urban Development (HUD) prevents discrimination based on race, color, national origin, religion, family status, gender, and disability.<sup>11</sup> The FTC, however, limits its definition of “sensitive” data to “information about children, financial and health information, Social Security numbers, and precise geolocation data.”<sup>12</sup> In its 2012 report on privacy, the FTC acknowledged that consumers were concerned that data related to race, religious beliefs, ethnicity, or sexual orientation was not deemed sensitive.<sup>13</sup> These upcoming hearings present an opportunity for the FTC to revisit this issue. I strongly urge the FTC to treat these identifiers as “sensitive” data. In doing so, the FTC will help ensure consumers are protected from the detrimental impacts of algorithmic discrimination.

## II. *Support Transparency Through Algorithmic Tools Auditing Framework*

Currently, there are few mechanisms in place to facilitate oversight of the use of algorithms by public agencies and the private sector. This is an area in which the FTC alongside partner agencies should take a more active role. In April 2018, the *AI Now Institute* proposed a framework for assessing the impact of algorithms. Algorithmic Impact Assessments (AIAs) can be implemented in order to provide a way for public agencies and others to “address the accompanying risks to fairness, justice, and due process.”<sup>14</sup> *AI Now*’s proposed framework urges the adoption of a “public notice of system adoption, agency self-assessment, a plan for meaningful access for researchers and experts, and due process mechanisms.” Moreover, this framework would require agencies to provide a non-technical summary for the public and establish a practical and appropriate definition of “automated decision systems” in terms broader than just software.

While the framework put forth by *AI Now* is just one proposal aimed at assessing the use of algorithms, it is a good starting point. As the report points out, the “benefits of self

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<sup>9</sup> This is also important because the “individualized visibility” and “digital fluency” required to be hired can discriminate against “marginalized identities — including but not limited to race, ethnicity, age, sexuality, nationalist, and disability.” Source: Julia Ticona, Alexandra Mateescu, and Alex Rosenblat, “Beyond Disruption: How Tech Shapes Labor Across Domestic Work & Ridehailing,” *Data & Society* (2018): 24, 26, 25, accessed July 20, 2018, [https://datasociety.net/wp-content/uploads/2018/06/Data\\_Society\\_Beyond\\_Disruption\\_FINAL.pdf](https://datasociety.net/wp-content/uploads/2018/06/Data_Society_Beyond_Disruption_FINAL.pdf).

<sup>10</sup> “Discrimination by Type,” U.S. Equal Employment Opportunity Commission, accessed August 10, 2018, <https://www.eeoc.gov/laws/types/>.

<sup>11</sup> “Housing Discrimination Under the Fair Housing Act,” U.S. Department of Housing and Urban Development, accessed August 10, 2018, [https://www.hud.gov/program\\_offices/fair\\_housing\\_equal\\_opp/fair\\_housing\\_act\\_overview](https://www.hud.gov/program_offices/fair_housing_equal_opp/fair_housing_act_overview).

<sup>12</sup> Federal Trade Commission, *Protecting Consumer Privacy in an Era of Rapid Change*, 59.

<sup>13</sup> *Ibid.*

<sup>14</sup> Dillon Reisman, Jason Schultz, Kate Crawford, and Meredith Whittaker, “Algorithmic Impact Assessments: A Practical Framework for Public Agency Accountability,” *AI Now Institute* (2018): 21, accessed July 26, 2018, <https://ainowinstitute.org/aiareport2018.pdf>.

assessments to public agencies go beyond algorithmic accountability: it encourages agencies to better manage their own technical systems and become leaders in the responsible integration of increasingly complex computational governance.”<sup>15</sup> The risks associated with algorithmic tools are substantial; the FTC should recognize this fact and broadly promote such frameworks. Such practices align with the FTC’s core strengths and can facilitate voluntary self-regulation and best practices.

*Conclusion*

The hearings on Competition and Consumer Protection in the 21st Century present a unique opportunity to inform Congress and other federal agencies about the opportunities and challenges create by our technology-driven economy. These issues often transcend the classical boundaries of competition and consumer protection. I strongly urge you to engage with other federal agencies to include consideration of the wider array of impact of algorithmic tools and big data.

Thank you for the opportunity to submit comments on this important matter. As you conduct your review, I hope that you take these issues seriously and address them in your upcoming hearings.

Sincerely,

Richard Blumenthal  
United States Senate

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<sup>15</sup> Ibid., 16.