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Chairwoman Schakowsky and Members of the Committee, I thank you for the invitation to participate in today's hearing on Inclusion in Tech: How Diversity Benefits All Americans.

Technology is playing an increasingly important role in every second of our lives. I constantly marvel at the number of times I hear someone refer to a post they saw on Facebook or a tweet in the news. Google searches have become part of our daily routine. From toddlers to seniors, using smartphone apps or connected devices has become second nature to many Americans.

Social media apps can quite literally change how people feel. They can bring joy into our lives or sorrow and pain depending on what appears in a person's feed.

No two people are alike in their use of these technologies. Gender, age, race, ethnicity, sexual orientation, disability, religion, political beliefs, geographic location, and other factors can all dramatically change the way people interact with a product.

And yet the hundreds of thousands of people who are creating these technologies remain mostly homogenous. The tech industry continues to be populated by mostly white or Asian men. Diversity is an integral part of the fabric of America and yet it is not reflected in the companies that affect the lives of millions of this country's citizens. Underrepresented groups find themselves shut out of the development of products they use every day.

In my time inside of tech companies, I've seen firsthand the issues around diversity that continue to plague the industry.

Most recently, I served as Manager of Global Influencers at Facebook, based in its Silicon Valley headquarters. In this role, I facilitated the company's relationships with high-profile talent and notable figures from underrepresented backgrounds. Previously, I served as Head of Media for the popular social networking site Reddit and Manager of Journalism and News at Twitter. Prior to my transition into the tech industry, my career was in journalism, teaching newsrooms around the world how to connect with their communities through digital tools.

Prior to my departure from Facebook in November 2018, I published publicly an internal memo in which I outlined how the company was failing its black users and employees. This happened and continues to occur through systematic discrimination, silencing voices, unequal resources,

and other ongoing inconsistencies. Following the memo's publication, I received hundreds of emails and private messages from people working in tech and a wide variety of other unrelated industries. Many were encountering similar issues of discrimination in their own workplaces. Most had stayed quiet about their experiences. Others who worked in tech had walked away from the industry completely.

The concern surrounding the lack of diversity at U.S. technology companies is not just about the fair treatment of their employees. What is even more alarming is the inequalities in consumer technology that the deficiency is creating. Unfortunately, there is no shortage of examples of discrimination built into the products emerging from Silicon Valley companies.

BIAS IN PRODUCTS

- COMPAS, the artificial intelligence software used across the country by judges to determine if a convicted criminal is likely to commit more crimes, was found to be biased against minorities. The formula built into the product was particularly likely to falsely flag black defendants as future criminals, wrongly labeling them this way at almost twice the rate as white defendants, according to ProPublica.
- When Amazon's Prime same-day delivery service rolled out nationally in 27 metropolitan areas, it excluded ZIP codes that have predominantly black populations, according to an analysis by Bloomberg.
- Upon its release in 2014, Apple's HealthKit app enabled users to track a wide range of vital functions like sleep, blood pressure, calorie intake, respiratory rate, blood-alcohol level, and even copper intake. But it did not track menstrual cycles, one of the most fundamental parts of women's lives, until one year later.
- A widely circulated video on YouTube shows a "smart" soap dispenser that automatically detects when a hand is waved beneath its nozzle but appears to not work on black skin.
- The website for The Princeton Review's online SAT prep course listed prices that varied depending on the ZIP code of the user, according to another ProPublica investigation. Asians were nearly twice as likely to be charged a higher price, even if the income in their area was below average.
- Early versions of the image-recognition algorithm in Google's Photos app automatically labeled images of African-Americans as gorillas.
- FaceApp introduced filters in 2017 that allowed users to upload a selfie and select an Asian, Black, Caucasian, or Indian filter to change their racial appearance. The filters were decried as racially insensitive. FaceApp's "hot" filter was also taken down earlier that year after users discovered the filter was lightening their skin in an effort to make them look more attractive.

- Amazon found in 2015 that its recruiting tool for rating candidates for technical jobs had taught itself that male candidates were preferable. According to Reuters, it penalized resumes that included the word "women's" and downgraded graduates from all-women's colleges.
- Facebook's policy that requires users to include their "real name" in their profile was found to discriminate against Native American names which sometimes differ some standard Anglo-Saxon names. The policy also disproportionately affects transgender people who often don't use legal names for safety and privacy reasons. Users who violate the policy face having their account suspended.
- The use of Facebook's ad platform by Russian-backed organizations to create political tension in the U.S. has become the focus of intense scrutiny. In addition to this oversight, the platform also allowed its advertisers to target housing ads based on race and specifically exclude certain races from seeing housing ads, which is a federal crime.

In many of these instances, the transgressions were unintentional and later corrected. There are a number of reasons why some of these oversights happen, including over-reliance on algorithms, teams without diverse voices, or lack of input from communities of color. Incidents like these can result in poor publicity, alienating consumers, profit loss, and limited financial futures for American businesses small and large.

Many of the aforementioned products rely on artificial intelligence — the simulation of human intelligence processes by computer systems. A.I. is learning from the prejudices of its creators, the people from whom it collects information or both. If we allow these algorithms to be developed by a narrow range of people, the products on which they are built will inevitably reflect the biases of their creators.

Most of these oversights can be mitigated by employing and retaining staff from diverse backgrounds in an environment that welcomes all voices. Statistically, tech companies are not doing that.

In 2017, at eight of the largest tech companies in the U.S., women on average made up only 30.75 percent of staff, 4.2 percent were black and 6 percent were Latinx, according to self-reported numbers. While there's a disproportionately high number of Asians who work in tech, industry data shows they're the least likely to attain a leadership role.

THE "PIPELINE"

One of the common explanations of why there is a lack of diversity in Silicon Valley is the "pipeline." Tech companies argue that there are not enough women and people of color graduating with degrees in computer science. It is true that most of the graduates coming out of

computer science programs in the U.S. are white men. An increase in STEM education around the country, particularly in black and Latinx communities, will help close this gap.

However, there is more to this story. The percentage of women and people of color who are actually hired by tech companies is well below the number of those with tech-related degrees, many of whom graduate from top programs. More people from underrepresented backgrounds are graduating than are actually being hired.

In 2015, women constituted only 28 percent of workers in science and engineering occupations, even though they accounted for half of the college-educated workforce overall, data from the National Science Foundation shows. Black workers accounted for 5 percent of employment in science and engineering occupations and Hispanic workers accounted for 6 percent, far lower than their share of the U.S. population.

The discussions around the "pipeline" also ignore an obvious but overlooked fact: most jobs at tech companies are not in engineering. As of March 1, 2019, at least one-third of the jobs listed on the career websites of Microsoft, Google, Facebook, Adobe, Uber, Samsung, and more are on non-engineering teams.

There is a universe of roles on core teams like design, sales, finance, legal, marketing, business development, and research, among others. And yet women and people of color are missing from these roles as well. Furthermore, the points in the pipeline are far more institutional than tech companies admit to publicly.

A common practice at Silicon Valley companies, including my previous employers Facebook and Twitter, is the use of an internal tool through which employees can recommend friends and former colleagues for open positions. By submitting names and résumés through this system, current employees can fast track the application directly to recruiting teams. The applicant is given priority review and may receive a response from a recruiter in as little as 24 hours.

This may seem like an efficient way to identify qualified candidates. However, if the majority of the employees at tech companies are white and Asian, the candidate pool is highly likely to be more of the same. Past research has shown that a great majority of white Americans had no friends outside of their racial group. Silicon Valley is a self-contained bubble in which the majority of workers graduate from the same schools, live in the same cities, and share the same previous workplaces.

This system limits the success of applicants who come from outside of these circles. In an attempt to correct this imbalance, black and Latinx employees are highly encouraged to recommend applicants they may know. But given the ratio of applications being submitted by colleagues, qualified candidates from underrepresented backgrounds don't always make it through the initial stages of the recruiting process.

Many tech companies have expanded their recruiting efforts to diverse institutions and affinity groups. It is no secret though that they heavily recruit from the same small list of universities, all of which have a relatively low number of students from underrepresented backgrounds.

Some of the largest tech companies also partner directly with these few universities to inject their workflows and requirements into the curriculum. This gives an exclusive group of students an edge in the recruitment process and puts grads from other institutions at a disadvantage even if they have the skills required for the role.

Most tech companies have created programs that offer workshops, summits or internships specifically for underrepresented groups. There is a gap here as well. These programs usually focus on STEM and operate autonomously from the recruiting process or are surface level compared to the exclusive university partnerships.

The broken pipeline furthers into the interview process. There is a common refrain in Silicon Valley: "we can't lower the bar." This term is widely understood to infer that Black, Latinx, and women candidates are less qualified. Their hiring would be a token, putting them over more qualified white or Asian male candidates (who in some cases are actually equally or less qualified).

Executive leadership is made to strike an awkward balance. They want to further their diversity goals while not upsetting their core employee demographic. In lieu of quantifiable demographics like gender, race, age, or ethnicity, loosely defined goals such as "diversity of thought" or "diversity of opinion" are championed.

DISCRIMINATION AT WORK

Many tech companies would be far more diverse if employees from underrepresented backgrounds weren't leaving because of the ongoing bias they face. When women and people of color are hired, the numbers show they don't tend to stay.

In a Harvard Business Review study on tech, half of all diverse employees said they see bias as part of their day-to-day work experience. Members of majority groups continue to underestimate the bias diverse employees encounter every day. White heterosexual males, who occupy the bulk of leadership positions, were 13 percentage points more likely to say that the day-to-day experience and major decisions at their company are free of bias. The lack of empathy combined with the unwelcome environments diverse employees face leads many to leave the industry altogether.

The Center for Talent Innovation found that women in tech jobs in the U.S. leave the field at a 45 percent higher rate than men. Family reasons are thought to be the common reason for these departures. However, only 27 percent of women in one survey cited family as a primary reason for leaving.

A person over 40 at a tech company is a rarity and even more so if they are not in a managerial position. A study by Visier found that Baby Boomers aged 52 to 70 make up less than 12 percent of the tech workforce, far below the 27 percent represented in non-technical occupations. Those

older employees sometimes find they are subconsciously discriminated by their co-workers against because they are visibly dissimilar from the rest of the team.

The diversity reports issued by tech companies also fail to acknowledge that there is a disproportionate number of people of color in contract or contingent worker positions. This skewed classification is unintentionally creating a second-class system on Silicon Valley campuses. Few companies encapsulate this divide more than Facebook, where signs that read "Contractors = People" line the hallways. Contingent workers are excluded from benefits and amenities, prevented from attending company-wide meetings and events, and are even denied access to certain buildings open to all full-time employees. Diverse voices are quite literally shut out from the company.

Whether they are full-time or part-time, too many diverse employees around the country are facing microaggressions, discriminatory comments (made either knowingly or unknowingly), limited resources, denigration, exclusion, and countless other taxing encounters. In speaking about these issues, we risk impairing professional relationships, jeopardizing future opportunities, and losing out on what are among the most competitive salaries in the country.

Despite all these challenges, we are dope. We are thriving. We are changing the world. We know what our talents are and how they can affect change in the companies in which we work. We are not tokens. We are leaders impacting our communities, developing new technologies, executing the ideas that are transforming the landscape of technology and beyond. Our shine cannot be denied. Tech companies need to recognize the greatness or risk losing some of the industries' most brilliant minds.

Adorning product marketing materials with multicultural faces is not enough. There is an increasing pushback from people of color and women who reject products that don't take into account their needs and at worst make them difficult or problematic to use.

Black Americans have an estimated \$1.3 trillion in purchasing power, Latinx Americans have \$1.5 trillion, and the LGBTQ market is nearing \$1 trillion, according to Selig Center for Economic Growth. Women control an estimated two-thirds of the spending power in the U.S. Devaluing customers from underrepresented backgrounds comes at the detriment of American businesses.

Unless a company serves a completely homogeneous consumer base, it is placing itself at a competitive disadvantage by not having a representative workforce. The best companies, in tech or elsewhere, foster inclusion and in doing so strengthen the ability of teams to see the world from their customers' perspectives. Open discussions among people from varying backgrounds are what makes companies great. This leads to better problem-solving and more efficient product development, which translates to higher revenues and profits, expanded customer bases, and greater market share.

BUILDING BETTER BUSINESSES

A 2015 McKinsey study found that ethnically diverse companies were more than 35 percent more likely to outperform their industry counterparts. Companies in the top quartile for gender diversity are 15 percent more likely to have financial returns above their respective national industry medians. Companies in the bottom quartile both for gender and for ethnicity and race are statistically less likely to achieve above-average financial returns.

Leadership starts at the top. McKinsey also found that CEOs who increased the demographic diversity of their boards elicited higher profit margins for the company. Each 10 percent increase in racial and ethnic diversity on the senior executive team yielded on average a rise of 0.8 percent in earnings before interest and taxes. A study by Dow Jones of more than 20,000 venture-backed companies found that those companies with at least one woman executive were more likely to succeed than those with only men in leadership positions.

In order to be successful, tech companies need to approach diversity like they would any other business priority. It requires true commitment from executive leadership paired with tailored implementation strategies for the various teams within the organization. Top-performing companies set quantifiable goals and track their progress over time by establishing clear metrics and accountability. When organizations hold managers responsible for their diversity goal targets, they produce better results than organizations that rely on one-off diversity trainings.

Superficial proclamations from corporate leaders are not enough. It's time to stop saying "we can do better" and start being better. If tech companies have figured out how to launch self-driving cars, create virtual worlds, and how to bring internet to the furthest reaches of the planet, they can surely figure out how to make their workplaces more diverse.

WHAT'S NEXT

The smartest companies are already turning their missions into action. Tech giants are bringing on diverse board members and increasing their percentages of diverse employees, however marginally. In coordination with these efforts, they must take greater care to gather input from the communities who make their businesses possible. Establishing more regularly scheduled focus groups and product testing with underrepresented groups will offer even more insight on how to grow their platforms.

For Congress and this committee, more oversight of this nation's tech companies is absolutely necessary. Continuing to learn more about how the industry functions and hearings like this will lead to better economic solutions for all Americans.

I am here today because I, like many people in tech, care deeply about the companies in which we work and, by extension, the communities they affect. I applaud the work that diverse employees are doing and thank those in and around the tech industry whose efforts have moved the representation of diverse groups forward.

While it may seem like we live in fractured times, it is the ever-evolving digital technology around us that will continue to expose us to new ideas and bring this country together. Tech companies must do their part, step up, and reflect the ideals of equality, democracy, and justice for all on which this country was founded.

Thank you for this opportunity to share and I look forward to answering any questions you may have.