UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON EDUCATION AND LABOR JOINT HEARING OF SUBCOMMITTEE ON CIVIL RIGHTS AND HUMAN SERVICES

Hearing on *The Future of Work: Protecting Workers' Civil Rights in the Digital Age*

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February 5th, 2020

Washington, D.C.

Chair Suzanne Bonamici, ranking member, James Comer, and members of the Subcommittee, thank you for the opportunity to testify today. I am a professor at Cornell University ILR School and Cornell Law School, and a Faculty Associate at the Berkman Klein Center at Harvard University. I am here today in my personal capacity as a legal scholar. My research interests are in law and technology issues in the workplace, with a particular focus on the governance of emerging workplace technologies such as automated hiring and genetic testing as part of workplace wellness programs. The testimony that I offer here today is informed by my ongoing academic research for which I have received grants from the National Science Foundation (NSF) and the Robert Wood Johnson Foundation (RWJF).

I have been asked to testify on two topics: 1) employment discrimination and privacy concerns arising from automated hiring, including in particular the growing use of automated video interviewing; and 2) privacy and discrimination concerns related to the use of workplace wellness programs and electronic workplace surveillance.

A workplace in which humans have been fully replaced will not happen for many decades to come.[1] Rather, what will occur in the coming decades is a partially automated workplace, where human workers will have to contend with automation at every step of the employment process; from hiring to evaluation and even dismissal.[2] Also, while the gig economy does raise novel legal

[1] David H Autor, *Why Are There Still So Many Jobs? The History and Future of Workplace Automation*, 29 J. OF ECON. PERSP. 3 (2015)

[2] BRETT FRISCHMANN & EVAN SELINGER, RE-ENGINEERING HUMANITY (2018); Ifeoma Ajunwa, *Algorithms at Work: Productivity Monitoring Applications and Wearable Technology*, 63 ST. LOUIS U. L. J. 21 (2019); Seb Murray, *Will a Robot Recruiter be Hiring you for your Next Job?*, THE GUARDIAN (February 2, 2018), https://www.theguardian.com/careers/2018/feb/02/will-a-robot-recruiter-be-hiring-you-for-your-next-job; Colin Lecher, *How Amazon Automatically Tracks and Fires Warehouse Workers for 'Productivity'*, THE VERGE (Apr. 25, 2019), https://www.theverge.com/2019/4/25/18516004/amazon-warehouse-fulfillment-centers-productivity-firing-terminations.

issues as to worker rights and protections,[3] these new types of business organizations still represent only approximately 1 percent of the American workforce,[4] much more common are traditional workplace employer-employee arrangements. Thus, the issues I raise today are associated with traditional employment workplaces and these issues combine to form a socio-technical phenomenon that I term "the quantified worker." The "quantified worker" references a worker experience in which the worker is subjected to minute quantifications of worker fit, worker productivity, and worker wellness, all aided by new and emerging work technologies.[5] I argue that the future of work, with its novel technological advancements, brings with it a quantification of the worker, in a manner and to a degree, previously unseen in history, and as such, new laws and regulations are needed to protect not just the American ideal of equal opportunity in employment but also to preserve the dignity of all workers.

Part I below summarizes broader issues of inequality associated with automated hiring and how they might impede the American goal of equal opportunity in employment. Part II, then offers three proposals to ensure that automated hiring allows for equal access to employment. Those proposals include: 1) the addition of a third cause of action for Title VII, i.e., the *discrimination per se* doctrine; 2) a federal mandate for audits of automated hiring platforms; and 3) required data-retention and record-keeping design features for automated hiring systems.[6] In Part III, I discuss workplace wellness programs and concerns regarding their collection and use of employee health data. I situate workplace wellness programs within a larger paradigm of workplace monitoring evolving from the Taylorist practices of the early 20th century and note that the proposed collection of genetic data as part of workplace wellness programs would erode the protection afforded workers by both the Genetic Information Non-Discrimination Act (GINA) and the Americans with Disabilities Act (the ADA). In Part IV, I offer two proposals for the protection of employee data. Those proposals include: 1) a sector-specific Employee Privacy Protection Act (EPPA), which would prohibit workplace surveillance practices that extend outside of work-related locations or activities; and (2) the data sensitivity-specific Employee Health Information Privacy Act (EHIPA), which would protect the most sensitive type of employee data, specifically health and genetic data collected as part of workplace wellness programs.[7]

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[3] MARY GRAY AND SIDDHARTH SURI, GHOST WORK: HOW TO STOP SILICON VALLEY FROM BUILDING A NEW GLOBAL UNDERCLASS (2020); LOUIS HYMAN, TEMP: THE REAL STORY OF WHAT HAPPENED TO YOUR SALARY, BENEFITS, AND JOB SECURITY (2018); Devault, I. A., Figueroa, M., Kotler, F. B., Maffie, M., & Wu, J. (2019). *On-Demand Platform Workers In New York State: The Challenges For Public Policy* [Electronic Version]. Ithaca, NY: The Worker Institute, ILR School, Cornell University. Retrieved February 3rd, 2020 FROM CORNELL UNIVERSITY, ILR SCHOOL SITE: HTTPS://DIGITALCOMMONS.ILR.CORNELL.EDU/REPORTS/67/

[4] *See* Larry Katz & Alan Krueger, *The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015*, 72 ILR REVIEW 382 (2017).

[5] IFEOMA AJUNWA, THE QUANTIFIED WORKER (under contract with Cambridge University Press, forthcoming 2020).

[6] These proposals are developed in detail in two of my papers: Ifeoma Ajunwa, *Automated Employment Discrimination*, SSRN (2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3437631; Ifeoma Ajunwa, *The Paradox of Automation as Anti-Bias Intervention*, 41 CARDOZO. L. REV. (forthcoming 2020), https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2746078;

[7] These proposals are developed in greater detail in: Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735 (2017).

PART I: AUTOMATED HIRING AND INEQUALITY

Automated hiring is increasingly the gatekeeper to employment in the United States. Automated hiring refers to a wide range of technologies that companies use today to find potential employees, collect and store information about them, and evaluate their ability to perform. These platforms allow companies to automate the recruiting and hiring process, and today there are hundreds of vendors developing various kinds of software for conducting different aspects of recruitment such as screening candidates, applicant testing, scheduling interviews, tracking candidates, checking references, and completing new-hire paperwork.[8] According to some employers, these new technologies are automating recruitment processes that were previously performed manually, eliminating inefficiencies and boosting productivity.[9]

Important questions have been raised about the reliability of these systems, and if they bring a high return on investment.[10] According to a survey by Paychex in 2019, 72% of US Human Resource (HR) leaders reported that recruiting technology enabled them to reach high-quality candidates and 45% of them plan to increase financial investment in these technologies.[11] Another survey conducted by Korn Ferry found that over 69% of recruiters surveyed asserted that automated hiring platforms enabled them to find more qualified candidates.[12] However, even amid this perceived efficiency of automated hiring, recent headlines raise the alarm about the potential for automated hiring to enable employment discrimination and deepen the gulf of economic inequality in our society.

A. A Brief History of The Development of Automated Hiring Platforms

Automated hiring sites like Monster.com emerged on the web in 1994 to provide searchable job ads taken from newspapers.[13] Initially, job openings were advertised in newspapers and applications were submitted by hand or mail, then employers would manually sift through the typewritten resumes, shortlist candidates, interview, and select the most qualified individuals.[14] Monster changed the way people searched and applied for jobs and enabled companies to speed

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[8] *Applicant Tracking Systems (ATS) Market Analysis and Segment Forecast To 2026*, REPORTS AND DATA (2019), https://www.reportsanddata.com/report-detail/applicant-tracking-system-ats-market.
[9] Roy Maurer, *The Robots Are Already Here: How Automation Will Shake Up* Recruiting, SOC'Y FOR HUM. RESOURCE MGMT. (2018).
[10] *Applicant Tracking Systems (ATS) Market Analysis and Segment Forecast To 2026*, REPORTS AND DATA (2019), https://www.reportsanddata.com/report-detail/applicant-tracking-system-ats-market.
[11] *2019 Paychex Pulse of HR Survey: A Focus on Technology and Talent*, PAYCHEX, INC. (2019), https://www.paychex.com/secure/whitepapers/hr-pulse-2019.
[12] *Korn Ferry Global Survey: Artificial Intelligence (AI) Reshaping the Role of the Recruiter*, KORN FERRY (Jan. 18, 2018), https://www.kornferry.com/press/korn-ferry-global-survey-artificial-intelligence-reshaping-the-role-of-the-recruiter.
[13] Dylan Walsh, *Don't Let Artificial Intelligence Pick Your Employees*, STAN. GRADUATE SCH. BUS. (Feb. 8, 2019), https://www.gsb.stanford.edu/insights/dont-let-artificial-intelligence-pick-your-employees.
[14] Robert J. Lavigna & Steven W. Hays, *Recruitment and Selection of Public Workers: An International Compendium of Modern Trends and Practices*, 33 PUB. PERSONNEL MGMT. 237 (2004).

up the pace of recruitment.[15] Starting in the late 1990s, when employers faced tight labor market conditions, employers tried to make the sourcing process more efficient by putting simplified applications online and then managing them with applicant tracking software.[16][17] This caused a surge in the number of applications received by employers as job posts that historically received 20 applications were suddenly receiving hundreds of resumes in a matter of minutes.[18] *Brassring* (now acquired by IBM) was one of the pioneer ATS platforms created in 1998 followed by *recruitsoft* (now Taleo) in 1999. Since then, Taleo has sustained dominance of the market and has along with other players extended their service to include full suites of HR software.[19]

By the mid-2000s, the recruiting process transformed as social networks surfaced as a channel for sourcing candidates with *LinkedIn* and *Indeed* leading the pack in 2003 and 2004 respectively. Following the 2008 recession, employers intent on minimize spending began to use tools like *Skype* and *Hirevue* to conduct standardized video interviews and *HireIQ* for automated telephone interviews that are taped and assessed for personality and other attributes.[20] Even virtual reality tools, a leap from gamified assessments, are now being used by companies to provide immersive job previews to applicants during the hiring process.[21] With the introduction of technologies in recruitment and the unending desire for efficiency, automated hiring platforms (AHPs) have grown and evolved expanding the purview from sourcing to actual selection.[22] In 2000, the Electronic Recruiting Index (ERI) reported a substantial increase in spending on electronic recruiting from $4.5 billion in 1998 to over $15 billion in 1999.[23]

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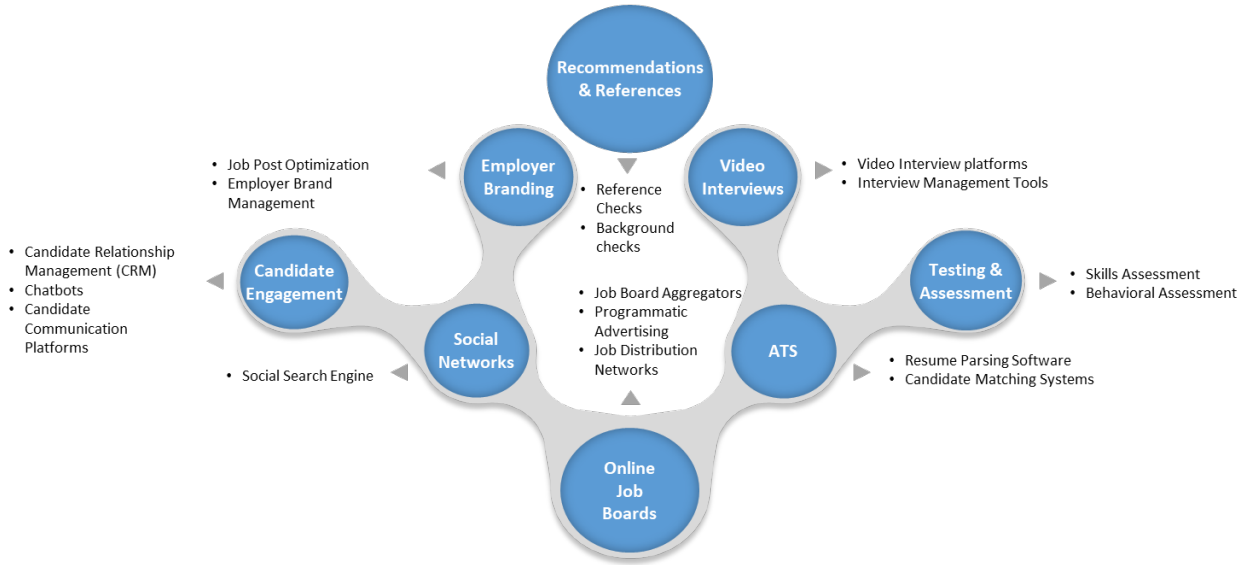
[15] Michael Overell, *The History of Innovation in Recruitment Technology and Services*, TECHCRUNCH (Oct. 29, 2016), https://techcrunch.com/2016/10/29/the-history-of-innovation-in-recruitment-technology-and-services/.
[16] Peter Cappelli, *We Can Now Automate Hiring. Is that Good?*, HARV. BUS. REV. (Dec. 12, 2013), https://hbr.org/2013/12/we-can-now-automate-hiring-is-that-good.
[17] Lamees Abourahma, *Interview: Tricia Tamkin on Talent Acquisition Technology*, RECRUITMENT PROCESS OUTSOURCING ASS'N (Nov. 2, 2017), https://blog.rpoassociation.org/blog/interview-tricia-tamkin-on-talent-acquisition-technology.
[18] Dylan Walsh, *Don't Let Artificial Intelligence Pick Your Employees*, STAN. GRADUATE SCH. BUS. (Feb. 8, 2019), https://www.gsb.stanford.edu/insights/dont-let-artificial-intelligence-pick-your-employees.
[19] Michael Overell, *The History of Innovation in Recruitment Technology and Services*, TECHCRUNCH (Oct. 29, 2016), https://techcrunch.com/2016/10/29/the-history-of-innovation-in-recruitment-technology-and-services/.
[20] Peter Cappelli, *We Can Now Automate Hiring. Is that Good?*, HARV. BUS. REV. (Dec. 12, 2013), https://hbr.org/2013/12/we-can-now-automate-hiring-is-that-good.
[21] Lin Grensing-Pophal, *Providing Realistic Job Previews Through 360-Degree Video*, SOC'Y FOR HUM. RESOURCE MGMT (Mar. 30, 2018).
[22] Dylan Walsh, *Don't Let Artificial Intelligence Pick Your Employees*, STAN. GRADUATE SCH. BUS. (Feb. 8, 2019), https://www.gsb.stanford.edu/insights/dont-let-artificial-intelligence-pick-your-employees.
[23] Dave Bartram, *Testing on the Internet: Issues, Challenges and Opportunities in the Field of Occupational Assessment*, *in* COMPUTER-BASED TESTING AND THE INTERNET: ISSUES AND ADVANCES 13 (2005).



Overview of the Evolution of Hiring Platforms

B. Does automated hiring eliminate or exacerbate bias?

One common thinking regarding automated hiring is that it eliminates human bias and thus results in hiring outcomes less prejudiced than when hiring is conducted by humans.[24] This sentiment is driven in large part by a belief in data objectivity, that is the unquestioning belief that large numbers of data will return accurate results.[25] Concomitant with the belief in data objectivity is an uncritical acceptance of decisions derived from big data driven algorithmic systems.[26] As scholars like, Professor Anupam Chander have emphasized, although computerized algorithms are perceived as impartial because computers operate on logic, their results may still bear the traces of real world discrimination.[27] Chanders notes that "[a]lgorithms trained or operated on a real-world data set that necessarily reflects existing discrimination may well replicate that discrimination."[28]

Recent headline-making news prove this point. For example, in 2018, it was revealed that Amazon's engineering team in Edinburgh, Scotland, had inadvertently created an automated hiring system which favored men.[29] The creators of the system had used computer models to "trawl

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[24] "Advocates applaud the removal of human beings and their flaws from the assessment process . . . ." Algorithms or automated systems are often seen as fair because they are "claimed to rate all individuals in the same way, thus averting discrimination." Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 WASH. L. REV. 1, 4 (2014).

[25] danah Boyd & Kate Crawford, *Critical Questions for Big Data*, 15 J. INFO. COMM. & SOC'Y 662 (2012).

[26] *See, e.g.*, Chris Anderson, *The End of Theory: The Data Deluge Makes the Scientific Method Obsolete*, WIRED (June 23, 2008), https://www.wired.com/2008/06/pb-theory/
(arguing that "correlation is causation" and that the scientific method is now defunct).

[27] *See* Anupam Chander, *The Racist Algorithm?*, 115 MICH. L. REV. 1023, 1041 (2017).

[28] *Id.* at 1036 (2017).

[29] Isobel Asher Hamilton, *Amazon Built an AI Tool to Hire People but Had to Shut It Down Because It Was Discriminating Against Women,* BUS. INSIDER (Oct. 10, 2018), www.businessinsider.com/amazon-built-ai-to-hire-people-discriminated-against-women-2018-10.

through past candidates' résumés and pick up on about 50,000 key terms."[30] Using those selected key terms, "the system would crawl the web to recommend candidates."[31] Although it is not certain how the creators of the system went wrong, one plausible explanation is that the system had been trained on the resumes of high performing workers (which in a workplace that had predominantly male workers would also be resumes of mostly male workers) and that the machine learning system had then deduced that men were preferred applicants. Thus, the system "downgraded résumés containing the words 'women's' and filtered out candidates who had attended two women-only colleges."[32]

But automated hiring can also be intentionally deployed to exclude segments of the labor force. This has been found to be true for age discrimination in employment.[33] For example, following the complaint of an Illinois man who could not complete an automated hiring application due to built-in age restrictions on the online platform, the Attorney General of Illinois launched an investigation which revealed that several online automated hiring platforms had design features that dissuaded older applicants, in violation of the Age Discrimination in Employment Act (the ADEA).[34] Likewise, other federally unprotected populations, such as caregivers and formerly incarcerated citizens might find themselves summarily dismissed by automated hiring systems programmed to cull applicants with gaps in employment.[35]

In my research, I identify four major problems with automated hiring: 1) the design features of automated hiring platforms may enable them to serve as culling systems that discreetly eliminate applicants from protected categories without retaining a record; 2) automated hiring systems that allow for the deployment of facially neutral variables that are indeed still proxies for protected categories, like gender or race, may be used to justify biased employment results as objective; 3) intellectual property law, which protects automated hiring systems from scrutiny, allows discriminatory practices to go undetected; and 4) a worker lack of control over the portability of applicant data captured by automated hiring systems increases the chance of repeated employment discrimination, which could result in certain classes of job applicants being *algorithmically blackballed*.[36]

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[30] *Id.*
[31] *Id.*
[32] Ironically, the automated hiring system revealed workplace gender disparity here in concrete numbers. This is more difficult to do with traditional hiring. This demonstrates that automated hiring, with the proper governance, could be a boon to anti-discrimination law goals. Contrast this to what the legal scholar Professor Jessica Fink has identified as the more nebulous "gender-sidelining," a workplace dynamic in which, for example, "women often lack access to important opportunities or feel subjected to greater scrutiny than their male peers." *See* Jessica Fink, *Gender Sidelining and the Problem of Unactionable Discrimination*, 29 STAN. L. & POL'Y REV. 57, 57 (2018).
[33] Ifeoma Ajunwa, *Age Discrimination by Platforms*, 40 Berkeley J. Emp. & Lab. L.1 (2019).
[34] Letters from Lisa Madigan, Att'y Gen., Ill., to Online Hiring Agencies (Mar. 1, 2017), https://media.npr.org/assets/news/2017/03/letters.pdf.; *See also*, Ina Jaffe, Older Workers Find Age Discrimination Built Right into Some Job Websites, NATIONAL PUBLIC RADIO: ALL THINGS CONSIDERED (Mar. 28, 2017), https://www.npr.org/2017/03/28/521771515/older-workers-find-age-discrimination-built-right-into- some-job-sites.
[35] Ifeoma Ajunwa & Daniel Greene, *Platforms at Work: Automated Hiring Platforms and Other New Intermediaries in the Organization of Work*, in WORK AND LABOR IN THE DIGITAL AGE 61 (Stephen P. Vallas & Anne Kovalainen eds., 2019).
[36] These problems are discussed in greater detail in Ifeoma Ajunwa, *Automated Employment Discrimination*, SSRN (2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3437631.

C. Automated video-interviewing: newest trend in hiring and greatest privacy and discrimination risk

Automated video-interviews represent the newest trend in automated hiring. This technology captures candidates' responses to pre-recorded interview questions and assesses them based on their word choices, speech patterns, and facial expressions to determine their fit for the job position and the company's culture.[37] A survey of 506 companies in 2011 showed that 47% use video interviewing to shorten the hiring timeframe and save costs, and 22% would consider it for interviewing non-local candidates. And more recently in 2018, 60% of organizations surveyed confirmed that they are turning to video interviews for recruitment.[38] Below is a quick survey of companies producing automated video-interviewing algorithmic systems:

1. ***HireVue:*** A pioneer in video interviewing and a platform for applicant management, candidate assessment and video interviewing that promises employer benefits of 24% cost savings and 25-40% time savings.[39] The claim is that this technology captures more than a million meaningful data elements about a job candidate in each minute of video and can tell managers things about candidates' truthfulness and confidence in answering questions. HireVue records candidates' responses to preset questions and then analyzes and scores them based on tone, body language, and keyword[40] and criteria that are proven to be predictive of job performance.[41] This platform is mostly used by organizations in retail, customer service, and hospitality for volume hiring. HireVue now has more than 600 customers and has delivered more than 5 million video interviews.[42] Some clients include Tiffany & Co., Hilton, Unilever, Oracle, HBO, Dow Jones, and Staples, etc.[43]
2. ***Talview*****:** An AI-enabled video interviewing technology used by many Fortune 500 companies and clients across more than 102 countries.[44] Popular clients include Amazon, Societe Generale, DHL, UNICEF, Deloitte, and Sephora, among others.[45]
3. ***Spark Hire*****:** A popular video interviewing software with over 5000 customers that uses on-demand video interviews to screen job candidates and help recruiters identify the best

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[37] *How AI Changes Recruiting Strategies Right Now*, RECRUITMENT PROCESS OUTSOURCING ASS'N (Oct 10, 2019), https://blog.rpoassociation.org/blog/how-ai-changes-recruiting-strategies-right-now.
[38] Nilam Oswal, *The Latest Recruitment Technology Trends and How to Really Use Them,* PC WORLD (February 9, 2018).
[39] Talent Function & The Talent Board, *Digital Interviewing: The Voice of The Candidate*, HIREVUE (2014), http://www.thetalentboard.org/wp-content/uploads/2014/06/Digital-Interviewing-The-Voice-of-the-Candidate.pdf.
[40] Dandan Chen, Pedro Galicia, Daniel Manjarrez, & Lauren Sims, *The Growing Role of Technology in Talent Acquisition*, ILR SCHOOL: CURRENT ISSUES AND TRENDS IN HUMAN RESOURCES (Feb. 2018).
[41] *Recruiting Software – All You Need to Know*, HARVER (2019), https://harver.com/blog/recruiting-software/.
[42] Josh Bersin, *AI Comes To Recruiting: Will Interviews Go The Way Of The Dinosaur?*, JOSH BERSIN (Nov. 9, 2018), https://joshbersin.com/2018/11/ai-comes-to-recruiting-will-interviews-go-the-way-of-the-dinosaur/.
[43] *Customers,* HireVue (2019), https://www.hirevue.com/customers.
[44] *Top 36 Pre-Employment Assessment Tools*, ACADEMY TO INVIGORATE HR (AIHR) DIGITAL (Dec. 2019), https://www.digitalhrtech.com/top-pre-employment-assessment-tools/.
[45] *Our Customers*, TALVIEW (2019).

candidates for a job earlier in the hiring process. Popular clients include the United States Postal Service, IKEA, Volkswagen, and Chick-fil-A.[46]

4. ***Wepow*:** This technology allows employers to pre-record or schedule live video interviews with candidates and compare and rank them based on predefined criteria. It also analyzes the recruitment process and highlights areas for improvement. Top customers include Heineken, Genentech, Virgin Atlantic, Walmart, Adidas, and many more.[47]

As experts have noted, video interviewing could enable employment discrimination since many of these types of systems are trained on white male faces and voices.[48] This would disadvantage both racial minorities and white women as their facial expressions and tone of voice might be misinterpreted.[49] Other issues associated with automated video interviewing systems include the unregulated collection of the applicant's personal data and the "black box"[50] nature of how such information is used by employers and others. Dan Lyons warns us in his book, *Lab Rats*: "HireVue's robot recruiting system is building a database of deep, rich psychographic information on millions of people. Moreover, the data is not anonymous. Your psychographic blueprint is connected to all of your personal information—name, address, email, phone number, work history, education. And they have you on video. Everything you say in an interview can follow you around for the rest of your life."[51] Still, to date, there are no federal regulations as to the collection, storage, or use of data from automated hiring platforms, including video interviewing.

PART II: SOME PROPOSALS FOR GOVERNING AUTOMATED HIRING

A. Discrimination Per Se

Title VII requires intent for liability to attach, or in the absence of intent a clear demonstration of disparate impact with no excuse of business necessity for the disparity.[52] When bringing disparate impact claims, plaintiffs are likely to face challenges. For one, "courts are inconsistent in addressing the requirement of compiling appropriate statistics to show that a policy has a disparate impact."[53] To address the difficulties associated with enforcing protections against employment discrimination, I propose a new burden-shifting theory of liability, *discrimination per*

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[46] *Hear it from our Happy Customers,* SPARK HIRE (2019).
[47] *Your Success is Our Success…We Power You,* WEPOW, LLC (2018).
[48] Tess Townsend, *Most Engineers Are White and So Are the Faces That They Use to Train Software*, VOX: RECODE (Jan. 18, 2017, 11:45 AM), https://www.vox.com/2017/1/18/14304964/data-facial-recognition-trouble-recognizing- black-white-faces-diversity. "A lack of diversity in the training set leads to an inability to easily characterize faces that do not fit the normal face derived from the training set." *Id.*
[49] Thor Benson, *Your Next Job Interview Could Be with a Racist Bot*, DAILY BEAST (Apr. 20, 2018, 11:01 PM), https://www.thedailybeast.com/your-next-job-interview-could-be-with-a- racist-bot.
[50] *See* FRANK PASQUALE, THE BLACK BOX SOCIETY: SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION (2015) (arguing that unregulated and opaque data collection is contributing to social inequality).
[51] DAN LYONS, LAB RATS: HOW SILICON VALLEY MADE WORK MISERABLE FOR THE REST OF US (2019).
[52] Proving clear intent is necessary when attempting to make a disparate treatment case under Title VII. However, under the disparate impact of clause of action codified in Title VII, the intent is implied from an established pattern. *See* U.S. Civil Rights Act of 1964 §7, 42 U.S.C. §2000e-2(1)(A).
[53] *See, e.g.*, Charles A. Sullivan, *Disparate Impact: Looking Past the Desert Palace Mirage*, 47 WM. & MARY L. REV. 911, 989 (2005).

se.[54] The proposed new doctrine of *Discrimination per se* would allow for a third cause of action under Title VII.[55] The aim here is to ensure that employment discrimination plaintiffs who have difficulty obtaining the means to show statistical proof of disparate impact can still bring suit. Under the proposed discrimination per se doctrine, a plaintiff can assert that a hiring practice (for example, the use of proxy variables resulting or *with the potential to result in* adverse impact to protected categories) is so egregious as to amount to *discrimination per se*, and this would shift the burden of proof from the plaintiff to the defendant (employer) to show that its practice is non-discriminatory.[56] I do not set forth a specific rule or standard for how to determine *discrimination per se*, rather, I think this is a question that, as has been done for other American legal doctrines, should be generated through case law.

In the case of automated hiring systems, employers have an obligation not to unlawfully discriminate against applicants, as proscribed by Title VII of the Civil Rights Act and other federal antidiscrimination laws. Furthermore, as I also propose, if self-audits or external audits of hiring algorithms become mandated by law,[57] then it follows that when an employer willfully neglects to audit and correct its automated hiring systems for unlawful bias, a *prima facie* (meaning an initial finding of) intent to discriminate could be implied, pursuant to the proposed doctrine of *discrimination per se*. Consider that some corporations make use of bespoke internal hiring algorithms, such that no one, except the corporation, has access to the hiring algorithm(s) and the results—meaning then that only the corporation could know of any problems of bias.

Adoption of the *discrimination per se* doctrine would raise two issues: 1) The first one is establishing a standard for when the doctrine might apply; 2) The second is whether it imposes an onerous burden on employers. Regarding the first, it is up to the courts to establish clear precedents for when the doctrine applies. Regarding the burden on employers, automated hiring is a cost-saving measure and employers save both money and time by using it. However, just like an employer must supervise its human hiring managers, there remains, still, an obligation to audit automated hiring systems for bias. This burden is not excused because the hiring intermediary is an automated system.[58] The doctrine of *discrimination per se* will ensure that employers are adopting responsible hiring practices.

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[54] I provide the details of this proposed legal doctrine in: Ifeoma Ajunwa, *The Paradox of Automation as Anti-Bias Intervention*, 41 CARDOZO. L. REV. (forthcoming 2020), Although my proposed doctrine borrows from tort theory, it is important to note that the National Labor Relations Act already characterizes some employer actions as per se violations. National Labor Relations Act, 29 U.S.C. § 158 (2012). https://www.natlawreview.com/article/employer-policies-may-be-se-violations-national-labor-relations-act-nlra.

[55] Title VII of the Civil Rights Act protects the job applicant against discrimination on the basis of sex, race, color, national origin, and religion. *See* U.S. Civil Rights Act of 1964 §7, 42 U.S.C. §2000e (2012). In addition to showing intentional discrimination, plaintiffs may also argue that "a respondent uses a particular employment practice that causes a disparate impact on the basis of [a protected characteristic] and the respondent fails to demonstrate that the challenged practice is job related for the position in question and consistent with its business necessity." *See* U.S. Civil Rights Act of 1964 §7, 42 U.S.C. § 2000e-2(k)(1)(A)(i).

[56] Note that my proposal builds on the work of other legal scholars. *See, e.g.,* James Grimmelmann & David Westreich, *Incomprehensible Discrimination*, 7 CAL. L. REV. ONLINE 164, 170 (2017) ("Applicants who are judged and found wanting deserve a better explanation than, 'The computer said so.'"

[57] Ifeoma Ajunwa, *Automated Employment Discrimination*, SSRN (2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3437631.

[58] Professor Julie Cohen has been an early and constant voice calling for the adequate governance of emerging technologies. *See, e.g.,* Julie E. Cohen, *Law for the Platform Economy*, 51 U.C. DAVIS L. REV. 133, 189 (2017); JULIE COHEN, BETWEEN TRUTH AND POWER: THE LEGAL CONSTRUCTIONS OF INFORMATIONAL CAPITALISM (2019).

B. Audit and Certification Requirements

The auditing of automated decision-making systems is an idea that is gaining ground.[59] This is especially true in regard to employment decision-making. As some experts have noted: "AI is not impartial or neutral" and furthermore "in the case of systems meant to automate candidate search and hiring, we need to ask ourselves: What assumptions about worth, ability and potential do these systems reflect and reproduce?"[60] Considering that systems like HireVue are proprietary and not open to review, it is virtually impossible to validate their claims of fairness from a distance.[61] Thus, the need for audits by experts, advocacy groups, and academia.[62]

I propose that corporations employing automated hiring systems should be mandated to engage in *both* internal and external audits of such systems, and I lay out the case for each type of audit in the following sections.

1. Internal self-audits:

Internal audits to check automated hiring systems is part of an employer's duty to fulfill the spirit of antidiscrimination laws.[63] Thus, employers should implement a business system of regular

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[59] Pauline Kim, *Auditing Algorithms for Discrimination*, 166 U. PA. L. REV. 189 (2017) (proposing the retention of audits of automated decision-making to check for discrimination); Julie E. Cohen, *The Regulatory State in the Information Age*, 17 THEORETICAL INQUIRIES L. 369, 372–73 (2016) ("[P]olicymakers must devise ways of enabling regulators to evaluate algorithmically-embedded controls . . . ."); Deven R. Desai & Joshua A. Kroll, *Trust But Verify: A Guide to Algorithms and the Law*, 31 HARV. J.L. & TECH. 1, 16–17 (2017) (discussing designing algorithmic systems to enable audits by regulators); Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 WASH. L. REV. 1, 24–25 (2014) (proposing that the FTC audit consumer scoring systems); Frank Pasquale, *Beyond Innovation and Competition: The Need for Qualified Transparency in Internet Intermediaries*, 104 NW. U. L. REV. 105, 169–71 (2010) (calling for monitoring of search engines and considering the possibility of the FTC playing that role); W. Nicholson Price II, *Regulating Black-Box Medicine*, 116 MICH. L. REV. 421, 464 (2017) (calling for greater FDA and third-party scrutiny of medical algorithms); Paul Schwartz, *Data Processing and Government Administration: The Failure of the American Legal Response to the Compute*r, 43 HASTINGS L.J. 1321, 1325 (1992) (calling for "independent governmental monitoring of data processing systems"); Rory Van Loo, *Helping Buyers Beware: The Need For Supervision of Big Retail*, 163 U. PA. L. REV. 1311, 1382 (2015) (proposing that the FTC monitor Amazon); Shlomit Yanisky-Ravid & Sean K. Hallisey, *"Equality and Privacy by Design": A New Model of Artificial Intelligence Data Transparency Via Auditing, Certification, and Safe Harbor Regimes*, 46 FORDHAM URB. L.J. 428, 429 (2019) (proposing "an auditing regime and a certification program, run either by a governmental body or, in the absence of such entity, by private institutions"); *see also* Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 121–24 (2014) (considering auditing by public agencies to address predictive privacy).

[60] Eric Rosenbaum, *Silicon Valley Is Stumped: Even A.I. Cannot Always Remove Bias from Hiring*, CNBC (May 30, 2018), https://www.cnbc.com/2018/05/30/silicon-valley-is-stumped-even-a-i-cannot-remove-bias-from-hiring.html.

[61] *See* Eric Rosenbaum, *Silicon Valley Is Stumped: Even A.I. Cannot Always Remove Bias from Hiring*, CNBC (May 30, 2018), https://www.cnbc.com/2018/05/30/silicon-valley-is-stumped-even-a-i-cannot-remove-bias-from-hiring.html.

[62] *Id.*

[63] Richard Thompson Ford, *Bias in the Air: Rethinking Employment Discrimination Law*, 66 STAN. L. REV. 1381 (2014) (arguing that employment law imposes a duty of care on employers to refrain from practices that go against equal opportunity in employment). *See also*, Robert Post, Lecture, *Prejudicial Appearance: The Logic of American Antidiscrimination Law*, 88 CALIF. L. REV. 1 (2000), (arguing that antidiscrimination law aims to achieve positive interventions in social practices as opposed to solely dictating prohibitions). Other professors have also used a "duty of care" framework to propose remedial measures for employment discrimination. *See*, David Benjamin Oppenheimer, *Negligent Discrimination*, 141 U. PA. L. REV. 899 (1993); Noah D. Zatz, *Managing the Macaw:*

self-audits of their hiring outcomes to check for disparate impact. This system of mandated self-audits would be similar to the mandated self-audits of financial institutions under the Sarbanes-Oxley Act.[64] In an internal audit activity, self-auditing, or self-assessment, a "department, division, team of consultants, or other practitioner(s) [provide] independent, objective assurance and consulting services designed to add value and improve an organization's operations."[65] Standards and best practices already exist for conducting an effective internal audit.[66] As an international professional association, the Institute of Internal Auditors (IIA) gives guidance on internal auditing.[67]

Self-auditing is also conducted and recommended in other types of industries, such as manufacturing sectors, because it helps the businesses meet the requirements of relevant laws. For instance, an occupational safety and health administration (OSHA) self-audit is an "assessment of workplace hazards, controls, programs, and documents performed by a business owner or employee"[68] in compliance with OSHA regulations. Furthermore, OSHA allows hiring a consultant within the company to perform self-audits when OSHA is not able to do an inspection immediately.[69]

2. External third-party audits:

External third-party audits could also be completed either through a governmental agency or a non-governmental certifying agency. Other legal scholars have proposed an "FDA for algorithms," in which the federal government would establish an agency to oversee different classes of algorithms.[70] What I propose is a certifying agency specific to automated hiring systems.

Some scholars have argued that key factors indicating a need for regulatory monitoring include: a public interest in preventing harm, information asymmetries, and a lack of faith in self-regulation.[71] With these three factors present in the context of automated hiring, I argue for either a government agency or a third-party non-governmental agency. The governmental agency could be housed under the auspices of the Equal Employment Opportunity Commission (the EEOC) with the agency certifying automated hiring platforms before they can lawfully be deployed. Given scarce governmental resources, it might also be a good alternative to consider a non-governmental

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Third-Party Harassers, Accommodation, and the Disaggregation of Discriminatory Intent, 109 COLUM. L. REV. 1357 (2009).

[64] Sarbanes–Oxley Act of 2002 (Pub.L. 107–204, 116 Stat. 745, enacted July 30, 2002),

[65] The Inst. of Internal Auditors, *Standards for the Professional Practice of Internal Auditing* 1, 23 (2016), https://na.theiia.org/standards-guidance/Public%20Documents/IPPF-Standards-2017.pdf.

[66] *See, e.g.*, The Inst. of Internal Auditors, *Standards for the Professional Practice of Internal Auditing* 1, 23 (2016), https://na.theiia.org/standards-guidance/Public%20Documents/IPPF-Standards-2017.pdf.

[67] *Id.*

[68] Samuel C. Yamin, David L. Parker, Min Xi & Rodney Stanley, *Self-Audit of Lockout/Tagout in Manufacturing Workplaces: A Pilot Study*, 60 AM. J. INDUS. MED. 504, 504 (2017).

[69] *See*, *Martin v. Bally's Park Place Hotel & Casino*, 983 F.2d 1252 (1993); Olivia K. LaBoda, *Dueling Approaches to Dual Purpose Documents: The Reaches of the Work Product Doctrine After Textron*, 44 SUFFOLK U. L. REV. 727, 737 (2011).

[70] Andrew Tutt, *An FDA for Algorithms*, 69 ADMIN. L. REV. 83 (2017).

[71] Rory Van Loo, *The Missing Regulatory State: Monitoring Business in an Age of Surveillance*, 72 VAND. L. REV. 1563 (2019).

entity, much like say the Leadership in Energy and Environmental Design (LEED) certification system.

The third-party certification entity would be composed of multi-disciplinary teams of auditors comprising both lawyers and software engineers or data scientists. Such a certification system could serve as a feedback mechanism to enable the better design of automated hiring systems. The certification would not be a one-time event but would involve periodic audits of the hiring algorithms to check for disparate impact. In return, the corporation or organization would earn the right to use a Fair Automated Hiring Mark (FAHM; see my illustration of a potential mark below) for its online presence, for communication materials, and to display on hiring advertisements as a signal to job-seekers.[72]

Figure 1: The Proposed Fair Automated Hiring Mark

C. Data-Retention and Record-Keeping Design Features for Automated Hiring Systems

Fairness by design for automated hiring systems dictates that record-keeping and data-retention mechanisms should be part of the standard design. As the data from automated hiring systems remain solely in the control of the employer, appropriate record-keeping and data-retention procedures are necessary to enable any disparate impact claims. At present, the data trail of job applicants who do not make it past the hiring algorithm is typically lost.[73] Thus, there is no sure way for plaintiffs to compare relative percentages of job applicants from protected categories who were hired against the number who applied as required by the EEOC rule.[74] This rule mandates that a selection rate for any race, sex, or ethnic group that is less than four-fifths (80%) of the rate for the group with the highest rate will generally be regarded by the federal enforcement agencies as evidence of adverse impact.[75]

Automated hiring systems which do not retain data when an applicant from a protected category is prevented from completing an application due to a design feature or which do not retain the data of completed but unsuccessful applications thwart the function of the EEOC rule. Data-retention mechanisms will ensure that data from failed job applicants are preserved to be later compared against the successful job applicants, with the aim of discovering whether the data evinces disparate impact. Consider also that responsible record-keeping and data-retention are necessary for conducting both internal and external audits.

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[72] I discuss my proposals for internal and external audits in greater detail in my paper in progress: Ifeoma Ajunwa, *Automated Employment Discrimination*, AVAILABLE AT: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3437631.

[73] *See* CATHY O'NEIL, WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY (2016).

[74] *See* 29 C.F.R § 1607(A) (2018).

[75] 29 C.F.R § 1607(A) (2018) (noting original language of the EEOC's "four-fifths rule").

PART III: WORKPLACE WELLNESS PROGRAMS, GENETIC DISCRIMINATION, AND WORKER SURVEILLANCE

A. Workplace Wellness Programs and Genetic Discrimination Concerns

In 2017, a bill was introduced in the House to expand the capabilities of workplace wellness programs to collect genetic data. The bill, H.R. 1313, titled, "Preserving Employee Wellness Programs Act" would exempt workplace wellness programs from prohibitions under the Americans with Disabilities Act (the ADA), which disallow medical examinations of employees and from prohibitions of the Genetic Information Non-Discrimination Act (GINA), which forbid the collection of genetic information from employees or family members of employees.[76] The term, "Wellness Program" describes "any program designed to promote health or prevent disease."[77] Early workplace wellness programs, known as Employee Assistance Programs, were promoted as benevolent programs for employees to receive assistance dealing with issues regarding mental health, substance abuse, and stress.[78] The Obama Administration supported workplace wellness under the aegis of the Patient Protection and Affordable Care Act (the ACA) and wellness programs have since evolved to offer health risk assessment, weight reduction and smoking cessation programs.[79]

When the Genetic Information Nondiscrimination Act (GINA) was passed in 2008,[80] Senator Edward Kennedy supported it as "the first major civil rights bill of the new century."[81] In addition to GINA and the ADA, Americans are also protected from unauthorized release and misuse of their health information by the Health Insurance Portability and Accountability Act (HIPAA), which was passed in 1996.[82] Despite these protections, employers have shown significant interest in offering genetic tests to employees, with the goal of improving health outcomes and reducing healthcare costs.[83] Today, some examples of companies that are publicly known to offer genetic testing as a workplace benefit include Visa, which offers genetic testing for breast and ovarian cancer risk, as well as Aetna, which tests at-risk employees for propensity for

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[76] *Preserving Employee Wellness Programs Act*, H.R.1313, 115TH CONGRESS (2017-2018), https://www.congress.gov/bill/115th-congress/house-bill/1313.
[77] Ann Hendrix & Josh Buck, *Employer-Sponsored Wellness Programs: Should Your Employer Be the Boss of More Than Your Work?*, 38 SW. L. REV. 465, 468-69 (2009).
[78] *Id.*
[79] L. F. Wiley, "Access to Health Care as an Incentive for Healthy Behavior? An Assessment of the Affordable Care Act's Personal Responsibility for Wellness Reforms," Indiana Health Law Review 11 (2014): 635-709, at 655.
[80] Pub. L. No. 110-233, 122 Stat. 881 (2008) (codified in sections of 26, 29, and 42 U.S.C.).
[81] David H. Kaye, *GINA's Genotypes*, 108 MICH. L. REV. FIRST IMPRES- SIONS 51, 51 (2010); *See also*, Kennedy in Support of Genetic Information Nondiscrimination Bill, April 24, 2008, available at: https://web.archive.org/web/20080529001720/http://kennedy.senate.gov/newsroom/press_release.cfm?id=4fcf8e86-4706-4e74-b451-36253c5a425d; *See also*, Jessica L. Roberts, *The Genetic Information Nondiscrimination Act as an Antidiscrimination Law*, 86 NOTRE DAME L. REV. 597 (2011).
[82] Health Insurance Portability & Accountability Act, DHSC, https://www.dhcs.ca.gov/formsandpubs/laws/hipaa/Pages/1.00WhatisHIPAA.aspx (last visited Jan. 29, 2020).
[83] Allison Higgins, *Genetic Testing as Part of Workplace Wellness Programs,* HR Daily Advisor, https://hrdailyadvisor.blr.com/2017/01/20/genetic-testing-part-workplace-wellness-programs/ (last visited Jan. 29, 2020).

heart disease, strokes, and diabetes.[84]

The introduction of genetic testing as part of workplace wellness programs contradicts both the letter and the spirit of the Genetic Information Non-Discrimination Act (GINA) and the Americans with Disabilities Act (the ADA). To allow genetic testing in the workplace is to ignore the history of genetic discrimination and eugenics thinking in the United States and the decades long battle to establish laws to protect workers. Remember that the case of *Buck v. Bell*[85] in 1927 heralded the rise of the eugenics movement in the United States, following which several states passed laws allowing for the involuntary sterilization of so-called "genetically undesirable individuals."[86] Such eugenics thinking then trickled into the workplace, resulting in genetic testing in the workplace deleterious to workers' privacy, autonomy, and dignity.[87]

In the 1998 case, *Norman-Bloodsaw v. Lawrence Berkeley Laboratory*, the court found that the plaintiffs had been subjected to medical exams, including the taking of blood and urine samples that were then tested for the sickle cell gene, syphilis and pregnancy.[88] Thus, the *Norman-Bloodsaw* case became a focal point of congressional hearings that resulted in the promulgation of GINA a decade later.[89] Similarly, in *EEOC v. Burlington Northern & Santa Fe Railway Co.*, the agency brought suit on behalf of employees who were subjected to involuntary medical tests for genetic markers of carpal tunnel syndrome.[90] The EEOC concluded "that the mere gathering of an employee's DNA may constitute a violation of the ADA."[91] Moreover, the accuracy of genetic data from wellness programs is in question.[92] For example, in one study, researchers found that nine genetic testing labs gave different answers for the same type of genetic testing at least 18 percent of the time.[93] This indicates that employers may even be relying on faulty information to make workplace decisions.

Even without the passage of the proposed H.R. 1313 bill, GINA remains relatively toothless and as such I continue to argue for the addition of a disparate impact cause of action for GINA

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84 Andie Burjek, *Genetic Testing Gets Toothy as Workplace Benefit*, Workforce.com, https://www.workforce.com/news/genetic-testing-gets-toothy-test-workplace-benefit (last visited Jan. 29, 2020). Other examples of companies that provide genetic testing are Andreessen Horowitz, SurveyMonkey, and Amway Corporation. *Id.*

85 *Buck v. Bell*, 274 U.S. 200 (1927).

86 *See* Peter Blanck & Aisling de Paor, *US Legislative and Policy Response: Some Historical Context to GINA, in* GENETIC DISCRIMINATION: TRANSATLANTIC PERSPECTIVES ON THE CASE FOR A EUROPEAN-LEVEL LEGAL RESPONSE 97 (2015) (surveying the historical background of genetic discrimination in the United States).

87 Paul Brandt-Rauf & Sherry Brandt-Rauf, *Genetic Testing in the Workplace: Ethical, Legal, and Social Implications*, 25 Annu. Rev. Pub. Health 139, 139 (2004).

88 *Norman-Bloodsaw v. Lawrence Berkely Lab.*, 135 F.3d 1260, 1265 (9th Cir. 1998).

89 H.R. Rep. No. 110-28, pt. 1, at 2 (2007).

90 Agreed Order Settling the Lawsuit, *EEOC v. Burlington Northern & Santa Fe Railway Co.,* No. 02-C-0456, 2002 WL 32155386 at *1 (E.D. Wis. May 8, 2002).

91 Press Release, *Equal Emp't Opportunity Comm'n, EEOC and BNSF Settle Genetic Testing Case Under Americans with Disabilities Act*, EQUAL EMP'T OPPORTUNITY COMM'N (May 8, 2002), https://www.eeoc.gov/eeoc/newsroom/release/5-8-02.cfm.

92 Kerry Abrams & Brandon L. Garrett, *DNA and Distrust*, 91 NOTRE DAME L. REV. 757, 767 (2015) (describing how genetic testing can identify a "person's *likely* health or medical predispositions"). Emphasis added.

93 See Robert Green, et al., *Exploring Concordance and Discordance for Return of Incidental Findings from Clinical Sequencing*, 14(4) Genet Med. 405, 406 (2012).

violations.[94] Unlike other U.S. antidiscrimination laws, GINA was passed without a provision for a disparate impact cause of action but with the requirement that Congress establish a commission within six years "to review the developing science of genetics and to make recommendations to Congress regarding whether to provide a disparate impact cause of action...."[95] As of this writing, no such commission has been established.

B. Worker Surveillance

The surveillance of workers is not a new phenomenon in the United States. In the 1800s, "the Pinkertons" working on behalf of employers, infiltrated and busted unions, enforcing company rules, and monitoring workers deemed to be a threat.[96] Such activities went largely unregulated until Congress passed the Anti-Pinkerton Act of 1893, which prohibited the federal government's from hiring the Pinkertons or similar organizations.[97] Yet, even after the demise of the Pinkertons, the advent of Taylorism in the early twentieth century inspired Henry Ford to surveil the factory floor with a stop watch and to institute the Sociological department, which was a team of detectives hired to monitor the private lives of his workers.[98] In recent years, technological innovations, both digital and otherwise, have become the primary tools of employee monitoring.[99] Beginning with punch-card systems, advancing to closed-circuit video cameras, GPS systems, the tracking of e-mail messages, keystroke logging, and most recently, microchips embedded under the skin, workplace surveillance has become a ubiquitous feature in the U.S.[100] Yet, there are no federal laws to protect workers from excessive surveillance.

In a 2015 California case, *Arias v. Intermex Wire Transfer, LLC*, a woman was fired from her job for deleting an employee tracking app from her phone as the app perpetually recorded her movements, even when she was off work and had turned it off.[101] The case was later settled out of court in the worker's favor because of California's worker protection laws. In another recent case, dubbed "the mystery of the devious defecator," a U.S. District Court Judge ordered an employer to pay two of its employees $2.2 million in damages for demanding that the employees, who were both African-American, provide DNA samples for genetic testing after feces were discovered in the workplace.[102] Employers have also expanded their focus from collecting personally-identifying

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[94] *See* Ifeoma Ajunwa, *Genetic Data and Civil Rights*, 51 Harv. C.R.-C.L. L. Rev. 75 (2016)
[95] 42 U.S.C. § 2000ff-7(b).
[96] FRANK MORN, THE EYE THAT NEVER SLEEPS: A HISTORY OF THE PINKERTON NATIONAL DETECTIVE AGENCY 18 (1982).
[97] See Pub. L. No. 89-554, 80 Stat. 416. (1966) (codified at 5 U.S.C. § 3108) ("An individual employed by the Pinkerton Detective Agency, or similar organization, may not be employed by the Government of the United States or the government of the District of Columbia.").
[98] Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735 (2017)
[99] Laurie Thomas Lee, *Watch Your Email! Employee E-Mail Monitoring and Privacy Law in the Age of the "Electronic Sweatshop,"* 28 J. MARSHALL L. REV. 139 (1994);
[100] Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735 (2017); In 2006, CityWatcher became the first employer to inject RFID tags under the skin of two of its employees. See Two U.S. Employees Injected with RFID Microchips at Company Request, SPYCHIPS.COM (Feb. 9, 2006), http://www.spychips.com/press-releases/us-employees-verichipped.html [https://perma.cc/X8LF- LB92].
[101] David Kravets, *Worker Fired for Disabling GPS App that Tracked Her 24 Hours a Day*, ARS TECHNICA (May 11, 2015, 9:41), http://arstechnica.com/tech-policy/2015/05/worker-firedfor-disabling-gps-app-that-tracked-her-24-hours-a-day [https://perma.cc/476P-L94B].
[102] Daniel Wiessner*, Georgia Workers Win $2.2 Million in 'Devious Defecator' Case*,

information, such as health records, to search queries, social media activity, and outputs of predictive "big data" analytics.[103]

PART IV: SOME PROPOSALS FOR PROTECTING WORKER DATA

A. The Employee Privacy Protection Act

A hypothetical "Employee Privacy Protection Act" (EPPA)[104] would ensure that employee monitoring is constrained to the workplace and job tasks. EPPA would limit surveillance outside the workplace and would prohibit the monitoring of employees when they are off-duty. Furthermore, EPPA's prohibitions would not be subject to notice and consent exceptions. Given the power imbalance in employer-employee relations, EPPA would serve as protective law for workers that could not be waived. Critics could argue that EPPA goes against "freedom to contract" principles, but there can be no true meeting of the minds when one party, the employee has no true choice. This new law would preserve data autonomy for the worker and would ensure that it could no longer be traded away as part of the employment bargain.

B. The Employee Health Information Privacy Act (EHIPA): Worker Health Data Protection:

The hypothetical Employee Health Information Privacy Act (EHIPA)[105] would clarify that health information generated from workplace wellness programs, or device connected to one's employment is protected information under existing health privacy laws. The EHIPA would restrict both employer and vendor access to such employee health data and would ensure that such data could not be sold without the employee's consent.[106] Under the EHIPA, the employee would have the right to request the destruction of the data record at the end of her employment. This law would also be applicable to fitness trackers used in the workplace such as the Apple Watch, Microsoft Band, or Fitbit, etc.

Conclusion

In the immediate future of work, the primary concern is whether workers can enjoy equal opportunity for employment and thrive in workplaces that respect human autonomy and privacy. Governmental action is needed not only to secure the bedrock legal principle of equal opportunity

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REUTERS (June 23, 2015, 11:41 AM), http://www.reuters.com/article/2015/06/23/us-verdict-dnadefecator-idUSKBN0P31TP20150623 [https://perma.cc/G356-WR3M].

[103] Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 95 (2014) (noting "predictive privacy harms"); *See also*, SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM; THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER, (2019)

[104] My co-authors and I have proposed this in a law review article. *See*, Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735 (2017).

[105] This proposed law is discussed in detail in a law review article. *See*, Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735 (2017).

[106] Ifeoma Ajunwa, *Workplace Wellness Programs Could be Putting Your Health Data at Risk,* HARVARD BUSINESS REVIEW, January 19, 2017, available at: https://hbr.org/2017/01/workplace-wellness-programs-could-be-putting-your-health-data-at-risk

in employment but also to ensure that workers are not called upon to trade their dignity in the employment bargain. While automated hiring might represent convenience to the employer, for vulnerable populations it can be a sieve used to cull them from the workplace. Allowing for a third cause of action under Title VII, mandating audits, and instituting data-retention and record-keeping designs for automated hiring systems are essential steps for maintaining fairness in hiring. Also, technological advancements now allow for more minute surveillance of workers resulting in the sweeping collection of personal and sensitive data. The federal government should stand firm in the commitment it took when it passed the Americans with Disabilities Act (the ADA) and the Genetic Information Non-Discrimination Act (GINA) and refuse to allow genetic testing as part of workplace wellness programs. The new laws I have proposed here: a hypothetical Employee Privacy Protection Act (EPPA) and a hypothetical Employee Health Information Act (EHIPA), will protect workers from the misuse or unauthorized sale of their personal and sensitive data.

I thank the committee for the opportunity to testify on these important workplace issues.