FRANK PALLONE, JR., NEW JERSEY
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RANKING MEMBER

ONE HUNDRED SEVENTEENTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

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March 16, 2022

Ms. Mutale Nkonde
Founder and CEO
AI for the People
666 Hancock Street, 1F
Brooklyn, NY 11233

Dear Ms. Nkonde:

Thank you for appearing before the Subcommittee on Consumer Protection and Commerce on Tuesday, March 1, 2022, at the hearing entitled "Holding Big Tech Accountable: Legislation to Protect Online Users." I appreciate the time and effort you gave as a witness before the Committee on Energy and Commerce.

Pursuant to Rule 3 of the Committee on Energy and Commerce, members are permitted to submit additional questions to the witnesses for their responses, which will be included in the hearing record. Attached are questions directed to you from certain members of the Committee. In preparing your answers to these questions, please address your response to the member who has submitted the questions in the space provided.

To facilitate the printing of the hearing record, please submit your responses to these questions no later than the close of business on Wednesday, March 30, 2022. As previously noted, this transmittal letter and your responses, as well as the responses from the other witnesses appearing at the hearing, will all be included in the hearing record. Your written responses should be transmitted by e-mail in the Word document provided to Ed Kaczmarski, Policy Analyst, at ed.kaczmarski@mail.house.gov. To help in maintaining the proper format for hearing records, please use the document provided to complete your responses.

Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Ed Kaczmarski with the Committee staff at (202) 225-2927.

Sincerely,

Frank Pallone, Jr.

Frank Pallone, Jr.
Chairman

Attachment

cc: The Honorable Cathy McMorris Rodgers
Ranking Member
Committee on Energy and Commerce

The Honorable Jan Schakowsky
Chair
Subcommittee on Consumer Protection and Commerce

The Honorable Gus Bilirakis
Ranking Member
Subcommittee on Consumer Protection and Commerce

Attachment—Additional Questions for the Record

Subcommittee on Consumer Protection and Commerce
Hearing on
"Holding Big Tech Accountable: Legislation to Protect Online Users"
March 1, 2022

Ms. Mutale Nkonde, Founder and CEO, AI for the People, US

The Honorable Bobby Rush (D-IL)

1. Ms. Nkonde, digital redlining — through the use of technology, alternative data sets, and social media behaviors — systematically suppresses the presentation of certain online and mobile advertisements to certain populations. While it is generally reasonable that advertisers want to deliver ads to a targeted audience who have a greater likelihood of buying their products and services, this type of targeting is problematic when it comes to, among other things, financial services. Controlling the ad delivery process through the use of certain variables can have the effect of discriminating against protected classes, in a manner that constitutes an Unfair, Deceptive or Abusive Act or Practice (UDAAP) or otherwise violates fair lending laws.

    a. What can be done to protect consumers seeking financial service products from online or mobile platforms using variables such as age and gender in their marketing algorithms in a manner that could result in individuals in protected classes being precluded from receiving advertisements for certain credit products?

RESPONSE:

Dear Congressman Rush,

Thank you for this important question. Digital redlining remains a constant problem. Redlining refers to a policy pursued by the Federal Housing Authority (FHA) and government backed Homeowners' Loan Corporation (HOLC) from 1934 – 1971. They would use red ink on maps to warm mortgage lenders against approving loans to people living in neighborhoods with sizable Black populations [1]. This isolated Black people within zip codes that suffered lower levels of investment and precluded Black families from building wealth through homeownership. Like its analogue equivalent digital or algorithmic redlining disadvantages Black Americans. However instead of its impact being limited to housing, because of the wide use of algorithmic decision-making technology across the economy[2], digital redline impacts Black consumers engaging with every part of the financial sector[3].

Below I will draw on two examples, one in which the source code of a website has been found to disadvantage Black consumers. The second where a group of researchers have found algorithmic bias within mortgage determinations.

In both cases the algorithms under consideration are protected by intellectual property laws. Therefore, consumers do not have the right to find out how these systems reached these determinations. The American people are therefore looking to Congress to:

- Ensure algorithmic determinations do not violate Section VII of the 1964 Civil Rights Act
- Develop enforcement mechanisms to ensure bad actors are held accountable and

- Educate consumers when and how algorithmic systems are being used within consumer sector.

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1 Perry A M & Hershberger D (October 14, 2019) America's formerly redlined neighborhoods have changed, and so must solutions to rectify them, Brookings, find the article here https://www.brookings.edu/research/americas-formerly-redlines-areas-changed-so-must-solutions/

2 McKinsey Global Institute (April 17, 2018) Notes from the AI frontier: Applications and value of deep learning, read the report here https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-applications-and-value-of-deep-learning

3 Perry A M & Hershberger D (October 14, 2019) America's formerly redlined neighborhoods have changed, and so must solutions to rectify them, Brookings, find the article here https://www.brookings.edu/research/americas-formerly-redlines-areas-changed-so-must-solutions/

Digital Redlining and Dark Patterns.

One of the largest issues facing consumers seeking online financial services are the presence of dark patterns. Dark patterns are software programs that software can subtly trick users into engaging in behavior that's good for the company. For example, in 2019 journalists at ProPublica, found the tax preparation website TurboTax.com was steering users who made less than $66,000 a year to their paid for products, despite having signed an agreement with the IRS to offer free tax preparation services to low income Americans.

The Pro Publica team found source code of the TurboTax website branded low-income consumers as "NONFFA." That stands for "Non-Free File Alliance." In other words, their technology was steering low-income consumers to paid for products, in doing so preventing them from accessing free tax filing services. This is in violation of the Unfair and Deceptive Practices Act and has a disparate impact on consumers from negatively racialized groups.

In 2018 the median household incomes of Black & Hispanic Americans, American Indians and Native and Alaskan people means people of color are more likely to qualify for free tax advice than white non-Hispanic Americans. Please see the table below:

Demographic	Median US Household income in 2018
Black American	$41,361[4]
Hispanic American	$51, 404[5]
American Indian and Alaska Natives	$49, 906[6]

[4] US Census Bureau: Income and Poverty in the United States in 2018

[5] ibid

[6] Ibid

White Americans	$70,642[7]

Therefore, consumers from negatively racialized communities are most like to enter "free tax preparation services" into online search. Given that Google controls 85 percent of the global search market[8], Black Americans are most likely to use Google search.

The Google business model is reliant on online advertising. In 2020 Alphabet Google's parent company generated $185 billion in revenue. $145 billion (or 80 percent of that total) came from the Google Ads business[9]. Google Ads generates income by allowing businesses to target users using search terms. For example, someone searching for "free tax advice: may not just be directed to the TurboTax website, but other online financial services that discriminate against Black Americans in the same way.

Digital Redlining and Mortgage Determinations

Another example of algorithmic bias within financial services are in the online mortgage market. A team of researchers at Haas School of Business found online and traditional lenders gave Black and Hispanic borrowers higher interest rates than their white counterparts. The additional interest rate points to mortgage cost Black and Hispanic borrowers an estimated $250 million to $500 million each year[10]. Despite the fact these groups have lower median household incomes than white non-Hispanic Americans.

Researchers found one of the reasons the mortgage algorithm being examined by the Berkley team discriminated against Black borrowers was because the developers used the "rate of comparison shopping" within its decision tree. This presents two ways this algorithmic system discriminates against Black people.

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[7] Ibid

[8] Statistica.com Worldwide desktop market share of leading search engines from January 2010 to January 2022 , find the data here https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/

[9] Graham M and Elias J (May 18, 2021) How Google's $150 billion advertising business works, find the article here https://www.cnbc.com/2021/05/18/how-does-google-make-money-advertising-business-breakdown-.html

[10] Counts L (November 13, 2018) Minority homebuyers face widespread statistical lending discrimination, study finds, Berkeley Haas blog, find the article here https://newsroom.haas.berkeley.edu/minority-homebuyers-face-widespread-statistical-lending-discrimination-study-finds/

The first is the nature of targeted advertising. I have pointed out Google's Ads allows businesses to target consumers using specific search terms. In 2021 another Berkley research team found 80 percent of residential areas in metropolitan areas are segregated by race[11]. Therefore, within the algorithmic era, zip code is an indicator of race.

- Many websites ask our permission to deny or allow them to track your location, when users check "yes" they are allowing businesses like Google pinpoint your geo location.
- If they are logging on from a zip code with high Black population, this allows advertisers to infer your race by combing your zip code with the other data they may have about it.
- During COVID lockdowns is likely you were logging on from home.
- Zip codes are mapped to census tract data giving computer scientists information on the median age, gender, household income, education, and health levels of the people within this location.

Then when we consider how the federal government racialized the housing market through redlining policies, zip code becomes proxy for race.

The same is true on the company side, Google Ads allows mortgage lenders to segment their audience by zip code. In 2019 the Department of Housing and Development (HUD) sued Facebook for allowing advertisers to use check boxes that prevent Black Americans from seeing housing ads[12]. It is therefore not a stretch to assume this happens within the mortgage lending sector. This type of online discrimination creates digital financial services desserts, akin to food deserts created in these areas through lack of access to fresh food. Either way Black consumers may not be given the same opportunity to see the same number of online mortgage ads as their white counterparts. It would therefore be harder for Black Americans to reach the comparison-shopping threshold set by the algorithmic mortgage lending tool examined by the Berkley team.

[11] NBC (August 16, 2021) U.S. neighborhoods are more segregated than a generation ago, perpetuating racial inequity, find the article here https://www.nbcnews.com/think/opinion/u-s-neighborhoods-are-more-segregated-generation-ago-perpetuating-racial-ncna1276372

[12] Tobin A (March 28, 2019) HUD Sues Facebook Over Housing Discrimination and Says the Company's Algorithms Have Made the Problem Worse, ProPublica, read the article here https://www.propublica.org/article/hud-sues-facebook-housing-discrimination-advertising-algorithms

The other way the "comparison-shopping determination" discriminates against Black Americans is that it assumes Americans are given equal access to mortgage loans.[13] However this is not true:

- In 2019 a team at the Mark Up team used the data available through the Home Mortgage Disclosure Act to find out how mortgage determinations were made.
- They found Black mortgage applicants in Chicago were 150 percent more likely to be denied a mortgage than their white counterparts, and Black Americans were 80 percent more likely to be denied a mortgage loan than their white counterparts nationwide.
- One of the reasons they cited this was Freddie Mac and Fannie Mae's use of the "Classic FICO" credit scoring algorithm, used to determine whether an applicant meets the minimum threshold to be considered for a conventional loan

The FICO algorithm was developed from data from the 1990s and is more than 15 years old. It is considered detrimental to people of color because it rewards traditional credit, to which White Americans have more access[14].

In a situation where Black consumers are more likely to be denied for credit than their white counterparts, they may choose not to opt to comparison shop because each time a mortgage lender makes a credit inquiry it reduces their FICO score[15]. Which in turn would reduce the likelihood of this borrower being granted a conventional mortgage. The team developing the mortgage determination algorithm did not consider how the history of racial discrimination within the United States shapes how Black financial behavior. Instead, they used this "comparison shopping" as an indicator for risk worthiness. Despite the fact it did not provide any insight to whether borrowers will pay back the loan.

This is an example of how subjective inputs lead to the development of algorithms that discriminate against not just Black Americans, but people from the protected classes.

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[13] Martinez E and Kirchner L (August 25, 2021) Denied The Secret Bias Hidden in Mortgage-Approval Algorithms, The Mark Up, read the article here https://themarkup.org/denied/2021/08/25/the-secret-bias-hidden-in-mortgage-approval-algorithms'

[14] Ibid

[15] White J (September 13, 2019) How Many Points Does an Inquiry Drop Your Credit Score? Experian blog, read it here https://www.experian.com/blogs/ask-experian/how-many-points-does-an-inquiry-drop-your-credit-score/

What congress can do to stop digital redlining

Congress can stop these deceptive and unfair practices in the following ways:

1. Pass the Algorithmic Accountability Act of 2022 into law; The act calls for companies to conduct impact assessments on their computer code and report to the FTC. If the algorithms have a negative impact on US citizens, then they will not be released onto the open market.

   The FTC is already asking companies to destroy algorithms that gather data through unethical practices. On March 4 the agency researched a settlement with WW International — formerly known as Weight Watchers — to destroy the algorithms or AI models it built using personal information collected through its Kurbo healthy eating app from kids. This practice could be extended through the passage of this Act.

2. Pass the Banning Surveillance Advertising Act into law; that would ban the type of targeted advertising that stops Black lenders from seeing mortgage products and give the FTC the power to enforce this law.

   These are two of the bills in front of the subcommittee for consumer protection on March 1, 2022 and ensure consumers from protected classes remain protected.