UCLA

Disability Law Journal

Title

Screened Out Onscreen: Disability Discrimination, Hiring Bias, and Artificial Intelligence

Permalink

https://escholarship.org/uc/item/0wv567bf

Journal

Disability Law Journal, 4(1)

ISSN

2831-9222

Author

Moss, Haley

Publication Date

2023

Copyright Information

Copyright 2023 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at https://escholarship.org/terms

Peer reviewed

eScholarship.org Powered by the California Digital Library
University of California

Screened Out Onscreen:

Disability Discrimination, Hiring Bias, and Artificial Intelligence

Haley Moss*

This Article originally appeared in the Denver Law Review, Volume 98, Issue 4.

Abstract

This Article explores how Title I of the Americans with Disabilities Act of 1990 (ADA) and Section 503 of the Rehabilitation Act of 1973 interact with artificial intelligence (AI) and employment bias and discrimination against and for people with disabilities. Under these sections, employers are prohibited from discrimination on the basis of disability in the hiring and employment process, yet technology that screens video interviews, applications, and other employee and prospective employee materials demonstrates bias and does not select disabled job candidates. These biases can run afoul of the ADA and raise ethical concerns. People with disabilities face disproportionately high unemployment rates compared to the general population. Technology often improves lives and access to

---

* J.D. University of Miami School of Law 2018, B.S., University of Florida, 2015, B.A., University of Florida, 2015. Author, Great Minds Think Differently: Neurodiversity for Lawyers and Other Professionals (2021). Thank you to the wonderful disabled activists and advocates working at the intersection of technology and disability, the diligent law students who edited and assisted with this Article, and of course, my family for their endless love and support.

opportunity, but AI has the potential to disrupt gains and progress made to improve the lives of disabled individuals.

Part I of this Article analyzes AI and its relation to the disability rights and disability justice movements. Part II explains hiring biases and technology's relationship with disability. Part III is a thorough analysis of AI and disability bias in employment under Section 503 of the Rehabilitation Act and Title I of the ADA. The concluding section of this Article offers some reflections on accessibility and equity within the workplace as it concerns people with disabilities and how AI can help, rather than hinder, disability hiring and eliminate bias, rather than continue to perpetuate it.

Table of Contents

Introduction

Imagine consistently working in jobs beneath your level of experience and education, bouncing from job to job in search of a career after being treated negatively. Or being told you are not a culture fit. Or growing tired of being habitually unemployed. And then your dream job shows up in an online search. You enthusiastically upload your cover letter, resume, application information, and voluntarily disclose your demographic information. You are invited to a oneway virtual-video interview, where your answers and application materials are later scored based on key attributes for the role, such as collaborative teamwork skills, patience in customer service, and past managerial experience. Neither the human resources department nor your future supervisor score your application, but an artificially intelligent algorithm attempts to objectively analyze data from every aspect of your application, including the language and keywords used within your resume and video interview. The algorithm also scores one aspect of job interviews that is perhaps best determined and ranked by a human: personal elements like a candidate's body language and facial expressions, speaking speed, word choice, and eye contact. Instead of relying on intuition or human connection, the algorithm measures "microexpressions"—very brief, subtle, and often involuntary facial expressions.[1] Such microexpressions can last between one twenty-fifth and one-fifth of a second.[2] While

---

1. Paul Ekman & Wallace V. Friesen, Nonverbal Leakage and Clues to Deception, 32 PSYCHIATRY 88, 93 (1969).

2. Yee-Hui Oh, John See, Anh Cat Le Ngo, Raphael C.W. Phan, &

you felt the interview questions were fair and you were qualified, you struggled with the interview because making eye contact is unnatural for you. Moreover, a glitch in the technology did not give you the extra ten seconds to respond that you were supposed to receive as an accommodation for your attention deficit hyperactivity disorder. While you were excited for the interview, you were anxious, and the artificial intelligence (AI) picked up on ways your microexpressions may have displayed fear. To you, the interview went well: you were prepared, answered the questions as best you could, and felt passionate about the job. Unfortunately, you are not invited for an in person interview with the team because the algorithm gave you a low score based on your lack of eye contact, nervousness, and failure to mention a few key words—key words that supposedly demonstrate a match in qualifications.[3]

Situations like this interview, including mishaps involving failed accommodations, misinterpretation of body language and facial expressions, and a hunt for key words, are part of the expanding frontier

---

Vishnu M. Baskaran, A Survey of Automatic Facial Micro-Expression Analysis: Databases, Methods, and Challenges, 9 FRONTIERS IN PSYCH. (2018) (citing PAUL EKMAN, TELLING LIES: CLUES TO DECEIT IN THE MARKETPLACE, POLITICS, AND MARRIAGE (rev. ed. 2009)).

3. See Alex Lee, An AI to Stop Hiring Bias Could Be Bad News for Disabled People, WIRED (Nov. 26, 2019), https://www.wired.co.uk/article/ai-hiring-bias-disabled-people.

of AI usage within the hiring process.[4] The use of AI disproportionately impacts job seekers with disabilities, like the person described above.[5] While AI is designed in consultation with psychologists to control for implicit bias, it can still fall short and discriminate against disabled job seekers.[6]

The widespread use of algorithms and AI, as well as the prevalence of disability, are underestimated in society. While most associate AI with selfdriving cars and futuristic technology, AI permeates our everyday lives through calculating commute times, ridesharing, spam filtering, and plagiarism checking.[7] People with disabilities[8] comprise the largest

---

4. Id.; Alex Engler, For Some Employment Algorithms, Disability Discrimination by Default, BROOKINGS (Oct. 31, 2019), https://www.brookings.edu/blog/techtank/2019/10/31/for-some-employment-algorithms-disability-discrimination-by-default.

5. Lee, supra note 3 (describing scenarios where disabled job seekers struggle with one-way video-interviewing technology).

6. Id.

7. See Daniel Faggella, Everyday Examples of Artificial Intelligence and Machine Learning, EMERJ (Apr. 11, 2020), https://emerj.com/ai-sector-overviews/everyday-examples-of-ai.

8. The terms “disabled people” and “people with disabilities” are used interchangeably throughout this Article, as both person-first language and identity-first language are used in Disability communities. See, e.g., Cara Liebowitz, I am Disabled: On Identity-First Versus People-First Language, The Body is Not

minority group in the United States today, accounting for sixty-one million (about one in four) American adults across people of all races, nationalities, genders, sexual orientations, and socioeconomic statuses.[9] While disability can intersect with other forms of marginalization, disability is the only minority group that anyone can join through a change in circumstances; disability ultimately catches up to everyone who lives long enough.[10]

Though disability covers a large swath of the population, people with disabilities are not a monolith. The diversity of disabilities means that the group is made up of many different subsets of people.[11] Even with a big disabled population, Alexandra Reeve Givens, the current Chief Executive Officer at the Center for Democracy & Technology, explains,

---

an Apology (Mar. 20, 2015), https://thebodyisnotanapology.com/magazine/i-am-disabled-on-identity-first-versus-people-first-language.

9. CDC: 1 in 4 US Adults Live with a Disability, CTRS. FOR DISEASE CONTROL & PREVENTION (Aug. 16, 2018, 1:00 PM), https://www.cdc.gov/media/releases/2018/p0816-disability.html; see also Ashley Welch, 1 in 4 U.S. Adults has a Disability, CDC Says, CBS NEWS (Aug. 16, 2018, 1:31 PM), https://www.cbsnews.com/news/1-in-4-u-s-adults-has-a-disability-cdc-says.

10. Joseph Coates, Facing Facts: the Minority Group Everyone Can Join, BALT. SUN (Aug. 1, 1993), https://www.baltimoresun.com/news/bs-xpm-1993–08–01–1993213105-story.html.

11. Welch, supra note 9.

"[I]t's really a lot of smaller underrepresented populations that each face barriers in their own ways."[12]

This vastness wreaks havoc on the technologies we create to eliminate implicit bias, including AI and machine learning—the subset of AI that uses computer algorithms to allow computers and machines to automatically improve at performing tasks through experience.[13]

The Americans with Disabilities Act of 1990 (ADA) defines a disability as "a physical or mental impairment that substantially limits one or more major life activit[y]."[14] Disabilities can be visible or invisible, chronic or short term, mental or physical, mild or severe.[15] In essence, while many emerging technologies and forms of automation offer promise to make life easier and to exhibit a lack of preference for specific groups of people, engineers and developers alike have failed to control for the vastness of the disabled experience and presentation of disability,

---

12. Future of Work Podcast, Protecting People with Disabilities Against Discrimination with AI in Employment, P'SHIP ON EMP. & ACCESSIBLE TECH. (Apr. 21, 2020), https://peatworks.org/podcast-protecting-people-with-disabilities-against-discrimination-with-ai-in-employment.

13. TOM M. MITCHELL, MACHINE LEARNING 2 (1997); Matt Vella, How A.I. Is Transforming Our World, in TIME ARTIFICIAL INTELLIGENCE: THE FUTURE OF HUMANKIND (2017).

14. 42 U.S.C. § 12102(1)(A) (2017).

15. Id.

especially within AI; rather, AI continues to infallibly mimic human biases and misunderstanding of the concept of disability.[16]

This AI and machine learning partiality is amplified in one of the largest barriers that adults with disabilities face: employment. Despite incentives through public policy and a compelling moral case in both the private and public sectors to hire more people with disabilities—including targeted hiring programs to recruit disabled talent[17] and monumental antidiscrimination laws like the ADA—disabled individuals experience disproportionately high rates of underemployment and unemployment.[18]

---

16. Anhong Guo, Ece Kamar, Jennifer Wortman Vaughan, Hanna Wallach, & Meredith Ringel Morris, Towards Fairness in AI for People with Disabilities: A Research Roadmap, in ACM ASSETS 2019 WORKSHOP ON AI FAIRNESS FOR PEOPLE WITH DISABILITIES 1 (2019).

17. See, e.g., Workforce Recruitment Program, https://www.wrp.gov/wrp (last visited Apr. 13, 2021) ("The Workforce Recruitment Program (WRP) is a recruitment and referral program that connects federal and private-sector employers nationwide with highly motivated college students and recent graduates with disabilities who are eager to demonstrate their abilities in the workplace through summer or permanent jobs."); Autism @ Work Employer Roundtable, DISABILITY:IN, https://disabilityin.org/what-we-do/committees/autism-at-work-roundtable (last visited Apr. 13, 2021).

18. Engler, supra note 4 ("[The disability] unemployment rate stands at 6.1%, twice that of people without disabilities."); Disability Employment Statistics, U.S. DEP'T OF LAB., OFF. OF DISABILITY EMP. POL'Y, https://www.dol.gov/agencies/odep/research/statistics (last visited Apr. 13,

According to data from the U.S. Department of Labor's Office of Disability Employment Policy, the unemployment rate for the working age population between ages sixteen and sixty-four is about 11.2 percent for adults with disabilities; for nondisabled adults, the unemployment rate is 6.1 percent.[19] The unemployment rates are even higher for people with developmental disabilities like autism spectrum disorder,[20] which is marked by differences in nonverbal communication and selfexpression,[21] and these individuals face further discrimination with the implementation

---

2021).

19. Disability Employment Statistics, supra note 18.

20. The Importance of Work for Individuals with Intellectual/Developmental Disabilities, NAT'L ASS'N OF CNTY. BEHAV. HEALTH & DEV. DISABILITY DIRS. (2018), https://www.autism-society.org/wp-content/uploads/2018/04/IDD-BRIEFING-Employment-importance-Final-2.22.18.pdf.

21. American Psychiatric Association, Autism Spectrum Disorder, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (2013); About Autism, AUTISTIC SELF ADVOC. NETWORK, (2021) https://autisticadvocacy.org/about-asan/about-autism. Autism spectrum disorder is a complex neurological condition and developmental disability characterized by a spectrum of differences in social communication and interaction, heightened sensory processing and experiences, intense passions or interests, and repetitive behaviors. About Autism, supra.

of AI systems that automatically gauge such criteria in numerous companies' hiring and interviewing processes.[22]

Part I of this Article analyzes AI and its relation to the disability rights and disability justice movements. Part II explains hiring biases and AI's relation to disability. Part III delves into a thorough analysis of AI, disability bias, and disparate impact and treatment in employment contexts under Title I of the ADA. This Part also explores the concerns and unique challenges that federal agencies and subcontractors face under Section 503 of the Rehabilitation Act of 1973 in addition to ADA compliance. Part IV offers some reflections on workplace equity as it concerns people with disabilities and how to address issues set forth by AI. This Part suggests that increased diversity of developers and engineers, returning to our roots without automation, and bias mitigation strategies ultimately will help, rather than hinder, disability inclusion and eliminate workplace bias against disabled workers, rather than continue to perpetuate prejudices and discriminatory practices. Finally, Part V concludes by bringing together these varying threads of disability policy, employment law, and developments in AI.

---

22. See Patricia Barnes, Artificial Intelligence Poses New Threat to Equal Employment Opportunity, FORBES (Nov. 10, 2019, 1:57 PM), https://www.forbes.com/sites/patriciagbarnes-/2019/11/10/artificial-intelligence-poses-new-threat-to-equal-employment-opportunity/?sh=708a09556488.

I. Movement Work and Moving Parts: Disability Rights and Modeling Human Interaction Through AI

For the millions of Americans with disabilities, workplace inclusion has been an ongoing challenge.[23] Disabled people and their allies have been fighting for equity in several areas, including employment, community integration and independent living, housing, reproductive rights, criminal justice, and environmental justice.[24] People with disabilities have spent decades fighting for the right to be present and participate in all aspects of society.[25] This aligns with the social model of disability, where individuals with disabilities report being further impaired by societal attitudes and discrimination than any medical or psychological condition itself—it is society that needs a cure, not disabled people.[26]

---

23. Engler, supra note 4.

24. See Catherine Jampel, Intersections of Disability Justice, Racial Justice, and Environmental Justice, 4 ENV'T SOCIO. 122, 122 (2018).

25. Laura Rothstein, Forty Years of Disability Policy in Legal Education and the Legal Profession: What Has Changed and What are the New Issues?, 22 AM. U. J. GENDER SOC. POL'Y & L. 519, 526–27 (2014); Perri Meldon, Disability History: The Disability Rights Movement, NAT'L PARK SERV., https://www.nps.gov/articles/disabilityhistoryrightsmovement.htm (last visited Apr. 13, 2021).

26. Arlene S. Kanter, The Law: What's Disability Studies Got to Do With it or an Introduction to Disability Legal Studies, 42 COLUM. HUM. RTS. L. REV. 403, 427 (2011).

Accompanying the push to include people with disabilities is emerging AI technology like computer algorithms and automation. While advances in technology may appear overwhelmingly beneficial to a large group of people historically denied civil rights protections, technology such as AI is a double-edged sword for people with disabilities—it has the potential to greatly improve accessibility and quality of life, but it also has the potential to normalize further discrimination without the shock value of overt human biases.[27]

A. Inventing Access, Equity, and Inclusion: The Disability Rights and Disability Justice Movements

Much like the civil rights movement of the 1960s, the disability rights movement sought to upend the existing social order, bringing a previously excluded group into the fold.[28] Throughout history, disabled advocates sought equality for people with disabilities, with the modern disability rights movement blossoming after the civil rights movement of the 1960s and the omission of disability protections in the Civil Rights Act of 1964.[29] Disabled activists sought the right to make their own decisions

---

27. Engler, supra note 4.

28. Michael E. Waterstone, Backlash, Courts, and Disability Rights, 95 B.U. L. REV. 833, 833 (2015).

29. See FRED PELKA, WHAT WE HAVE DONE: AN ORAL HISTORY OF THE DISABILITY RIGHTS MOVEMENT 27 (2012); Robert D. Dinerstein, The Americans with Disabilities Act of 1990: Progeny of the Civil Rights Act of 1964, A.B.A. HUM. RTS. MAG. (July 1, 2004), https://www.americanbar.org/groups/crsj/publications/

and fully participate within their communities.[30] If there is "one defining principle of the disability rights movement, it is that each individual is different and unique and that individuals with disabilities are in the best position to decide what services they need."[31] Early disability rights victories focused primarily on people with physical disabilities; however, crucial sub movements within disability rights, including the self-advocacy movement[32] and independent-living movement,[33] were often spearheaded by people with intellectual and developmental disabilities who experience

---

human_rights_magazine_home/human_rights_vol31_2004/summer2004/irr_hr_summer04_disable.

30. CRIP CAMP: A DISABILITY REVOLUTION (Netflix 2020).

31. Nicole Buoncore Porter, Relieving (Most of) The Tension: A Review Essay of Samuel R. Bagenstos, Law and the Contradictions of the Disability Rights Movement, 20 CORNELL J.L. & PUB. POL'Y 761, 767 (2011).

32. The Self-Advocacy Movement 1980, PARALLELS IN TIME A HISTORY OF DEVELOPMENTAL DISABILITIES, https://mn.gov/mnddc/parallels/seven/7a/1.html (last visited Apr. 15, 2021) ("Self-advocacy – as a personal and political philosophy – is a movement primarily of and by persons with [intellectual disabilities] who are making their own decisions, speaking for themselves and for others with disabilities, and taking control over their lives.").

33. Patricia E. Deegan, The Independent Living Movement and People with Psychiatric Disabilities: Taking Back Control Over Our Own Lives, 15 PSYCH. REHAB. J. 3, 4 (1992).

greater stigmatization and discrimination than people with physical disabilities.[34]

The disability rights movement has had far more success at the legislative level than within the courts.[35] The U.S. Supreme Court largely interpreted the meaning of disability under the ADA in a restrictive manner, effectively excluding people until advocates turned back towards the legislative arena with the passage of the Americans with Disabilities Amendments Act (ADAA) in 2008—effectively overturning past Court precedent and creating a broad interpretation of disability.[36] To contrast, the civil rights movement tells a cautionary tale of what happens with too much court involvement in interpreting a marginalized group's civil rights.[37]

---

34. See, e.g., Patrick W. Corrigan & Amy C. Watson, Understanding the Impact of Stigma on People with Mental Illness, 1 WORLD PSYCHIATRY 16, 17 (2002) ("[T]he public seems to disapprove persons with psychiatric disabilities significantly more than persons with related conditions such as physical illness.").

35. See Waterstone, supra note 28, at 835–36.

36. Id. at 842.

37. Id. at 838–41 (explaining how the politicization of the civil rights movement by the Supreme Court led to passionate opposition and backlash from Court decisions, which disability rights advocates did not encounter due to their primarily legislative agenda).

But a singular rights-based approach often leaves people with disabilities behind.[38] The disability justice movement, often referred to as the "second wave" of disability rights, took the principles of disability rights further.[39] Originated by disabled queer people and disabled people of color, disability justice seeks to address where the disability rights movement falls short; the original disability rights framework centers around people who can achieve status, power, and access through a legal or rights-based framework, which is not possible for many disabled people or appropriate for all situations.[40] Disability justice takes into account that a singular disabled identity does not explain the complex systems upholding the full extent of ableism within society, including capitalism, white supremacy, heteropatriarchy, and colonialism.[41] In essence, disability rights is not a singleissue identity; rather, that disability intersects with race, gender, sexuality, age, and immigration status and therefore, must be viewed through a cross section of each

---

38. SINS INVALID, SKIN, TOOTH, AND BONE: THE BASIS OF MOVEMENT IS OUR PEOPLE 12 (2d ed. 2016).

39. See id. at 12; see also Luticha Andre Doucette, Rights and Justice: Disability Advocates Blazing Trails, YES MAG. (Nov. 3, 2020), https://www.yesmagazine.org/issue/what-the-rest-of-the-world-knows/2020/11/03/disability-justice-advocates-blazing-trails.

40. SINS INVALID, supra note 38, at 12–13.

41. Id. at 13–14.

of these groups that also experience disability.[42] A disability justice framework seeks to achieve greater progress and collective liberation by uplifting disabled people at the margins, essentially grounding itself in the following tenets: (1) everyone is unique and essential; (2) everyone has strengths and needs that must be met; (3) everyone is powerful, not despite the complexities of our bodies, but because of them; and (4) everyone is confined by ability, race, gender, sexuality, class, nation state, religion, and more, and we cannot separate them.[43]

B. Data Rules Everything Around Me: How AI and Algorithms Function

In the broadest sense, AI encompasses "any technique that enables computers to mimic human intelligence."[44] AI covers a wide range of technologies that allow computers, robots, and other machines to solve problems.[45] Computers use different problem-solving techniques such as "logic, ifthen rules, decision trees and machine learning."[46] Primarily, a lot of automated systems use machine learning.[47] "An algorithm is a process or series of steps designed to answer a question, make a decision, or carry out a task, often in domains that traditionally have been

---

42. Id. at 15.

43. Id. at 14.

44. Vella, supra note 13.

45. Roger Parloff, The Deep-Learning Revolution, in TIME ARTIFICIAL INTELLIGENCE: THE FUTURE OF HUMANKIND (2017).

46. Vella, supra note 13.

47. Mitchell, supra note 13; see also Vella, supra note 13.

handled by humans."[48] Algorithms collect and analyze large sets of data to find patterns and trends to learn and solve problems.[49]

AI and algorithms are not perfect—like most machines, they reflect their creators.[50] This includes bias.[51] "[H]umans decide how algorithms are designed . . . meaning they [also] reflect the real world's existing biases."[52] One of the most amplified biases is ableism and disability bias.[53] Jutta Treviranus, the Director of the Inclusive Design Research Centre said: "Disability is a perfect challenge to [AI] because, if you're living with a disability, your entire life is much more complex, much more entangled and your experiences are always diverse."[54]

---

48. LYDIA X. Z. BROWN, RIDHI SHETTY, & MICHELLE RICHARDSON, ALGORITHM-DRIVEN HIRING TOOLS: INNOVATIVE RECRUITMENT OR EXPEDITED DISABILITY DISCRIMINATION? 5 (2020).

49. Vella, supra note 13.

50. Kriti Sharma, Can We Keep Our Biases from Creeping Into AI?, HARV. BUS. REV. (Feb. 9, 2018), https://hbr.org/2018/02/can-we-keep-our-biases-from-creeping-into-ai; Gideon Mann & Cathy O'Neil, Hiring Algorithms are Not Neutral, HARV. BUS. REV. (Dec. 9, 2016), https://hbr.org/2016/12/hiring-algorithms-are-not-neutral.

51. Will Byrne, Now is the Time to End Bias in AI, FAST CO. (Feb. 28, 2018), https://www.fastcompany.com/40536485/now-is-the-time-to-act-to-stop-bias-in-ai.

52. BROWN ET AL., supra note 48, at 5.

53. Id. at 7.

54. Gus Alexiou, Algorithmic and AI Assessment Tools – A New Frontier

C. Crip Technoscience and Tech's Role in Disability Rights and Disability Justice Movements

The complexity of the disabled experience is directly challenged by disabled activists, scholars, and individuals themselves.[55] Disabled people have always been innovators who repurpose objects and concepts to adapt to an inaccessible world, or who create new technology to eliminate barriers to access.[56] This is where the concept of "crip technoscience" comes into play—"acts of designing, hacking and tinkering as forms of disability politics against norms and social structures."[57] In a world that values able-bodied experiences, the disabled existence is resistance.

---

in Disability Discrimination, FORBES (Dec. 13, 2020), https://www.forbes.com/sites/gusalexiou/2020/12/13/algorithmic-and-ai-assessment-tools—-a-new-frontier-in-disability-discrimination/?sh=51feebb9544f. These remarks were made at a panel at Sight Tech Global entitled "AI, Fairness and Bias: What Technologists and Advocates Need to Do to Ensure that AI Helps Instead of Harms People with Disabilities." Id.

55. See Aimi Hamraie & Kelly Fritsch, Crip Technoscience Manifesto, 5 CATALYST: FEMINISM, THEORY, TECHNOSCIENCE 1, 2 (Apr. 1, 2019).

56. Id. at 5–7; see also David M. Perry, Disabled Do-It-Yourselfers Lead Way to Technology Gains, N.Y. TIMES (July 20, 2020), https://www.nytimes.com/2020/07/14/style/assistive-technology.html.

57. Sara Hendren, Crip Technoscience for Beginners, SARA HENDREN (June 5, 2019), https://sarahendren.com/2019/06/05/crip-technoscience-for-beginners.

Disabled people's innovations go even further. One example is inclusive design, which focuses on creating "new products with different levels of abilities in mind."[58] Accessible design for everyone is illustrated by the curb-cut effect: when other groups benefit from improvements intended for a specific group.[59] Curb cuts in sidewalks are meant to benefit wheelchair users, but "[p]arents pushing strollers" and people transporting heavy items have ultimately benefitted from an accessibility feature designed to help people with physical disabilities.[60] Accessibility and inclusion often benefit more than one group, not just the marginalized group being uplifted.[61] That is amplified further with technology.[62]

AI, while embedded in mundane tasks for many, has the potential of vastly improving the lives of people with disabilities. Deaf and hard

---

58. Jackie Snow, How People with Disabilities Are Using AI to Improve Their Lives, PBS (Jan. 30, 2019), https://www.pbs.org/wgbh/nova/article/people-with-disabilities-use-ai-to-improve-their-lives.

59. Angela Glover Blackwell, The Curb-Cut Effect, STAN. SOC. INNOVATION REV. 28, 30 (2017).

60. Id. at 28.

61. Id. at 30.

62. Perry, supra note 56; Morton Ann Gernsbacher, Video Captions Benefit Everyone, 2 POL'Y INSIGHTS BEHAV. BRAIN SCI. 195, 195 (2015) (describing the benefits of captioning, which was initially intended for Deaf or hard of hearing individuals, for people learning to read or learning a second language as well as on memory and cognition for all populations).

of hearing individuals can use AI through apps like Ava, which allows them to best participate in group conversations by listening, generating captions for its users, and identifying different speakers during an in-person or videoconference group conversations.[63] Other apps use machine learning to help individuals with speech impediments more accurately generate captions or audio.[64] These forms of AI allow disabled users to better communicate and have increased access to the world around them.

Despite the potential for innovation, disability rights risk erosion as they are entangled within "society's drive to achieve greater efficiency through the automation of processes that once required careful human deliberation."[65]

II. Disability Employment and Emerging Technologies

Against the backdrop of the disability rights and justice movements and disabled innovation, policy for workplace inclusion and integration of people with disabilities began before the formal disability rights and disability justice movements started.[66] The policies began with the

---

63. Snow, supra note 58; see also AVA, https://www.ava.me (last visited Apr. 14, 2021).

64. Snow, supra note 58.

65. Alexiou, supra note 54.

66. See Patricia P. Martin & David A. Weaver, Social Security: A Program and Policy History, 66 SOC. SEC. BULL., 2005, at 1, 1–2, 7; see also Perri Meldon, Disability History: The Disability Rights Movement, NAT'L PARK SERV. (Dec. 13, 2019), https://www.nps.gov/articles/

return of soldiers from World War I and the need to further jump-start the American economy during the Great Depression.[67] Historically, disability rights have had greater success through public policy and legislative achievements compared to court precedents;[68] the same rings true for disability employment issues and technology-related issues, where courts struggle to interpret innovation that legislation fails to capture at a particular moment in time; in a sense, adapting to new technological advances in the confines of legislation requires judicial activism.[69] Yet the emergence of video interviewing and AI in the employment context eliminates progress in technology and in the further inclusion of workers with disabilities[70] who are already marginalized in their demands for competitive, integrated employment and equal opportunity.[71]

---

disabilityhistoryrightsmovement.htm ("The League of the Physically Handicapped organized in the 1930s, fighting for employment during the Great Depression.").

67. Id. at 1–2.

68. Waterstone, supra note 28, at 835–37.

69. See id. at 833–34, 836, 841–43; see also Doron Dorfman & Thomas F. Burke, Thirty Years Later, Still Fighting Over the ADA, REGUL. REV. (Dec. 7, 2020), https://www.theregreview.org/2020/12/07/dorfman-burke-thirty-years-fighting-over-ada.

70. See generally Lee, supra note 3 (describing how video interviewing works and how it can disadvantage disabled applicants).

71. Jean-François Ravaud, Béatrice Madiot, & Isabelle Ville, Discrimination Towards Disabled People Seeking Employment, 35 SOC.

A. The Ongoing Challenge of Disability Inclusion in the Workplace

Disability inclusion in the workplace has a deeper history than the modern disability rights movement or the emergence of AI technology. Legislation protecting disabled workers tells a story beginning with the reintegration of newly disabled veterans returning home from World War I, with the passage of the Smith-Sears Veterans Rehabilitation Act of 1918 and the Smith-Fess Act (also known as the Civilian Rehabilitation Act) in 1920.[72] Both intended to help physically disabled persons discharged from the military return to civil employment and to establish vocational rehabilitation programs and employment assistance.[73] Riding on the desire to empower and include people with disabilities within the American workforce, the Randolph-Sheppard Act of 1936 provided blind

---

SCI. MED. 951, 956–57 (1992).

72. See A Brief History of Legislation, COLO. STATE UNIV. STUDENT DISABILITY CTR., https://disabilitycenter.colostate.edu/disability-awareness/disability-history (last visited Apr. 14, 2021) (integrating the Smith-Sears Veterans Rehabilitation Act of 1918 and the Smith-Fess Act into a timeline history of disability rights legislation).

73. Smith-Sears Act (Vocational Rehabilitation Acts), ch. 107, 40 Stat. 617, 617 (1918) (amended 1919); Smith-Fess Act of 1920 (Vocational Rehabilitation Act), ch. 219, 41 Stat. 735, 735 (1920) repealed and replaced by Rehabilitation Act of 1973, Pub. L. No. 93–112, 87 Stat. 355 (1973).

individuals with employment opportunities in operating vending stands on federal properties.[74]

However, whatever progress came from the Randolph-Sheppard Act in terms of job creation took a downward turn with two subsequent pieces of legislation in 1938: the Wagner-O'Day Act and the Fair Labor Standards Act (FLSA).[75] While the Randolph-Sheppard Act is criticized for its failure to accommodate blind workers in mainstream employment settings and instead encourages them to take special employment,[76] these continued policies worsened the case for accommodations from existing businesses.[77] The Wagner-O'Day Act required federal agencies to purchase certain products manufactured by people who are blind.[78]

---

74. Randolph-Sheppard Act, ch. 638, 49 Stat. 1559, 1559 (1936) (codified as amended at 20 U.S.C. § 107).

75. Wagner-O'Day Act, ch. 697, 52 Stat. 1196 (1938) (codified as amended at 41 U.S.C. §§ 8501–8506); Fair Labor Standards Act of 1938, ch. 676, 52 Stat. 1060 (1938) (codified as amended at 29 U.S.C. §§ 201–219).

76. Jonathan C. Drimmer, Cripples, Overcomers, and Civil Rights: Tracing the Evolution of Federal Legislation and Social Policy for People with Disabilities, 40 UCLA L. REV. 1341, 1366–67 (1993).

77. See, e.g., President's Comm. on Emp. of the Handicapped, Selected State and Federal Laws Affecting Employment and Certain Rights of People with Disabilities 57–58 (1980).

78. Ch. 697, 52 Stat. at 1196 (codified as amended at 41 U.S.C. §§ 8501–8506).

In contrast, the FLSA was far more expansive; it established regulations for minimum wage, overtime pay, record-keeping, and child labor in the private sector was well as within federal, state, and local governments.[79] However, the FLSA enacted a provision allowing for disabled workers and others seen as "undesirable" to be paid below the federal minimum wage.[80]

Both the Wagner-O'Day Act and the FLSA solidified the existence of "sheltered workshops," defined broadly as "facility-based day programs attended by adults with disabilities as an alternative to working in the open labor market."[81] Sheltered workshops silo workers with disabilities into employment settings exclusively comprised of disabled people, signaling that disabled workers cannot function with "normal," able-bodied people and must remain separate and only with other people

---

79. Ch. 676, 52 Stat. at 1062–63, 1066–67 (codified as amended at 29 U.S.C. §§ 201–219). See Wages and the Fair Labor Standards Act, U.S. DEP'T. OF LAB., https://www.dol.gov/agencies/whd/flsa, for a discussion of the current version of the statute and how it functions today.

80. Sara Luterman, Why Businesses Can Still Get Away with Paying Pennies to Employees with Disabilities, VOX (Mar. 16, 2020, 8:30 AM), https://www.vox.com/identities/2020/3/16/21178197/people-with-disabilities-minimum-wage.

81. Alberto Migliore, Sheltered Workshops, in INT'L ENCYCLOPEDIA OF REHAB. 1, 1 (Ctr. Int'l Rehab. Rsch. Info. & Exch. ed. 2010), http://wintac-s3.s3-us-west-2.amazonaws.com/topic-areas/ta_511/Migliore-2010-sheltered_workshops_0.pdf.

with disabilities.[82] Today, Section 14(c) of the FLSA allows authorized employers with certificates from the federal government to pay workers with disabilities less than the federal minimum wage of $7.25/hour.[83]

In 1945, the U.S. government recognized the role disabled workers played once again with the return of war veterans with acquired disabilities from World War II.[84] Congress established a weeklong awareness campaign in October about the benefits of employing people with physical disabilities; today, that campaign has evolved into the U.S. Department of Labor recognizing each October as National Disability Employment Awareness Month.[85]

Outside of wartime and economic depression efforts, the true fruits of the disability rights movement began with the Rehabilitation Act of 1973.[86] Under Section 503 of the Rehabilitation Act of 1973, federal contractors or subcontractors must take affirmative action to recruit, hire, promote,

---

82. Drimmer, supra note 76, at 1371.

83. Luterman, supra note 80.

84. See Act of Aug. 11, 1945, ch. 363, 59 Stat. 530, 530 (establishing National Employ the Physically Handicapped Week).

85. National Disability Employment Awareness Month, UNIV. OR. DIV. EQUITY & INCLUSION, https://inclusion.uoregon.edu/national-disability-employment-awareness-month (last visited Apr. 13, 2021); National Disability Employment Awareness Month 2020, U.S. DEPT. OF LAB. OFF. DISABILITY EMP. POL'Y, https://www.dol.gov/agencies/odep/initiatives/ndeam (last visited Apr. 13, 2021).

86. Drimmer, supra note 76, at 1381, 1384–85.

and retain employees with disabilities.[87] Section 504 of the Rehabilitation Act of 1973 prohibits discrimination against individuals with disabilities in any program or activity receiving federal financial assistance.[88] While Section 504 was signed into law with the passage of the Rehabilitation Act of 1973, it was only signed and enforced following pressure from disabled activists during the 504 Sit-In and nationwide protests and demonstrations led by people with disabilities.[89]

The culmination of all disability-related legislation was the 1990 passage of the ADA.[90] Modeled after the Civil Rights Act of 1964,[91] the ADA was intended to protect people with disabilities from discrimination

---

87. Rehabilitation Act of 1973, Pub. L. No. 93–112, 87 Stat. 355, 393 (codified as amended at 29 U.S.C. § 793); see 41 C.F.R. § 60–741.45 (2014) (explaining how the policy works today).

88. Pub. L. No. 93–112, 87 Stat. 355, 394.

89. CRIP CAMP: A DISABILITY REVOLUTION (Netflix 2020); Britta Shoot, The 1977 Disability Rights Protest That Broke Records and Changed Laws, ATLAS OBSCURA (Nov. 9, 2017), https://www.atlasobscura.com/articles/504-sit-in-san-francisco-1977-disability-rights-advocacy.

90. Shoot, supra note 89.

91. Haley Moss, Raising the Bar on Accessibility: How the Bar Admissions Process Limits Disabled Law School Graduates, 28 AM. U. J. GENDER SOC. POL'Y & L. 537, 542–43 (2020); Introduction to the ADA, ADA.GOV, https://www.ada.gov/ada_intro.htm#:~:text=Modeled%20after%20the%20Civil%20Rights,law%20for%20people%20with%20disabilities (last visited Apr. 14, 2021).

and "to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for such individuals."[92] The ADA is divided into five titles, covering employment, public entities, public accommodations, telecommunications, and other aspects of life to ensure equity for people with disabilities.[93]

B. The Great Depression's Impact: The Great Barrier to Competitive Employment

While the ADA is seen as the crowning achievement and superseding authority concerning disability employment, the vestiges of Great Depression-era disability-related legislation remain active today, and they are at odds with public policy and the goals of the ADA.[94] Both the Wagner-O'Day Act and FLSA continue to be to the detriment of individuals with disabilities.[95]

The Wagner-O'Day Act underwent several revisions and variations since its initial passage in 1938.[96] The Act was renamed the

---

92. Americans with Disabilities Act of 1990, 42 U.S.C. § 12101(a)(7).

93. Americans with Disabilities Act of 1990, Pub. L. No. 101–336, 104 Stat. 327, 327–28 (1990).

94. Zoë Brennan-Krohn, Employment for People with Disabilities: A Role for Anti-Subordination, 51 HARV. C.R.-C.L. L. REV. 239, 257 (2016).

95. Id.; see Luterman, supra note 80 (detailing the history and modern usage and issues surrounding Section 14(c) of the Fair Labor Standards Act and subminimum wage).

96. See, e.g., Act of June 23, 1971, Pub. L. No. 92–28, 85 Stat. 77 (codified as amended at 41 U.S.C. §§ 8501–8506); Act of June 30,

Javits-Wagner O'Day Act following the 1971 amendments[97] to the Act in order to include people with significant disabilities and allow for the provision of services, as well as products.[98] In 2006, the Javits-Wagner O'Day Act was renamed AbilityOne, a program governed by a fifteen-member commission that maintains a procurement list of products that the government may only purchase from qualified nonprofit agencies that employ blind or severely disabled workers.[99] AbilityOne is responsible for the employment of "approximately 45,000 people who are blind or have significant disabilities."[100] However, many of the nonprofit agencies under AbilityOne contracts are sheltered workshops and have segregated employment settings that do not promote career advancement and workplace integration for the 45,000 blind workers and individuals with more significant disabilities who participate in AbilityOne.[101]

AbilityOne also intersects with Section 14(c) of the FLSA, potentially allowing participating nonprofit agencies to become certificate holders to

---

1973, Pub. L. No. 93–76, 87 Stat. 176 (codified as amended at 41 U.S.C. §§ 8501–8506).

97. See Nat'l Fed'n of the Blind v. U.S. AbilityOne Comm'n, 421 F. Supp. 3d 102, 109 (D. Md. 2019).

98. History, ABILITYONE.GOV, https://www.abilityone.gov/abilityone_program/history.html (last visited May 27, 2021).

99. 41 U.S.C. §§ 8502, 8503(a), 8504.

100. ABILITYONE.GOV, https://www.abilityone.gov/index.html (last visited Apr. 14, 2021).

101. Brennan-Krohn, supra note 94, at 248.

pay disabled employees less than minimum wage.[102] A 2015 report from the U.S. Department of Labor found that 4,426 individuals (9.5%) working on AbilityOne contracts were paid less than minimum wage.[103] While the FLSA's low wages within sheltered workshops were intended for disabled soldiers gradually working their way back into integrated, competitive employment, the subminimum wage permitted under Section 14(c) further disadvantages workers with intellectual disabilities. The creation and persistence of additional sheltered workshops and employment opportunities are painted as a way to combat the low employment rates of people with intellectual and developmental disabilities, but actually make it more difficult for workers with intellectual disabilities to advance in their careers. The National Council on Disability views both the AbilityOne Program and Section 14(c) as outdated relics from the past

---

102. Kate McIlvanie, Comment, Seeking Equality in Wages for Employees with Intellectual and Developmental Disabilities, 40 N. ILL. U. L. REV. 70, 76–80 (2019).

103. U.S. Dept. of Lab., Advisory Comm. on Increasing Competitive Integrated Emp. for Individuals with Disabilities: Interim Report 92 (2015); see also Subminimum Wage, Commission Actions, ABILITYONE.GOV, https://www.abilityone.gov/commission/commision_declaration.html (last visited Mar. 14, 2021). AbilityOne also issued its support in 2016, calling for minimum wage for blind and significantly disabled workers under AbilityOne contracts.

that segregate employees with disabilities.[104] Per the Council's Letter of Transmittal:

> The AbilityOne Program is based on an outdated model that results in the segregation of people with disabilities and is hampered by a lack of transparency and confusion over compliance roles. Of even greater concern, despite increase in the amount of government sales from the program, the employment of people who are blind has stagnated under the program, and the employment of people with significant disabilities has declined.[105]

The National Council on Disability's argument is not unfounded. While viewed by some as giving people with disabilities a sense of pride, the overwhelming majority of employees who work for sheltered workshops do not transition to integrated or competitive employment.[106] This traps people with significant physical or intellectual disabilities in

---

104. NAT'L COUNCIL ON DISABILITY, POLICIES FROM THE PAST IN A MODERN ERA: THE UNINTENDED CONSEQUENCES OF THE ABILITYONE PROGRAM & SECTION 14(C) 1 (2020).

105. Id.

106. Steven J. Taylor, Disabled Workers Deserve Real Choices, Real Jobs, CTR. FOR AN ACCESSIBLE SOC'Y (2002), http://www.accessiblesociety.org/topics/economics-employment/shelteredwksps.html ("A mere 3.5% of people in sheltered workshops move into competitive employment in a given year.").

types of work they may not dream of doing for far less money than a nondisabled worker would be paid. Further, the Section 14(c) provision frustrates the purpose of the ADA and the landmark decision of Olmstead v. L.C. ex rel Zimring,[107] which aim to include people with disabilities in all aspects of society and increase access in the least restrictive settings.[108] Courts have found that Olmstead applies to segregated employment settings, thus allowing individuals with disabilities the right to participate within a community's workforce.[109]

While some states have statutes ending subminimum wage for workers with disabilities, Section 14(c) has yet to be eliminated at the federal level.[110] As of April 2021, governmental leaders continue to

---

107. 527 U.S. 581, 587 (1999).

108. Id. People with disabilities have a qualified right to receive state-funded support and services in the community, rather than institutions, when a three-prong test is met: (1) the person's treatment professionals determine that community supports are appropriate; (2) the person does not object to living in the community; and (3) the provision of services in the community would be a reasonable accommodation when balanced with other similarly situated individuals with disabilities. Id.

109. See Lane v. Kitzhaber, 841 F. Supp. 2d 1199, 1205–06 (D. Or. 2012); see also Complaint for Declaratory and Injunctive Relief at 9, United States v. Rhode Island, No. 1:13-cv-0042-L-PAS (D.R.I. June 13, 2013).

110. Loryn Cesario, States Weigh Options on Subminimum Wages for Workers with Disabilities, NCSL BLOG (Aug. 28, 2019), https://www.ncsl.org/blog/2019/08/28/

spearhead efforts to phase out subminimum wage for workers with disabilities; most recently, the U.S. Commission on Civil Rights found that ending the practice of subminimum wage was necessary because it "repeatedly found providers operating pursuant to Section 14(c) limiting people with disabilities participating in the program from realizing their full potential while allowing providers and associated businesses to profit from their labor."[111] Further, "failures in regulation and oversight . . . have allowed and continue to allow the program to operate without satisfying its legislative goal to meet the needs of people with disabilities to receive support necessary to become ready for employment in the competitive economy."[112]

C. Workplace Ableism: The Subtle and Overt Human Disability Biases

"Ableism is a set of beliefs or practices that discriminate against people with physical, intellectual, or psychiatric disabilities."[113] Ableism

---

states-weigh-options-on-subminimum-wages-for-workers-with-disabilities.aspx.

111. Subminimum Wages: Impacts on the Civil Rights of People with Disabilities, U.S. COMM'N ON C.R. at 219 (Sept. 2020), https://www.usccr.gov/files/2020–09–17-Subminimum-Wages-Report.pdf; see also Michelle Diament, New Push Underway to Eliminate Subminimum Wage, DISABILITYSCOOP (Apr. 16, 2021), https://www.disabilityscoop.com/2021/04/16/new-push-underway-to-eliminate-subminimum-wage/29295.

112. Subminimum Wages, supra note 111, at 219–20.

113. Leah Smith, #Ableism, CTR. FOR DISABILITY RTS., http://cdrnys.

"often rests on the assumption that disabled people need to be 'fixed' in one form or [another]."[114] Evidence of negative attitudes toward people with disabilities dates back thousands of years.[115] Take, for example, ancient Greek and Roman practices of infanticide on those born with the appearance of disability.[116] While westernized cultures have come a long way since the systematic murder of disabled newborns, people with disabilities continue to experience structural barriers preventing their full participation in society.

Those barriers are prevalent within the workplace. Prospective disabled employees and candidates often face instances of ableism—such as stereotypes, inaccessibility of job locations and applications, bullying and harassment, and denial of reasonable accommodations.[117] These barriers to access effectively deny disabled employees

---

org/blog/uncategorized/ableism (last visited Apr. 14, 2021).

114. Id.

115. Irmo Marini, Noreen M. Glover-Graf, & Michael Jay Millington, The History of Treatment Toward Persons with Disabilities, in PSYCHOSOCIAL ASPECTS OF DISABILITY 3 (Sheri W. Sassman ed., 2012).

116. Id. at 4.

117. See ABA Study Finds Prevalent Reports of Discrimination Faced by Disabled, LGBTQ+ Lawyers, AM. BAR ASS'N (July 14, 2020), https://www.americanbar.org/news/abanews/aba-news-archives/2020/07/aba-study-finds-prevalent-reports-of-discrimination-faced-by-dis.

and candidates of opportunities given to nondisabled employees and candidates.

Even in professional, white-collar work, including the legal profession, disabled employees experience ableist bias, suggesting societal attitudes towards disability are not at the mercy of educational level or professional background.[118] Compared to other marginalized groups, disabled lawyers experience more overt discrimination such as bullying and harassment, but also face subtle and unintentional bias.[119]

What are the consequences of these overt and unintentional human biases towards disability status? For starters, negative attitudes uphold a culture of nondisclosure and a shroud of secrecy surrounding disability.[120] A full 30 percent of the professional, white-collar workforce meets the definition of a person with a disability under the ADA, yet on average,

---

118. Id.

119. Id.

120. Sarah von Schrader, Valerie Malzer, & Susanne Bruyère, Perspectives on Disability Disclosure: The Importance of Employer Practices and Workplace Climate, 26 EMP. RESP. RTS. J. 237, 240 (2013); see, e.g., Brandon Lowrey, Uncounted and Overlooked: Disabled Attorneys Fight for Their Place in Law, LAW360 (Aug. 13, 2018), https://www.law360.com/article/1071971/how-the-legal-industry-lets-down-lawyers-with-disabilities ("Any perceived 'weakness,' even if that perception is based on a misperception, can be a barrier to finding, keeping, and advancing in a job.").

only 3.2 percent of employees self-identify as having a disability to their employers.[121]

D. Separating Man from Machine: Where Bias Enters Creations

Can machine learning and AI increase bias towards people with disabilities or inadvertently disclose a disabled person's disability-related traits? Human biases, especially toward people with disabilities, exist implicitly and explicitly when it comes to recruiting and hiring;[122] these biases are either amplified or minimized by the visibility of disability.[123] AI developers boast that their programs both streamline and remove bias from recruiting and hiring.[124] They are not necessarily wrong.

---

121. Laura Sherbin, Julia Taylor Kennedy, Pooja Jain-Link, & Kennedy Ihezie, Disabilities and Inclusion, COQUAL, https://coqual.org/reports/disabilities-and-inclusion (last visited Apr. 14, 2021).

122. Carli Friedman, The Relationship Between Disability Prejudice and Disability Employment Rates, RESEARCHGATE at 4 (Apr. 2019), https://www.researchgate.net/publication/332652168.

123. See, e.g., Meng-Chuan Lai, Michael V Lombardo, Amber NV Ruigrok, Bhismadev Chakrabarti, Bonnie Auyeung, Peter Szatmari, Francesca Happé, & Simon Baron-Cohen, Quantifying and Exploring Camouflaging in Men and Women with Autism, 21 AUTISM 690, 690 (2017) (explaining how camouflaging is "hiding behavior that might be viewed as socially unacceptable or artificially 'performing' social behaviour deemed to be more neurotypical . . . .").

124. Jennifer Alsever, How AI Is Changing Your Job Hunt, FORTUNE (May 19, 2017, 4:30AM), http://fortune.com/2017/05/19/

Developers have risen to the challenge of streamlining recruiting and hiring with a degree of success: AI has slowly crept into the pulse of the workplace without people realizing its impact or ability to save businesses time and money—often with an invisible human cost.[125] Less than half of Americans are aware that computer programs can review job applications without any human involvement,[126] yet nearly 33 percent of businesses use some form of AI in their hiring or human-resources practices.[127] Algorithms and AI, such as HireVue, conduct one-way video interviews with candidates, saving businesses time and money by completing ten video interviews in the time it would take a human to complete one phone interview.[128] The problem with AI displaying bias lives within the algorithms that solve problems for the computer systems and programs;

---

ai-changing-jobs-hiring-recruiting; Simon Chandler, The AI Chatbot Will Hire You Now, WIRED (Sept. 13, 2017, 6:45 AM), www.wired.com/story/the-ai-chatbot-will-hire-you-now.

125. See Chandler, supra note 124.

126. Aaron Smith & Monica Anderson, Automation in Everyday Life, PEW RSCH. CTR. (Oct. 4, 2017), http://www.pewinternet.org/2017/10/04/automation-in-everyday-life.

127. DELOITTE, Rewriting the Rules for the Digital Age: 2017 Deloitte Global Human Capital Trends 87 (2017), https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2017/predictive-hiring-talent-acquisition.html.

128. Lee, supra note 3.

"[a]lgorithms are, [at least] in part, our opinions embedded in code."[129] Biases can be amplified, rather than mitigated, in the ways developers intend them to be.

E. Automatic Screening, Amplified Bias: The Complex Idealism of HireVue

AI in hiring is surprisingly efficient at screening candidates because of its impressive speed; in the time AI is able to screen a candidate, a human would not have the chance to even review a candidate's application and resume.[130] The software analyzes resumes and personality test results so that close to 72 percent of resumes are never seen by the employer.[131]

In employment, four types of products primarily set the stage for using AI to assist in the hiring process:[132] Bots such as Mya, "automate[] the process from resume to hire,"[133] interacting with applicants in text-based interviews and chats.[134] Other systems like ARYA identify

---

129. Mann & O'Neil, supra note 50.

130. Id.

131. Id.

132. McKenzie Raub, Bots, Bias and Big Data: Artificial Intelligence, Algorithmic Bias and Disparate Impact Liability in Hiring Practices, 71 ARK. L. REV. 529, 537–39 (2018).

133. Id. at 537.

134. Ryan Prior, Your Next Job Interview Could Be with a Recruiter Bot, CNN (May 16, 2017, 9:19 AM), http://money.cnn.com/2017/05/16/technology/ai-recruiter-mya-systems/index.html.

ideal candidates and script tactful messages for recruiters to use to successfully recruit these individuals who are likely to be successful in the available role.[135] Algorithms like Pymetrics use AI and brain-based games to attempt to control for various biases against marginalized groups.[136] Finally, systems like HireVue provide videobased interviewing systems for candidates.[137]

HireVue and other forms of one-way video interviewing are of great concern to disabled job candidates, and served as the basis for the scenario in the Introduction of this Article.[138] According to a recent press release, perhaps spurred by the increase of virtual recruitment during the coronavirus pandemic, HireVue's software has assessed over 15 million job interviews to date for over 700 companies globally.[139] The software

---

135. Raub, supra note 132, at 538.

136. Leanna Garfield, A Startup Claims to Have Finally Figured Out How to Get Rid of Bias in Hiring with Artificial Intelligence, BUS. INSIDER (Sept. 25, 2017, 9:20 AM), https://www.businessinsider.com/hiring-diversity-brain-games-artificial-intelligence-automation-2017–9.

137. Raub, supra note 132, at 538; HIREVUE, https://www.hirevue.com (last visited Apr. 12, 2021).

138. See Lee, supra note 3.

139. HireVue's 15 Millionth Virtual Interview Driven by Accelerating Adoption of Hiring Best Practices, HIREVUE (July 16, 2020 7:00 AM), https://www.globenewswire.com/news-release/2020/07/16/2063193/0/en/HireVue-s-15-Millionth-Virtual-Interview-Driven-by-Accelerating-Adoption-of-Hiring-Best-Practices.html.

is now so embedded in major corporations' recruitment processes that universities teach job seekers how to best "hack" the technology and act like an ideal candidate—as defined by the algorithm.[140] According to experts, the AI judges whether someone is an ideal candidate based on their facial movements, mannerisms, and tone of voice.[141] These criteria are also areas of deficit and divergence associated with neurodivergent conditions like autism spectrum disorder and Tourette syndrome.

AI researchers, prospective employees, and others express frustration with technology like HireVue, arguing that candidates are measured against existing success stories in the workplace.[142] What is the vision of workplace success? Is it someone who is privileged in their socioeconomic status, race, gender, and ability? It is not an out-of-the-box candidate.[143] In November 2019, the Electronic Privacy Information Center filed an official complaint calling on the Federal Trade Commission to investigate HireVue for its practices, particularly highlighting one form of disability bias the HireVue video-interviewing

---

140. Drew Harwell, A Face-Scanning Algorithm Increasingly Decides Whether You Deserve the Job, WASH. POST (Nov. 6, 2019, 10:21 AM), https://www.washingtonpost.com/technology/2019/10/22/ai-hiring-face-scanning-algorithm-increasingly-decides-whether-you-deserve-job.

141. Id.

142. Harwell, supra note 140.

143. Barnes, supra note 22.

system appears to discriminate against: neurological difference.[144] The complaint explained:

> The eye movement tracking captured in video assessments could discriminate against candidates with neurological differences. Eye movement tracking technology can be used to diagnose autism, Parkinson's, Alzheimer's, and psychiatric conditions like depression. Individuals with Autism Spectrum Disorder tend to look at people's mouths rather than making eye contact.[145]

HireVue responded to these concerns with a blog post outlining best practices for accommodation and using technology to help neurodivergent candidates and companies in the process;[146] while accommodations are required under Title I of the ADA, HireVue essentially shifts the burden onto neurodivergent candidates to

---

144. Complaint and Request for Investigation, Injunction, and Other Relief at 7, In re HireVue (Nov. 6, 2019), https://context-cdn.washingtonpost.com/notes/prod/default/documents/27098c7a-a145–427e-8d30-f47ae75d6ecc/note/a99449c7–593f-49fa-ade5–1392d2dbd745.pdf#page=1.

145. Id.

146. Chelsea Kilpack, Best Practices for Hiring Neurodivergent Candidates & Tips for Autistic Candidates, HIREVUE (Oct. 27, 2020), https://www.hirevue.com/blog/hiring/best-practices-for-hiring-neurodiverse-candidates-for-autistic-candidates.

mitigate their neurodiversity to best match what HireVue scores as an ideal candidate.[147]

While HireVue acknowledged the bias regarding neurodivergent candidates, is HireVue liable for its bias against people with disabilities? Bias may not always rise to the level of legal liability. HireVue's CEO wrote in the Connecticut Law Tribune that "virtual interview tech companies work to train the algorithms used to create virtual interview assessments on an ongoing basis, working to mitigate the impact of conscious and unconscious human bias in the interviewing process."[148] The bias that HireVue is particularly concerned with combating is known in labor law circles as disparate or adverse impact.[149]

---

147. Id. (preparing neurodiverse candidates to successfully interview using HireVue).

148. Kevin Parker, Post-Lockdown, An Opportunity to Prioritize Diversity and Inclusion, 46 CONN. L. TRIB. 24, 25 (2020).

149. Nathan Mondragon, What is Adverse Impact? And Why Measuring It Matters, HIREVUE (Mar. 25, 2018), https://www.hirevue.com/blog/hiring/what-is-adverse-impact-and-why-measuring-it-matters; see Michael J. Bologna, Law on Hiring Robots Could Trigger Litigation for Employers, BLOOMBERG (Oct. 11, 2019), https://news.bloomberglaw.com/daily-labor-report/law-on-hiring-robots-could-trigger-litigation-for-employers.

III. You're (Not) Hired: Artificially Intelligent and Realistically Discriminatory

To mitigate bias toward marginalized groups in hiring and recruiting, the Supreme Court established the disparate-impact rule in Griggs v. Duke Power Co.[150] In Griggs, the Court held that Title VII of the Civil Rights Act of 1964 "proscribes not only overt discrimination but also practices that are fair in form, but discriminatory in operation."[151] In essence, the Court laid out what would eventually be the evolution of disparate-impact liability. Guidance from the U.S. Equal Employment Opportunity Commission (EEOC) beginning in 1978 laid out the four-fifths rule, which courts look to for guidance in gauging the statistical evidence of discrimination.[152] The fourth-fifths rule is defined as:

> A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact. Smaller differences in selection rate

---

150. 401 U.S. 424, 431 (1971) (finding that the employer's use of a general intelligence test to determine promotions violated Title VII of the Civil Rights Act of 1964 because the test was not significantly correlated to work performance).

151. Id.

152. 29 C.F.R. § 1607.4(D) (1978).

> may nonetheless constitute adverse impact, where they are significant in both statistical and practical terms . . . .[153]

The fourfifths rule "is not binding on courts, and is merely a 'rule of thumb' to be considered in appropriate circumstances."[154] The four-fifths rule works well for Title VII categories that exist in more traditional binaries, like race or gender; after all, it is a response to the Griggs decision.[155] Applying the four-fifths rule to analyze disparate or adverse impact against people with disabilities can be problematic. Audits that detect algorithmic discrimination against women and people of color do not often work with disability because of the complexity of disabled experiences.[156] Alexandra Reeve Givens notes disability status is not always disclosed, so the data set may not even exist for algorithmic machine learning and AI fairness under the four-fifths rule.[157] Even if it was always disclosed, Givens poses,

---

153. Id.

154. EEOC v. Joint Apprenticeship Comm. of the Joint Indus. Bd. of the Elec. Indus., 186 F.3d 110, 118 (2d. Cir. 1998).

155. Id. at 116–17; see also § 1607.4(D).

156. Alexandra Reeve Givens, How Algorithmic Bias Hurts People With Disabilities, SLATE (Feb. 6, 2020, 5:15 PM), https://slate.com/technology/2020/02/algorithmic-bias-people-with-disabilities.html.

157. Partnership on Employment & Accessible Technology, Podcast: Protecting People with Disabilities Against Discrimination with AI in Employment, P'SHIP ON EMP. & ACCESSIBLE TECH. (Jul. 12, 2020), https://peatworks.org/

> [W]hat level of aggregation of disability should we be looking at? If you just compare how people that identify as disabled in some way do against non-disabled people, that's actually not going to tell you very much, because there are so many different forms of disability that people will be affected in very different ways.[158]

Courts, legislation, and public policy alike continue to analyze how disparate-impact claims collide with technology and the modern generation of civil rights laws—including the ADA.[159]

A. The ADA: Where Civil Rights and AI Collide

Similar to Title VII of the Civil Rights Act of 1964, Title I of the ADA gives workers with disabilities the opportunity to prove themselves.[160] Title I of the ADA prohibits employers and covered entities with fifteen or more employees[161] from discriminating "against a qualified individual on the basis of disability in regard to job application procedures, the hiring, advancement, or discharge of employees, employee compensation, job

---

podcast-protecting-people-with-disabilities-against-discrimination-with-ai-in-employment.

158. Id.

159. See Michael Ashley Stein & Michael E. Waterstone, Disability, Disparate Impact, and Class Actions, 56 DUKE L.J. 861, 868–69 (2006).

160. See 42 U.S.C. § 12112(a) (2009).

161. Id. § 12111(2), (5)(A).

training, and other terms and conditions of employment."[162] In addition to nondiscrimination, covered employers and entities are required to grant reasonable accommodations to disabled job applicants and employees, provided they do not cause undue hardship.[163] Undue hardship refers not only to financial difficulty, but to reasonable accommodations that are unduly extensive, substantial, or disruptive, or those that would fundamentally alter the nature or operation of the business.[164]

Perhaps realizing the effects the ADA would have on disabled employees and the businesses seeking to employ them, former President George H.W. Bush had a special message for the public and private sectors when it came to embracing disability diversity within the employment sphere when he signed the ADA into law on July 26, 1990:

> I also want to say a special word to our friends in the business community. You have in your hands the key to the success of [the ADA], for you can unlock a splendid resource of untapped human potential that, when freed, will enrich us all. . . . Well, many of our fellow citizens with disabilities are unemployed. They want to work, and they can work, and

---

162. § 12112(a).

163. See § 12112(b)(5)(A) (it is a form of discrimination to fail to provide a reasonable accommodation "unless such covered entity can demonstrate that the accommodation would impose an undue hardship . . . ."); see also § 12111(10) (defining "undue hardship" based on factors assessing cost and difficulty).

164. See § 12111(10); 29 C.F.R. § 1630.2(p) (1997).

> this is a tremendous pool of people. And remember, this is a tremendous pool of people who will bring to jobs diversity, loyalty, proven low turnover rate, and only one request: the chance to prove themselves.[165]

B. Disparate Impact and The ADA

The chance for employees with disabilities to prove themselves is threatened by disparate impact that seemingly neutral employment practices may adversely have on candidates with disabilities. Title VII of the Civil Rights Act and the Griggs decision foreshadowed the future of disability discrimination; while the Civil Rights Act of 1964 did not explicitly cover disability, Title VII is seen as the precursor to Title I of the ADA.[166]

Courts have found disparate impact in labor law also applies to employment contexts surrounding people with disabilities.[167] In Raytheon Co. v. Hernandez,[168] the Supreme Court clarified the difference between disparate-treatment and disparate-impact claims;[169] the case was remanded because of the lower court's misapplication of the two

---

165. George H.W. Bush, Remarks at the Signing of the Americans with Disabilities Act (Jul. 26, 1990).

166. See Dinerstein, supra note 29.

167. See Raytheon Co. v. Hernandez, 540 U.S. 44, 55 (2003).

168. Id. at 44.

169. Id. at 52–53.

theories.[170] Disparate-treatment claims arise when an employer treats a group of people less favorably than others because of a protected characteristic.[171] Liability depends on whether the protected trait actually motivated the employer's action.[172] Disparate-impact claims involve facially neutral employment practices that fall more harshly on one group than another and cannot be justified by business necessity.[173] "Both disparate-treatment and disparate-impact claims are cognizable under the ADA."[174]

To prove disparate treatment under the ADA or another civil rights statute in a labor law context, the Supreme Court held in McDonnell Douglas Corp. v. Greene175 that a plaintiff must first establish a prima facie case of discrimination, and then the burden shifts to the employer to articulate a legitimate, nondiscriminatory reason for its employment action.[176] In the case of AI, it might be entirely possible for a disabled candidate to establish discrimination on the basis of disability—reasonable accommodation was denied because an algorithm determined that specific disability traits were less than ideal

---

170. Id. at 54.

171. Id. at 52 (quoting Teamsters v. United States, 431 U.S. 324, 335 n.15 (1977)).

172. Id. at 54.

173. Id.

174. Id. at 53.

175. 411 U.S. 792 (1973).

176. Id. at 802.

or undesirable. But the employer burden may not give rise to a full disparate-treatment claim because using AI in hiring to streamline the process may be interpreted as a legitimate, nondiscriminatory reason for not selecting disabled candidates, a far cry from standardized tests that disadvantage racial minorities[177] or the drug tests that disadvantaged the plaintiff who struggled with substance abuse disorder in Hernandez.[178]

The ADA has specific language prohibiting an employer from using selection criteria, either in an individual or group setting, that screens out disabled candidates, unless the criteria is "job-related" and "consistent with business necessity."[179] Three other ADA provisions prohibit disparate impact on applicants and employees with disabilities.[180] The ADA prohibits (1) limiting, segregating, and classifying an applicant or employee "in a way that adversely affects" their opportunities or status because of their disability; (2) contractual or other relationships that have the effect of disability discrimination; and (3) "utilizing standards, criteria, or methods of administration" that have the effect of disability discrimination.[181]

Title I of the ADA has been implicated in finding exams and standardized tests discriminatory in the use of hiring. In the Seventh

---

177. Griggs v. Duke Power Co., 401 U.S. 424, 425 (1971).

178. Hernandez, 540 U.S. at 45.

179. BROWN ET AL., supra note 48, at 4.

180. Id. at 8 n.2.

181. Id.; see 42 U.S.C. § 12112 (2009); 29 C.F.R. § 1630.5–.7 (2019).

Circuit's decision in Karraker v. Rent-A-Center,[182] the court held tests developed by psychiatrists to measure personality traits used in the context of hiring and interviewing can be seen as pre-employment medical exams under the ADA,[183] thus having a discriminatory effect against applicants with disabilities.[184]

Algorithms used by companies such as HireVue take into account notions regarding candidates with disabilities.[185] But who should be liable when there is still bias from AI against disabled job candidates? The developers at HireVue, who designed a biased, ableist form of AI, or the companies using HireVue who also screened out candidates without providing opportunities or a human review of disabled candidates' applications and interviews?[186] Employers and developers alike are trying to solve this conundrum: "vendors are including indemnification agreements to help reassure employers that their" AI tools are appropriate for business use.[187]

---

182. 411 F.3d 831 (7th Cir. 2005).

183. 42 U.S.C. § 12112(d)(1). Title I of the ADA limits the use of "medical examinations and inquiries" as a condition of employment that lack job relatedness and business necessity in § 12122(d)(4)(A) and prohibits the use of tests that screen out (or tend to screen out) people with disabilities in § 12112(b)(5)(6).

184. Karraker, 411 F.3d at 837.

185. See Kilpack, supra note 146.

186. Id.

187. Partnership on Employment, supra note 157.

While algorithmic fairness under the ADA is a new front for litigation, the confines of the ADA suggest the employer is the entity that must be compliant with the ADA and ensure their practices do not discriminate or have an adverse impact on job seekers with disabilities.[188] Further guidance from the EEOC can shed some light on how algorithms and AI should be designed and operating in compliance with the ADA.[189]

C. Disrupting Federal Affirmative Action and Inclusion: Section 503 of the Rehabilitation Act

Section 503 of the Rehabilitation Act sets lofty goals to include workers with disabilities. First enacted in 1973, and a precursor to the ADA, Section 503 prohibits employment discrimination on the basis of disability by federal contractors.[190] Each covered federal contractor must "take affirmative action to employ and advance in employment qualified individuals with disabilities."[191] In addition to covering federal agencies, Section 503 generally applies to any business or organization that holds at least one federal contract or subcontract in excess of $15,000.[192]

---

188. Id.

189. Engler, supra note 4.

190. 29 U.S.C. § 793 (2012).

191. Id.

192. Proposed Renewal of Information Collection Requirements; Comment Request, 80 Fed. Reg. 66,572 n.1 (Oct. 29, 2015) ("Effective October 1, 2010, the coverage threshold under Section 503 increased from $10,000 to $15,000, in accordance with the inflationary adjustment required under 41 U.S.C. § 1908.").

Those contractors with fifty or more employees and a single federal contract or subcontract of at least $50,000 must develop and maintain a compliant affirmative-action program.[193] Such affirmative-action programs require contractors to reach an aspirational 7 percent utilization goal for individuals with disabilities.[194]

In addition to similar policy and liability considerations as the ADA, Section 503 intersects with other existing policies as well.[195] AbilityOne vendors, considered either federal contractors or subcontractors because of the government's obligation to purchase products manufactured by blind or significantly disabled individuals, should update practices to be compliant with the affirmative-action programming and nondiscrimination.[196] To do this, the National Council on Disability recommends that Congress phase out the AbilityOne Program and "replace the program by requiring that federal contractors hire a percentage of people who are blind or have . . . significant disabilit[ies]"[197]—effectively echoing the intent of Section 503.[198] A crucial additional step in addressing disability discrimination is phasing out Section 14(c) of the FLSA, which allows subminimum wage. Further,

---

193. 41 C.F.R. § 60–741.40 (2002).

194. § 60–741.45.

195. See, e.g., § 793.

196. NAT'L COUNCIL ON DISABILITY, supra note 104, at 41.

197. Id. at 11.

198. § 793.

any wage policy affecting disabled employees should be governed by the rules regarding disparate impact.[199]

However, if federal contractors and subcontractors use AI and algorithm-driven hiring tools to recruit disabled applicants, "[t]he Office of Federal Contractor Compliance Programs . . . should update its Section 503 regulations to extend contractors' recordkeeping obligations to disabled applicants applying through algorithm-driven hiring tools."[200]

IV. Disabling Automated Ableism in Job Recruitment and Hiring Processes

To eliminate bias and discrimination in the future of AI, the safest way to begin is to "incorporat[e] nondiscrimination in the initial design of algorithms."[201] But achieving nondiscrimination at the onset of design does not occur in a vacuum: it requires accountability, especially when it comes to instances of ableism that most designers and programmers do not account for in the same way they do other protected characteristics.[202]

---

199. See Noah D. Zatz, The Minimum Wage as a Civil Rights Protection: An Alternative to Antipoverty Arguments?, 2009 U. CHI. LEGAL F. 1, 7 (2009).

200. BROWN ET AL., supra note 48, at 19.

201. Joshua A. Kroll, Joanna Huey, Solon Barocas, Edward W. Felten, Joel R. Reidenberg, David G. Robinson, & Harlan Yu, Accountable Algorithms, 165 U. PA. L. REV. 633, 695 (2017).

202. Id. at 696.

People with disabilities must be represented more frequently and accurately within data sets, primarily in the hiring space. As previously discussed, this issue is exacerbated by the nondisclosure of disability.[203] Simply collecting more data on visibly or openly disabled users does improve AI and algorithms.[204] "Data profiles of people with disabilities are sometimes easy to spot, which makes privacy a concern—especially for conditions that have a high chance for stigmatization, like mental health [disabilities]."[205] Further, creators must incorporate principles of disability justice in emerging technology, recognizing that disability intersects with other forms of marginalization such as race, sex and gender identity, sexual orientation, immigration status, additional disabilities, and more.

Issues with HireVue continue to permeate as video-interviewing technology, based on questionable science and psychology, explode in popularity and usage.[206] In addition to the Federal Trade Commission complaint investigating HireVue's potentially discriminatory practices, researchers are calling for the EEOC to investigate and review these systems and issue guidance on their compliance or potential violations of the ADA.[207] An EEOC investigation would lead to clear responsibilities for employers using such software and for developers to combat their

---

203. See, e.g., Lowrey, supra note 120 (discussing how lawyers with disabilities do not often disclose their disabilities at their jobs).

204. Id.

205. Snow, supra note 58.

206. Harwell, supra note 140.

207. Engler, supra note 4.

own biases in writing new code. While government investigation into AI in recruitment and hiring is looming, there is action that can be taken in the early stages of technological innovation and in everyday business practices that could help eliminate bias.[208]

To help combat ableism in the technology sector—where algorithms are developed—and within human resources, job recruitment, and hiring processes, concrete steps must be taken. These steps should include (1) increasing the diversity among those writing code and algorithms to be representative of all kinds of human diversity; (2) having implicit and explicit bias training and awareness for developers to have a better informed technology sector at the outset; and (3) weaning companies off automation in hiring, encouraging further human review of job applications, and returning to human resources professionals and potential direct supervisors conducting job interviews. Such proposals can lead to further justice and reduced liability associated with AI, labor and employment law, and compliance with the ADA.[209]

A. Increasing Diversity in Algorithm Authors

The fields of science, technology, engineering, and math (STEM) are not particularly diverse, nor do they reflect the diversity of the

---

208. Id.

209. See Gary D. Friedman & Thomas McCarthy, Employment Law Red Flags in the Use of Artificial Intelligence in Hiring, AM. BAR ASS'N: BUS. L. TODAY (Oct. 1, 2020), https://www.americanbar.org/groups/business_law/publications/blt/2020/10/ai-in-hiring.

Disability community.[210] Controlling for disability bias proves to be increasingly difficult.[211] "[T]he diversity of disabilities mean[s] that the group is . . . made up of [many] . . . diverse subsets of people."[212] No two disabilities have the exact same presentation, nor are any two disabled individuals identical in terms of traits or the impact a disability has on their lives.[213] How a person experiences disability depends on the profile of their identity: their race, national origin, age, gender, sexuality, location, level of education, and socioeconomic status.[214] The STEM field already gatekeeps and remains exclusionary based on educational background, race, and sex: over 75 percent of programmers hold a bachelor's degree or higher,[215] while only 19.4 percent of people

---

210. Peter DeWitt, Why Are Students with Disabilities So Invisible in STEM Education, EDUCATIONWEEK (July 27, 2020), https://www.edweek.org/education/opinion-why-are-students-with-disabilities-so-invisible-in-stem-education/2020/07.

211. Dana Wilkie, Challenges Confront Disabled Who Pursue STEM Careers, SOC'Y FOR HUM. RSCH. MGMT. (Aug. 7, 2014), https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/disabled-in-stem-careers.aspx.

212. Partnership on Employment, supra note 157.

213. Disabilities: Definition, Types, and Models of Disability, DISABLED WORLD, https://www.disabled-world.com/disability/types (last modified Dec. 14, 2019).

214. See SINS INVALID, supra note 38, at 14–15.

215. Developer Survey Results 2017, STACK OVERFLOW, https://

working in software development are women, 6.2 percent are Black, and 5.9 percent are Hispanic or Latino.[216] Disability status is not always accounted for in all diversity or demographic data among programmers or STEM professionals;[217] again, many workers with disabilities decline to self-identify, or such data remains private for accommodation purposes only.[218]

However, autistic college students show promise in the field of STEM, with autistic students declaring STEM majors at greater rates than the general population.[219] It has long been suspected that autism spectrum disorder is prevalent within Silicon Valley,[220] yet the employment rates of autistic adults may suggest otherwise.[221] Autistic employment is

---

insights.stackoverflow.com/survey/2017 (last visited Apr. 15, 2021).

216. Labor Force Statistics from the Current Population Survey, U.S. BUREAU LAB. STATS., https://www.bls.gov/cps/cpsaat11.htm (last modified Jan. 22, 2021).

217. See id.; see also Developer Survey Results 2017, supra note 215.

218. See Sherbin et al., supra note 121.

219. Daniela Zapata, The Connection Between Autism and STEM Fields, MANIFEZT FOUND. (Jul 3, 2018), https://www.manifezt.org/the-connection-between-autism-and-stem-fields.

220. Steve Silberman, The Geek Syndrome, WIRED (Dec. 1, 2001, 12:00 PM), https://www.wired.com/2001/12/aspergers.

221. See Calvin Solomon, Autism and Employment: Implications for Employers and Adults with ASD, 50 J. AUTISM & DEV. DISORDERS 4209, 4209–10 (2020).

a growing workplace trend to combat historic unemployment and underemployment.[222] Increasing the diversity of disability representation in STEM fields—not just with autistic people, but with people who have all types of disabilities—would help to eliminate the ableist biases within algorithms and AI. Such algorithms and computers often reflect the biases of their authors and creators, and having creators who are often marginalized by society would be a concrete step taken to rectify the preexisting implicit biases.[223] Without this, "the homogenous nature of the [tech] industry allows for homogenous opinions and worldviews to creep into the algorithms that assist in hiring decisions."[224]

B. Implicit and Explicit Bias Training for AI Developers

Many managers, executives, and human resources professionals are currently required to participate in bias elimination trainings.[225] "[I]mplicit bias refers to the attitudes or stereotypes that affect [one's] understanding, actions, and decisions in an unconscious manner. These biases, [encompassing] both favorable and unfavorable assessments,

---

222. See generally Wendy F. Hensel, People with Autism Spectrum Disorder in the Workplace: An Expanding Legal Frontier, 52 HARV. C.R.-C.L. L. REV. 73, 75, 85 (2017).

223. See James Manyika, Jake Silberg, & Brittany Presten, What Do We Do About the Biases in AI?, HARV. BUS. REV. (Oct. 25, 2019), https://hbr.org/2019/10/what-do-we-do-about-the-biases-in-ai.

224. Raub, supra note 132, at 568.

225. Frank Dobbin & Alexandra Kalev, Why Doesn't Diversity Training Work?, 10 ANTHROPOLOGY NOW 48, 48, 52 (2018).

are activated involuntarily and without an individual's awareness or intentional control."[226] Each of us has implicit biases, whether or not we recognize them.[227] Explicit bias, on the other hand, is more overt; these biases are conscious when people are clear about their feelings or attitudes, and their actions reflect them.[228] At the extremes, explicit or conscious bias is "characterized by overt negative behavior that can be expressed through physical and verbal harassment or through more subtle means such as exclusion."[229] Unconscious or implicit biases toward disabled people are more prevalent than they are toward other marginalized groups.[230] These prejudices result in higher unemployment rates[231] and greater salary disparities between employees with a disability

---

226. Understanding Implicit Bias, THE KIRWAN INST. (May 29, 2012), https://kirwaninstitute.osu.edu/article/understanding-implicit-bias.

227. Karen Steinhauser, Everyone Is a Little Bit Biased, BUS. L. TODAY (Mar. 16, 2020), https://www.americanbar.org/groups/business_law/publications/blt/2020/04/everyone-is-biased.

228. Two Types of Bias, GEO. NAT'L CTR. FOR CULTURAL COMPETENCE, https://nccc.georgetown.edu/bias/module-3/1.php (last visited Apr. 15, 2021).

229. Id.

230. Implicit Biases & People with Disabilities, AM. BAR ASS'N COMM'N ON DISABILITY RTS. (Jan. 7, 2019), www.americanbar.org/groups/diversity/disabilityrights/resources/implicit_bias.

231. Friedman, supra note 122, at 9–10.

and employees without a disability.[232] Further, one study suggests that nondisabled adults view their disabled peers as less productive than their nondisabled peers.[233]

Recognizing how programmers and developers, along with other humans, feel on a conscious and subconscious level about marginalized groups—especially disabled people—can help developers expose ableism and turn their newfound awareness into actions that put accessibility at the forefront. This way, newly developed algorithms do not reflect the real-world biases of their creators and instead make creators more aware of, and account for, their biases.

C. Encouraging Human Review of Job Applications and Interviews

How can human reviewers combat bias within the hiring process? "One way to avoid algorithmic bias is to stop making hard screening decisions based solely on an algorithm. Encourage a human review that will ask experienced professionals who have been through bias training

---

232. Michelle Yin, Dahlia Shaewitz, & Mahlet Megra, Leading the Way, or Falling Behind? What the Data Tell Us About Disability Pay Equity and Opportunity in Boston and Other Top Metropolitan Areas, AM. INST. RES. (2020), https://rudermanfoundation.org/white_papers/leading-the-way-or-falling-behind-what-the-data-tell-us-about-disability-pay-equity-and-opportunity-in-boston-and-other-top-metropolitan-areas.

233. Shelly Maciujec, Unconscious Bias Towards People with Disabilities in the Workplace, ABILITY MAG., https://abilitymagazine.com/unconscious-bias-pwds-workplace (last visited Apr. 15, 2021).

to oversee selection and evaluation."[234] Humans should increasingly focus on reviewing job applications and continue conducting interviews. That is not to say that AI has no purpose in aiding in those steps within the recruiting and hiring process; simply, algorithms should not be the sole basis for determining whether or not a candidate is qualified. "Let decisions be guided by an algorithm-informed individual, rather than by an algorithm alone."[235]

D. Seeking Perfection? Dispelling the Notion of the "Ideal" Job Candidate

A human review of candidates can also provide greater opportunity for disabled candidates who are treated unfairly in recruitment both by people and technology because of the idea of what a "good" employee can and should be. But what makes a good employee? Former President H.W. Bush previously implored businesses to see the value in employees with disabilities—they are historically loyal, improve corporate financial returns, and have low turnover.[236] Like former President H.W. Bush said, people with disabilities need to be given the chance to succeed.[237]

---

234. Mann & O'Neil, supra note 50.

235. Id.

236. See Jared Lindzon, Why Companies Who Hire People with Disabilities Outperformed Their Peers, FAST CO. (Mar. 13, 2019), https://www.fastcompany.com/90311742/why-companies-who-hire-people-with-disabilities-outperformed-their-peers.

237. George H.W. Bush, supra note 165.

> Algorithm-driven hiring tools typically assess candidates based on how they perform on a given test compared to a model set of successful employees. Employers may be tempted to use these tools without stopping to consider what exactly they are testing for, or why[.] [S]pecifically, what traits are really being measured by an online game, and whether what is being measured is actually necessary to perform the essential functions of the job.[238]

AI screens out such a wide array of resumes and focuses on preconceived, subjective notions of a good employee.[239] Doing so perpetuates the idea that good employees do not need accommodations and might require less training because they already have more experience, and are highly productive and efficient. There is no such thing as perfection, and solely measuring human productivity and efficiency veers dangerously towards entirely replacing human labor with automation.

With the right support, understanding, and recognition of talent and qualification, people with disabilities can be the "ideal" candidate, providing more value to a business or organization than simply meeting the qualifications for a job posting.[240] Favorable public perception, loyalty,

---

238. BROWN ET AL., supra note 48, at 4.

239. Brian O'Connell, Five Recruiting Trends for the New Decade, SOC'Y FOR HUM. RES. MGMT. (Nov. 16, 2019), https://www.shrm.org/hr-today/news/all-things-work/pages/five-recruiting-trends.aspx.

240. See, e.g., Robert D. Austin & Gary P. Pisano, Neurodiversity as

increased profits,[241] and low turnover all are intangible qualities that improve businesses' bottom lines when companies employ people with disabilities.[242]

Conclusion

AI has already entered our lives in both subtle and overt ways, managing to make everyday life less complicated while also posing new challenges in privacy, ethics, and bias. While AI promises to streamline and reduce costs associated with recruitment and hiring, it has already had a prejudicial effect on job seekers with disabilities who already experience systemic oppression. People with disabilities must be viewed as integral innovators and participants in our workforce and communities. Because AI and video interviewing are likely here to stay, AI developers and human-resources professionals alike must account for their own ableist implicit and explicit biases. Further, the EEOC must review and issue guidance on how to responsibly use AI in workplace

---

a Competitive Advantage, HARV. BUS. REV. (May 2017), https://hbr.org/2017/05/neurodiversity-as-a-competitive-advantage; Haley Moss, Hiring Neurodiverse People Like Me Can Give Companies a Competitive Advantage, WASH. POST (Oct. 17, 2019, 4:00 AM), https://www.washingtonpost.com/outlook/2019/10/17/hiring-neurodiverse-people-like-me-can-give-companies-competitive-advantage.

241. Lindzon, supra note 236.

242. Life Skills, Benefits of Employing People with Disabilities, DISABLED WORLD (Oct. 15, 2009), https://www.disabled-world.com/disability/employment/usa/benefits-employing-disabilities.php.

settings without running afoul of the ADA. And we must increase disability diversity within all employment sectors to truly embody the spirit of inclusion and longfought civil rights victories. If we do not, all innovation can make our future look bleaker by forcing the tapestry of human diversity into the past as automation and an idealized version of a human becomes the norm.