



Managed by a Robot or Microchip? A Legal Overview of Disability Discrimination Caused by Artificial Intelligence

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1

1

Does Anybody Remember Robby the Robot?



- “These are the players — with or without a scorecard. In one corner a machine; in the other, one Wallace V. Whipple, man. And the game? It happens to be the historical battle between flesh and steel, between the brain of man and the product of man's brain. We don't make book on this one and predict no winner....but we can tell you for this particular contest, there is standing room only — in the Twilight Zone.”

Rod Serling



2

2

The Problem with Artificial Intelligence and Machine Learning (ML)

- The predictive strength of any AI or ML algorithm is based on the information it is fed by human sources.
- This creates the concern that the technology could perpetuate existing biases – whether against people applying for jobs, home loans, or unemployment insurance.
- Any issue surrounding the adoption of artificial intelligence to perform business functions normally performed by humans is uncharted ethical and legal territory.

3

3

Employment Watch Blog Warning



- “Employers are turning to screening algorithms, often complex and nonlinear, that assess, score, and rank applicants to help hiring managers decide who should move on to the next stage of hiring. A substantial number of job applicants are automatically... rejected at this stage—in this sense, screening algorithms act as gatekeepers to economic opportunity.”
- “Algorithms can also replicate and deepen existing inequities. Hiring algorithms trained on inaccurate, biased, or unrepresentative data can produce employment outcomes biased along lines of race, sex, or other characteristics protected by antidiscrimination law.”

UNext50 (Urban Institute) 2019-Urban Institute’s recent Next50 Changemaker Forum Blog post [“Artificial Intelligence and Its Impact on the Future of Employment Equity”](#), [Jenny R. Yang](#) and [Bapuchandra Kotapati](#)

4

4

EEOC Defines AI and ML

- EEOC defines an “algorithm” as a set of instructions that can be followed by a computer to accomplish some end. National Artificial Intelligence Initiative Act of 2020 at section 5002(3).
- The [National Artificial Intelligence Initiative Act](#) (NAIIA) defines AI as a “machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments.”
- EEOC also references the [National Institute of Standards and Technology Special Publication 1270](#), Towards a Standard for Identifying and Managing Bias in Artificial Intelligence.

5

5

Who is liable when a robot discriminates?



- In 2019 Amazon scrapped a resume screening model that penalized resumes with the word “women’s” —as in “women’s chess club captain” —and downgraded graduates of two all-women’s colleges. The spurious correlation the screening model relied on was attributed to training data that was heavily skewed toward male applicants.
- [2021 - Bloomberg - Fired by Bot at Amazon](#) - Contract drivers say algorithms terminate them by email—even when they have done nothing wrong.
- The AI penalized drivers for issues beyond their control; e.g., bad traffic, gates not opening, vehicle breakdowns, etc.
- No recourse for contract gig drivers – must pay \$200 to seek mandated Binding Arbitration.

6

6

Early EEOC Guidance -1

- Hiring algorithms are similar to written tests and other assessments employers have long used to weed out job candidates;
- EEOC guidance on use of tests--published in 1978--stressed the need for the results to be validated; i.e., to show that they accurately gauge a person's ability to perform the job;
- The guidance also made clear the responsibility is on the employer using the test--even if it was created by outside vendors.
- These EEOC policies remain in effect today in 2022.

7

7

Early EEOC Guidance- 2

- While vendor documentation supporting validity of a test may be helpful, the employer is still responsible for ensuring that its tests are valid; i.e., job related, business necessary, or non-discriminatory;
- A vendor's word that a hiring algorithm has been properly vetted will not be much of a defense in court;
- Diego: Today vendors have so far largely been unwilling to let buyers scrutinize their algorithms for fear of exposing proprietary technology.

8

8

2022 EEOC-DOJ Joint Guidance -1

- Title: [The Americans with Disabilities Act and the Use of Software, Algorithms, and Artificial Intelligence to Assess Job Applicants and Employees.](#)
- Advises employers that the use of artificial intelligence (AI) and algorithmic decision-making processes to make employment decisions could result in unlawful discrimination against applicants and employees with disabilities;
- The guidance clarifies that employers are responsible for ensuring their hiring technologies—including embedded AI—comply fully with the ADA—even if the technology is administered by a third party vendor.

9

9

2022 EEOC-DOJ Joint Guidance- 2

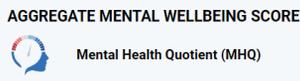
- If the use of an AI or ML technology has the effect of screening out applicants with disabilities, or adversely impacting individuals with a disability, the employer may violate the ADA—regardless of intent.
- If the technology is not accessible to an applicant due to a disability, the employer has an obligation to make a reasonable accommodation—even if the request is made in connection with the third party vendor who sells and manages the technology.

10

10

Examples of AI in hiring

- Advertising jobs to targeted applicants;
- Application screening software prioritizing applicants using keywords or automatically screening out individuals without certain qualifications;
- Testing software that grades job applicants or employees on personality traits, aptitudes, or cognitive skills—including time spent taking the test;
- Online interviewing “chat” boxes or “chat-bots;”
- Scoring resumes based on vague or unexplained criteria.



11

11

Examples of AI During Employment

- Automated AI-ML tools that organize work schedules and select which employees work in a given schedule;
- AI that monitors employee location, productivity and performance;
- Other AI-ML tools used to make pay, disciplinary, and termination decisions.



12

12

Common barriers to access present in web or computer-based tools

- Incompatibility with screen-reading software used by blind and visually impaired users;
- Color contrast issues posing barriers for individuals with color deficiencies or epilepsy;
- Videos lacking alternative text or closed captions for individuals with hearing impairments;
- Use of timers or timing schemes that impose barriers for individuals with intellectual or dexterity disabilities preventing use of keyboard or mouse.



13

13



eyebobs

Beware of AI-driven Web Accessibility Review Tools

- [AccessiBe](#) says it can simplify the work of making websites accessible to people with impaired vision or other challenges by “replacing a costly, manual process with an automated, state-of-the-art AI technology.”
- In a lawsuit filed against [Eyebobs](#) in January, Murphy alleged that the retailer failed to provide people using screen readers equal access to its services and that the technology from AccessiBe—not party to the suit—doesn’t work as advertised.
- Eyebobs agreed to a settlement in which it denied Murphy’s allegations but agreed to hire an accessibility consultant to help overhaul its website and mobile apps and dedicate staff to the issue.

See: [Murphy v. Eyebobs, LLC, 1:21-cv-00017 \(Erie\) \(W.D. Pa. Oct. 6, 2021\)](#)

14

14

Illustration of Potential Problems 1

- AI decision-making tool unable to distinguish limitations created by a disability; i.e., the tool measures the extent of the disability instead of what it purports to measure;
- If an application or resume of an applicant is rejected because a disability caused a low or unacceptable rating, the applicant will be effectively screened out because of the disability; e.g., visually impaired applicants who require longer testing or form completion times because text-to-speech screen readers can only read on a line-by-line basis or because the web-based process is inaccessible.

15

15

Illustration of Potential Problems 2

- Video interviewing software that analyzes applicants' speech patterns to reach conclusions about their ability to solve problems is not likely to score an applicant fairly if the applicant has a speech impediment that causes significant differences in speech patterns.”
- Video interviewing tools that measure facial expressions and/or eye contact—e.g., how many smiles, winks, blinks, frowns, and/or neutral or blank expressions. Many individuals have disabilities that affect facial and physical expressions.

16

16

Beware of Personality Assessments

- In 2012, college engineering student [Kyle Behm](#) applied for a number of hourly jobs at retail stores. Behm had worked in similar positions, but the jobs he applied for required personality assessments. Kyle had been diagnosed with bipolar disorder, so questions about whether he experienced mood changes led many of the retailers to reject him even though he was well qualified.
- Note how asking about “mood changes” is an unlawful medical inquiry that can illicit disability information?

WSJ Article- [Are Workplace Personality Tests Fair?](#)

17

17

Three Ways Bias May be Introduced to AI-ML

1. Biased data. Data used to train algorithms can introduce bias; e.g., Amazon’s model—trained on 10 years of resumes submitted primarily by men—learned to penalize female applicants.
2. Biased variables. Variables used in algorithms can contain bias and models can learn to use proxies for protected characteristics; e.g., zip codes as a proxy for race.
3. Biased decisions. Humans may misuse models’ predictions and place undue weight on them, leading to discriminatory decisions.

18

18

The Black Box Syndrome?

- Many systems operate as a “black box”-- meaning vendors of algorithmic systems do not disclose how inputs lead to decisions.
- AI Systems may rely on inaccurate or biased data and may not be designed to enable anyone to understand or explain a particular hiring decision.

19

19

Recommendations for Employers

- Examine computerized hiring tools to ensure algorithms in the AI do not unfairly screen out individuals with disabilities;
- Ensure the technology is accessible to individuals with disabilities;
- Provide clear information and procedures to job applicants for requesting a reasonable accommodation and ensure that asking or getting an accommodation does not decrease an applicant’s chances of being hired;
- Screen technology vendors carefully to ensure compliance with the ADA;
- Keep accommodation requests or “chat” dialogues confidential in a confidential file separate from any application or job performance files.

20

20

Illustration 1 – Wal-Mart Automated Scheduling System

- Walmart instituted a new AI-based automated scheduling system resulting in a change in the hours a long-time employee with down syndrome was required to work. She explained to the store that because of her disability she needed to maintain a rigid daily routine and requested an accommodation back to her original schedule.
- The store declined to change her schedule and consequently she began experiencing attendance problems.
- She was disciplined twice for attendance and punctuality issues and eventually terminated. Her family asked Walmart to rehire her but they refused.

See: [EEOC wins \\$125 mln jury verdict in Walmart disability bias case](#)

21

21

Illustration 1 – Wal-Mart Automated Scheduling System II

- The EEOC sued Walmart under Title I and a Federal jury concluded that Walmart failed to accommodate the sales associate's disability and terminated her because of her disability. The jury also found that her later request to be rehired was denied because of her disability;
- Jury awarded \$125 million — for punitive damages. They also awarded \$150,000 in compensatory damages.
- ADA's restricted statutory damages: the total verdict amount will be reduced to \$300,000 when court enters final judgment.

22

22

Sample Vendor Response

- One AI vendor said they will not share the “chatbot” recruitment algorithm they sell--reasoning that the algorithm itself is not that important – but that it’s the data set the chatbot relies on that is important;
- “The chatbot doesn’t see gender, age, or ethnicity... It screens candidates based on a very strict criteria that is unbiased...”
- **Diego Observation:** Reviewing the AI tech means to look at both the data input and how the AI uses the data—it’s not about the data only.

23

23

Court Case Protecting AI from Scrutiny

- [LivePerson, Inc. v. 24/7 Customer, Inc., 83 F. Supp. 3d 501 \(S.D.N.Y. 2015\)](#) - determining plaintiff adequately pleaded possession and misappropriation of a trade secret where plaintiff alleged its “predictive algorithms” and “proprietary behavioral analysis methods” were based on many years of expensive research and were secured by patents, copyrights, trademarks and contractual provisions.
- **Diego** - How long before employer-requested information on data input and interpretation practices of an AI is alleged by the AI vendor to constitute “possession and misappropriation” as a legal threat to prevent scrutiny?

24

24

Employers May not be Liable Alone

- [Neals v. PAR Technology Corp., 419 F. Supp. 3d 1088](#) (N.D. Ill. 2019) - concluding that BIPA does not exempt a third-party non-employer collector of biometric information when an action arises in the employment context, rejecting defendant's argument that a third-party vendor could not be required to comply with BIPA because only the employer has a preexisting relationship with employees.
- Diego: here the AI vendor is liable along with the employer; i.e., employer could seek indemnification in a discrimination lawsuit—even if limited to BIPA privacy violations.

25

25

Recommended Practices 1

- Employers using AI, ML, and other job-screening and performance-measuring software should ensure that applicants and employees are notified of options to request accommodations—including alternative methods to gain equal participation in a given process of hiring or job performance measurement;
- Staff should be trained to recognize and respond to requests for accommodations (which often do not use the word “accommodation; e.g., requests to take a test in an alternative format or to be assessed in an alternative way.

26

26

Recommended Practices 2

- Employers should minimize the chances that tools used disadvantage individuals with disabilities--including looking for software that has been tested by users with disabilities, providing clear instructions for accommodations, and avoiding screening for traits that may reveal disabilities.
- Use AI tools only to measure qualifications that are truly necessary for the job and to measure those qualifications directly--rather than through characteristics or scores on personality assessments.
- The vendor should be able to verify that the tool does not solicit information regarding an applicant's medical conditions or disabilities; e.g., do you experience mood changes?

27

27

Healthy Staff means Fewer Sick Days and Increased Productivity

- BBC report: in 2013, 2,000 firms gave employees fitness trackers and in 2014, that number went up to 10,000.
- Oil and gas company BP has given out over 24,000 fitness trackers to staff and participants are given fitness goals of one, two or three million steps each year.
- And by 2016, the U.S. software firm Autodesk--another firm participating in a health challenge—predicted that most large companies will be giving out fitness trackers.

28

28

Beware of Misleading AI Marketing

- "A habit of regular exercise will help keep you mentally sharper throughout your entire life," [Robert Pozen, a Harvard professor and author of Extreme Productivity wrote in a Huffington Post blog, adding, "People who exercise might have more brain cells than their more sedentary peers -- giving them a major advantage in the workplace."](#)
- Diego- Gee, I wonder if spurious claims like these helps the author promote his book? 😊

29

29

The Privacy and Medical Inquiry Problem

BBC warning re distributed activity tracker: it strips employees of privacy.

Although both BP and Autodesk told BBC that they only have access to aggregated data -- meaning they don't have information on individual activity -- it's still worth noting...

Fitness trackers can track GPS—i.e., locations where people go...

What if a participant has a physical impairment that prevents or restricts participation?

30

30

What is BIPA?

- BIPA stands for “Biometric Information Privacy Act” – BIPA guards against unlawful collection and storing of biometric information.
- This law was first passed in 2008 in Illinois – since then other states did the same—e.g., Washington and Texas.
- Purpose: to create a standard of conduct for private entities to collect or possess “biometric identifiers” and “information” responsibly.

31

31

BIPA Definition of “Biometric Identifiers” and “Information”

- Definition of biometric identifier: retina or iris scan, fingerprint, voice print, hand scan, and face geometry.
- Definition of “biometric information” – data “based on an individual’s biometric identifiers” that is “used to identify an individual.”
- These are VERY broad terms being debated in the courts.

32

32

BIPA Basic Requirements

- BIPA basic requirements are:
- 1. Obtain consent from individuals if the company intends to collect or disclose their personal biometric identifiers
- 2. When the employee leaves or is terminated, the employer must destroy biometric identifiers in a timely manner; and,
- 3. Securely store the biometric information.

33

33

There is No Federal BIPA and State BIPA Penalties

- Important: this is the ONLY US Law that allows for private individuals to file a lawsuit for damages stemming from a violation.
- Penalties per violation are \$1,000.00 and \$5,000.00--the lower amount if the act was unintentional and the higher amount if the violation was intentional or reckless.

34

34

Recommended Practices – BIPA Compliance

- Develop a biometric collection and retention policy to be posted for all employees;
- Develop a verifiable biometric consent approval form— but beware of “passive consent” time clocks where notice should be clear and acknowledged—e.g., during enrollment;
- Verify and document that Biometric data is secure; e.g., create a written schedule for biometric data cleanup based on BIPA retention and deletion requirements.

35

35

How About Case Law Tidbits

- Here we go with some interesting case law dealing with AI and ML issues

36

36

The Fifth Circuit Court of Appeals is Worried

- [Aerotek, Inc. v. Boyd, 598 S.W.3d 373 \(Tex. App. 2020\)](#). The court expressly acknowledged that one day courts may have to determine whether machine learning and artificial intelligence resulted in software altering itself and inserting an arbitration clause after the fact.
- Diego FYI - all “Flex Gig” apps (Uber, Amazon Deliveries, etc) include a “take it or leave it” provision mandating Binding Arbitration for contract and non-contract labor.

37

37

Are You Sure You Were Contacted by a Real Person?

- In re [C.W., 2019-Ohio-5262 \(Oh. Ct. App. 2019\)](#) - noting that “[p]roving that an actual person is behind something like a social-networking account becomes increasingly important in an era when Twitter bots and other artificial intelligence troll the internet pretending to be people...”
- Diego Observation: plaintiffs must assert claims against actual individuals or companies – not inanimate bots; i.e., identify the owner of the bot and company using it.

38

38

Images of Facial and Other Biometric Scans of Individuals are Routinely Collected and Sold

- [Calderon v. Clearview AI, Inc., 2020 U.S. Dist. LEXIS 94926 \(S.D.N.Y. 2020\)](#) - stating the court's intent to consolidate cases against Clearview based on a January 2020 New York Times article alleging defendants scraped over 3 billion facial images from the internet and scanned biometric identifiers and then used those scans to create a searchable database, which defendants then allegedly sold access to the database to law enforcement, government agencies, and private entities without complying with Biometric Information Privacy Act (BIPA).
- Has anyone checked their Facebook or Instagram page lately? FYI You grant automatic permission for them to use and sell your biometric data when you use such social media sites.

39

39

Facial Recognition Might be Actionable per BIPA

- [Patel v. Facebook, Inc., 932 F.3d 1264 \(9th Cir. 2019\)](#). Facebook moved to dismiss plaintiff users' complaint for lack of standing on the ground that the plaintiffs had not alleged any concrete injury as a result of Facebook's facial recognition technology.
- The court concluded that BIPA protects concrete privacy interests, and violations of BIPA's procedures actually harm or pose a material risk of harm to those privacy interests.

40

40

Your Vending Machine Wants Your Fingerprint?

- [Bryant v. Compass Group USA, Inc., 958 F.3d 617 \(7th Cir. 2020\)](#) - Plaintiff vending machine customer filed class action against vending machine owner/operator, alleging violation of BIPA when it required her to provide a fingerprint scan before allowing her to purchase items.
- The district court found defendant's alleged violations were mere procedural violations that cause no concrete harm to plaintiff and, therefore, remanded the action to state court.
- But the Court of Appeals held that a violation of § 15(b) (requiring private entities make certain disclosures and receive informed consent from consumers before obtaining biometric identifiers and information) of BIPA did result in a concrete injury--plaintiff's loss of the power and ability to make informed decisions about collection, storage and use of her biometric information--and she, therefore, had standing and her claim could proceed in federal court.

41

41

The Bot Did It!

- Case Filed - [Williams-Sonoma Inc. v. Amazon.com, Inc. \(N.D. Cal. 3:18-cv-07548\)](#) - Williams-Sonoma asserted a copyright infringement claim against Amazon related to how Amazon sells Williams-Sonoma's products. Amazon argued that Williams-Sonoma did not state a claim for direct copyright infringement because it did not plead that Amazon engaged in "volitional conduct" where the algorithm chooses the disputed images. Williams-Sonoma argued that the Copyright Act covers "anyone" who violates it and the term encompasses artificial intelligence and "software agents."
- Diego – So Amazon says it did not do it, the Bot did it!

42

42

White House Calls for Feedback on AI Bill of Rights

- October 8, 2021 OSTP (advises the President on science and technology) released a Request for Information (RFI) on Public and Private Sector Uses of Biometric Technologies. Comment period ended October 2022.
- The RFI sought information on the use of biometric information for identification or inference of emotion, disposition, character, or intent.
- Input was solicited from stakeholders such as industry and industry association groups; civil society and advocacy groups; state, local, and tribal governments; academic researchers; technical practitioners specializing in AI and biometrics; and the general public.

43

43

White House AI Bill of Rights 2

- The RFI listed concerns regarding AI and biometric tech ranging from questions about the validity of the underlying science; differential effectiveness, outcomes, and harms for different demographic groups; and the role of biometric systems in increasing the use of surveillance technologies and broadening the scope of surveillance practices.”

44

44

Tentative Proposed Bill of AI Rights

- • The right to know when and how AI is influencing a decision that affects civil rights and civil liberties;
- • Freedom from being subjected to AI that has not been carefully audited to ensure that it is accurate, unbiased, and has been trained on sufficiently representative data sets;
- • Freedom from pervasive or discriminatory surveillance and monitoring in your home, community, and workplace; and
- • The right to meaningful recourse if the use of an algorithm results in harm.

45

45

Does Anyone Remember Robby the Robot?

- "[The Brain Center at Whipple's](#)" episode 153 of the TV series The Twilight Zone – aired May 15, 1964 on CBS;
- In the future of 1967, Wallace V. Whipple, owner of a vast Midwestern manufacturing corporation, decides to upgrade his plant to increase output by installing a machine named the "X109B14... totally automatic assembly machine," which leads to tens of thousands of layoffs. Former employees try to convince the owner that the value of a man outweighs the value of a machine to no avail.

46

46



Robby Replaces Man



- The last scene reveals Whipple's replacement to be Robby the Robot, which swings Whipple's factory key on a chain the same way he used to.
- “There are many bromides applicable here: 'too much of a good thing', 'tiger by the tail', 'as you sow so shall you reap'. The point is that, too often, Man becomes clever instead of becoming wise; he becomes inventive and not thoughtful; and sometimes, as in the case of Mr. Whipple, he can create himself right out of existence. As in tonight's tale of oddness and obsolescence, in the Twilight Zone.” – Rod Serling

47

47

[Google Sidelines Engineer Who Claims Its A.I. Is Sentient](#)

- Blake Lemoine, the engineer, says that Google's language model has a soul. The company disagrees.
- No folks, I did not make that up!

48

48

Thank you!
 Questions?
 Contact Your Regional ADA Center

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49



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50

50



Next Session:

Wednesday, September 21, 2022

**The Supreme Court's Olmstead Decision and
Its Far-Reaching Impact on People with
Disabilities**

Registration available at: www.ada-legal.org

51