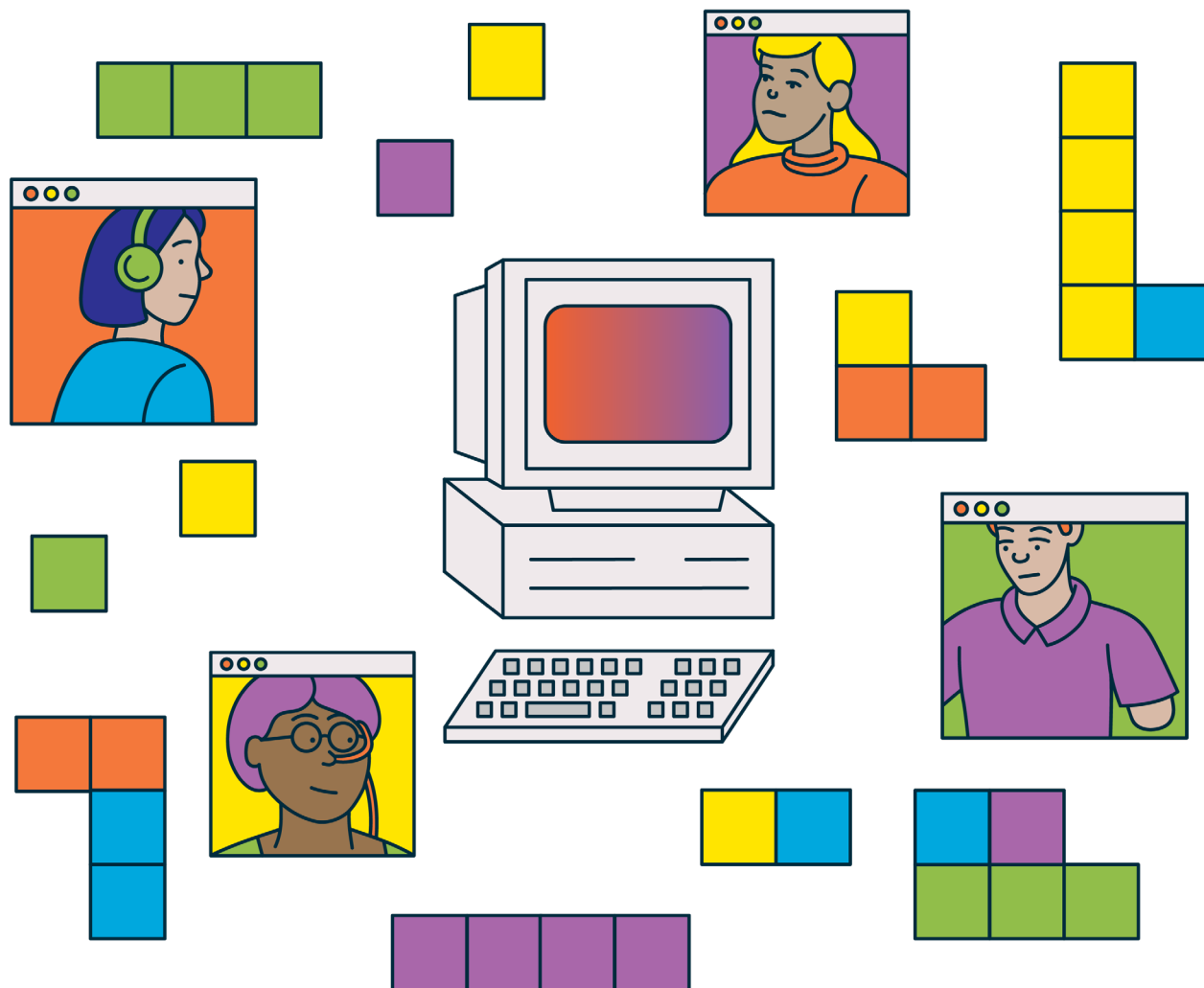# Building A Disability-Inclusive AI Ecosystem

A Cross-Disability, Cross-Systems Analysis Of Best Practices

Ariana Aboulafia, *CDT*
Henry Claypool, *AAPD*

CENTER FOR DEMOCRACY & TECHNOLOGY

AAPD
American Association of People with Disabilities

The **Center for Democracy & Technology (CDT)** is the leading nonpartisan, nonprofit organization fighting to advance civil rights and civil liberties in the digital age. We shape technology policy, governance, and design with a focus on equity and democratic values. Established in 1994, CDT has been a trusted advocate for digital rights since the earliest days of the internet. The organization is headquartered in Washington, D.C. and has a Europe Office in Brussels, Belgium.

The **American Association of People with Disabilities (AAPD)** is a convener, connector, and catalyst for change, increasing the political and economic power of people with disabilities.

As a national cross-disability rights organization, AAPD advocates for full civil rights for the over 60 million Americans with disabilities by promoting equal opportunity, economic power, independent living, and political participation.

Building A Disability-Inclusive AI Ecosystem

A Cross-Disability, Cross-Systems Analysis Of Best Practices

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

References in this report include original links as well as links archived and shortened by the Perma.cc service. The Perma.cc links also contain information on the date of retrieval and archive.
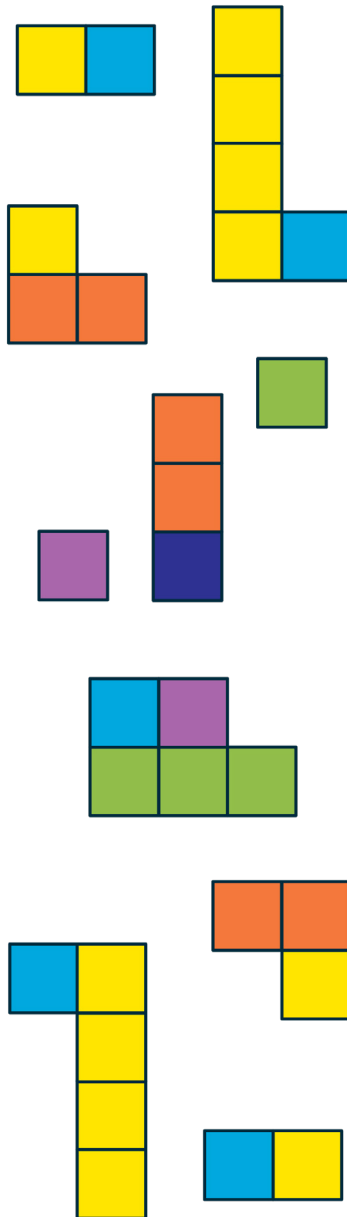
CENTER FOR DEMOCRACY & TECHNOLOGY

Contents

01 Introduction

In 2021, the Center for Democracy & Technology (CDT) and the American Association of People with Disabilities (AAPD) released a report entitled "Centering Disability in Technology Policy: Issue Landscape and Potential Opportunities for Action."[1] This represented a significant milestone in a partnership between AAPD and CDT to ensure that people with disabilities are properly represented in the field of technology policy. The report provided technology policy advocates with an overview of tech issues that disproportionately impact people with disabilities, as well as recommendations for how those individuals can include disability perspectives in their advocacy.

Since this release, CDT and AAPD have expanded their partnership and have worked together to bring awareness and provide policy solutions that benefit people with disabilities in their interactions with technology, particularly AI and algorithmic systems. This report (released in tandem with a shorter brief)[2] furthers this important

---

1   *See generally*, Henry Claypool et. al., Centering Disability in Technology Policy: Issue Landscape and Potential Opportunities for Action (Dec. 2021), https://cdt.org/wp-content/uploads/2021/12/centering-disability-120821-1326-final.pdf [https://perma.cc/A79G-CJBX].

2   This report focuses on recommendations for disability community members, federal agencies, and private-sector AI practitioners. The shorter brief released alongside this report provides recommendations for policymakers and public administrators regarding internal, government use of AI: https://cdt.org/insights/recommendations-for-policymakers-and-public-administrators-to-advance-responsible-ai-governance-practices-and-disability-rights/. Both reports aim to build a more inclusive AI ecosystem for people with disabilities.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

work by specifically providing recommendations for disabled community members, disability rights and justice advocates, government agencies, and private-sector AI practitioners regarding best practices for ensuring that people with disabilities are able to enjoy the benefits of AI and algorithmic technologies while being safeguarded from their risks.

It does this by presenting major areas of concern for people with disabilities[3] when they interact with technologies in the context of several major systems: employment, education, government benefits, information and communications technology (ICT), healthcare, transportation, and the criminal legal system. Some of these systems (including employment, education, law enforcement, and healthcare) were briefly covered in the "Centering Disability" report, and this expands on that work; some areas are entirely new. These are, of course, not the only important areas wherein people with disabilities are affected by technologies. However, providing recommendations for inclusion for people with disabilities in these high-stakes areas can hopefully serve as a useful resource, building on AAPD and CDT's earlier work in this area. .

In the midst of a significant expansion of anti-DEIA measures[4] and a significant decrease in the regulatory ambition of the federal government,[5] it may seem a strange time for CDT and AAPD to engage in this work, and particularly to focus on federal agency recommendations. However, it remains as important now as it was in 2021 to ensure that people with disabilities are properly considered in the development of AI technologies and regulations.

---

3   Note that this document will use the terms "people with disabilities" and "disabled people" interchangeably. This is out of recognition of the varied preferences of the members of the disability community, some of whom prefer "person first" and some of whom prefer "identity first" language.

4   ReNika Moore, *Trump's Executive Orders Rolling Back DEI and Accessibility Efforts, Explained*, American Civil Liberties Union (Jan. 24, 2025) https://www.aclu.org/news/racial-justice/trumps-executive-orders-rolling-back-dei-and-accessibility-efforts-explained [https://perma.cc/R3SM-5U76].

5   *See, e.g.*, Jennifer Szalai, *Trump vs. the Bureaucrats*, New York Times (Jan. 11, 2025) https://www.nytimes.com/2025/01/11/books/review/administrative-state-trump-bannon.html [https://perma.cc/9BUR-28DB].

Further, at least some of the recommendations geared towards federal agencies may be applicable to state and local agencies as well. Further, even if agencies do not act on these recommendations in the short term, they will likely remain useful touchpoints for any future attempts to create a disability-inclusive AI ecosystem.

Disabled people are at a specific risk of discrimination when interacting with AI and algorithmic systems, for several reasons. First, many AI and algorithmic tools are trained on pattern recognition, and make determinations based upon typical patterns within any particular dataset. However, many disabled people (by virtue of their disability) exist outside of typical patterns — they may have gait differences, vocal differences, atypical eye movements, etc.[6] These tools may inadvertently discriminate against people with these sorts of disabilities, particularly when they rely on biometric inputs.

Second, AI and algorithmic technologies create outputs based on inputs, which are again derived from datasets (sometimes referred to as "training data"). Oftentimes, these datasets are not properly inclusive of people with disabilities — they may have inaccurate data about disability, undersample or improperly tag information as being related to disability.[7] These can all lead to AI tools that can discriminate against disabled people, and potentially contribute to negative outcomes.

And third, many people with disabilities are multiply-marginalized, meaning that they are both disabled and identify as members of another marginalized group (like a disabled person of color, or a disabled LGBTQ+ person). Many AI and algorithmic tools have been shown to pose unique risks to other marginalized groups as

6   Gus Alexiou, *ChatGPT is Biased Against Resumes Mentioning Disability, Research Shows*, Forbes, June 24, 2024 https://www.forbes.com/sites/gusalexiou/2024/06/24/chatgpt-is-biased-against-resumes-mentioning-disability-research-shows/ [https://perma.cc/RRV8-EDWY]

7   Ariana Aboulafia, Miranda Bogen & Bonnelin Swenor, *To Reduce Disability Bias in Technology, Start with Disability Data*, Center for Democracy & Technology, https://cdt.org/wp-content/uploads/2024/07/2024-07-23-Data-Disability-report-final.pdf. [https://perma.cc/J8LC-MJP9]

well, meaning that multiply-marginalized disabled people are at a particular risk of facing discriminatory outcomes as a result of their interactions with these tools. For these reasons and more, this partnership is an important step towards mitigating the potential harms of technology-facilitated disability discrimination, while bolstering innovation that allows for the development of helpful tech tools for people with disabilities to flourish.

People with disabilities can benefit from AI, algorithmic tools, and other technologies. But these tools can also serve as vectors of discrimination, and concerns over accessibility, bias, and privacy abound, particularly when biometric data is involved. Ensuring that people with disabilities are centered in the creation, deployment, and auditing of these technologies and of the policies that govern them can help ensure that the promise of these tools can eventually be realized for all.

02 Employment
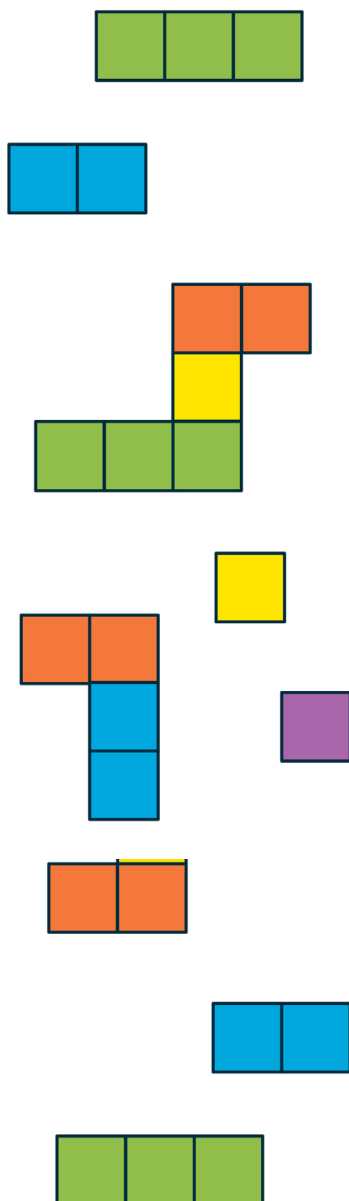
Employment rates for people with disabilities have significantly improved in recent years, reaching a record high in 2023, according to the Center for American Progress, likely as a result of the continued availability of flexible and accessible working options like remote work.[8] Nonetheless, working-age people with disabilities are still employed at rates that are about half those of people their age without disabilities.[9] Technology, including hiring and on-the-job tools that incorporate AI or algorithmic systems, can both be helpful and harmful to workers[10] with disabilities. Regarding the former, certain AI-integrated technologies can help disabled workers, and even be part of their workplace accommodations. For example, in response to a notice for public comment on disability and AI released by the United States Access Board in August 2024, community member Julia Edinger wrote that she considers voice-to-text translation tools to be a particularly helpful on-the-job tool for accessibility purposes.[11] There are also other AI tools (including captioning)

---

8   *Disabled Workers Saw Record Employment Gains in 2023, But Gaps Remain*, Center for American Progress, https://www.americanprogress.org/article/disabled-workers-saw-record-employment-gains-in-2023-but-gaps-remain/ (Feb. 22, 2024). [https://perma.cc/RXX9-NYE7].

9   *Id.*

10   For purposes of this section, the term "worker" includes both "people who are either working or actively looking for work." This is based on the Census definition of the term. See Labor Force Statistics from the Current Population, U.S. Bureau of Labor Statistics at https://www.bls.gov/cps/definitions.htm#laborforce [https://perma.cc/WC66-KD7N].

11   *See Comment from Julia Edinger* at https://perma.cc/PL3M-NFJ2.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

that some disabled workers find helpful to use in an employment context. However, AI and algorithmic tools also can discriminate against people with disabilities, both during the hiring process and on the job, to the detriment of disabled workers themselves but also to employers who may miss opportunities to fill vacant positions. It is vital to find ways to mitigate this type of bias, both to continue the relative gains in disabled employment and to ensure AI tools meet business needs.

Employers use several types of hiring tools that can lead to discriminatory outcomes for people with disabilities. For example, resume sorting tools that run resumes through algorithms in order to determine which should advance to the next steps of an interview process may screen out resumes that have gaps in employment history, without considering that these gaps may be due to a disability. Recent research from the University of Washington has even found that some AI tools down-rank resumes with disability-related credentials, including scholarships and awards.[12] There are also gamified assessments — tools that look like computer or video games — that purport to measure traits that may be, at best, tenuously related to the job at hand.[13] These tools may claim to measure personality traits like patience or risk appetite, or physical attributes like reaction time — either way, these may pose accessibility concerns and raise questions as to true job-relatedness, as well as discriminate against people with certain disabilities.[14] Relatedly, some organizations use personality tests as part of their hiring processes, which can also lead to discriminatory outcomes for people with certain disabilities, including mental health disabilities.[15] Many of these technologies contribute to situations that may be violative of the Americans with Disabilities Act (ADA), which prohibits discrimination against people with disabilities.[16]

---

12   *See* Gus Alexiou, *supra* at footnote 6.

13   *Algorithm-Driven Hiring Tools: Innovative Recruitment or Expedited Disability Discrimination?*, Center for Democracy & Technology (Dec. 2020) https://perma.cc/R35S-65K4.

14   *Id.*

15   *Id.*

16   *See generally*, Americans with Disabilities Act, 42 U.S.C. §12101.

Finally, many organizations use some sort of facial or vocal recognition or other biometric tools during their hiring process. These tools often work by running recorded video interviews through algorithmic tools that measure, for example, candidates' facial movements, eye movements, or vocal cadence.[17] These tools pose a risk of discrimination to a wide variety of disabled people. For example, such tools may misinterpret the eye movements of people who are blind or low-vision, or incorrectly analyze the vocal cadence of a neurodivergent person or the facial movements of a worker with Tourette's Syndrome. There is currently no regulation that per se requires companies to disclose to workers when these tools are being used, which makes it difficult to know exactly how common they are. However, some research suggests that at least one-third of businesses use some form of AI in hiring and on-the-job processes.[18]

Indeed, even once an employee gets past the hiring process, there are several AI and algorithmic tools that are used in employment contexts that could pose risks for people with disabilities. One category of these tools is referred to as "bossware" — that is, technologies that "allow both continuous surveillance of workers' activities and automation of the task of supervising them."[19] This can take the form of, for example, keystroke monitors, software that periodically takes screenshots of employee computers, or cameras or microphones that monitor employee movements.[20] Bossware technologies like these are often integrated into workplaces to monitor employees' productivity and ensure a faster pace of work.[21] It can pose disability concerns for two reasons, generally. First, this may discriminate against disabled employees, sometimes in ways that are, again, potentially violative of the Americans with Disabilities Act and other federal statutes. For example, if a person

---

17   *See* Algorithm-Driven Hiring Tools, *supra* at footnote 13.

18   *Id.*

19   Matt Scherer, *Warning: Bossware May Be Hazardous to Your Health*, Center for Democracy & Technology, https://perma.cc/H4UU-4BHF.

20   *Id.*

21   *Id.*

has a disability that requires them to take additional bathroom breaks, or breaks for food or medication, they may be improperly flagged by this software despite their breaks being protected by law. Secondarily, as previous research from the Center for Democracy & Technology has shown, this software can instill a pace of work that is so fast that it actually causes or contributes to workplace injury and mental strain, which can lead to, contribute to, or exacerbate existing disability.[22]

In addition to bossware and other surveillance tools, AI is also being integrated into other aspects of employment, including in automating tools for human resources (HR) processes like performance reviews, and in automating or partially automating the accommodations process for workers with disabilities.[23] Here, too, there can be discriminatory impacts on disabled employees; for example, if the processes are not sufficiently individualized, as required by federal statutes. It is clear that, despite their potential accessibility benefits, AI and algorithmic tools can pose real concerns for disabled workers, potentially even threatening the advances that have been made towards employment equity over the last several years. However, mitigating the worst of these concerns is possible.

Recommendations

For the disabled community, we recommend that to the extent possible, people with disabilities **familiarize themselves with their employment rights**, including but not limited to their rights to **individualized accommodation processes and accessible hiring processes**. Furthermore, disability rights and justice organizations should **continue to raise awareness** within communities of employment rights, and the **impact that AI and algorithmic tools can have on disabled job seekers and employees.**

---

22   *Id.*

23   *See PEAT AI Hiring Framework*, available at https://perma.cc/LLT5-BH8G.

For the private sector, we recommend that **employers take proactive measures to mitigate discrimination against disabled workers by**:

· **Identifying and anticipating discriminatory barriers** throughout a selection procedure's lifecycle.

· **Giving workers and job candidates specific notice** of the types of AI, algorithmic decision, and electronic monitoring systems that they will use so that workers and candidates have the opportunity to raise accessibility concerns or request reasonable accommodation.

· **Exploring alternate selection procedures and accommodations** that may lessen discriminatory impacts, especially against people with disabilities.

· **Choosing the least discriminatory method** for measuring employees' essential job functions.

· **Engaging in pre-and-post deployment audits of any automated tools** used on the job or throughout the hiring process.

There are at least two agencies that are involved in the regulation of employment and enforcement of federal employment statutes in ways that impact people with disabilities, **Department of Labor (DOL)** and the **Equal Employment Opportunity Commission (EEOC)**, respectively. For these agencies, we recommend the following courses of action:

· The EEOC should **issue new guidance that reminds employers that AI-integrated employment tools (like resume screeners and computer-based tests) may violate the rights of disabled workers under the Americans with Disabilities Act**.

  » Companies are **required to provide reasonable accommodations for people with disabilities under the Americans with Disabilities Act — this can include during their interactions with AI and algorithmic tools**. As technologies continue to evolve, it is vital that agencies keep this guidance up-to-date.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

- Agencies should **issue guidance for employers that includes the following**:[24]

  » Employers who wish to use automated employment decision-making tools **must demonstrate that the tool is a valid method of illustrating that the employee is able to complete the essential job functions** (job-relatedness).

  » Employers must **disclose to workers that tools are being used**, to give them the opportunity to request reasonable accommodations.

  » Employees with disabilities have the **right to opt out of automated employment decision tools** if they are inaccessible and unable to be made accessible via accommodations, **and alternative procedures for hiring that are accessible must be made available**.

---

24 Many of these recommendations are taken from the Civil Rights Standards for 21st Century Employment Procedures, published by the Center for Democracy & Technology and endorsed by many civil rights and liberties organizations, including disability rights groups. *See, Civil Rights Standards for 21st Century Employment Procedures* at https://perma.cc/7TWK-9WPA.
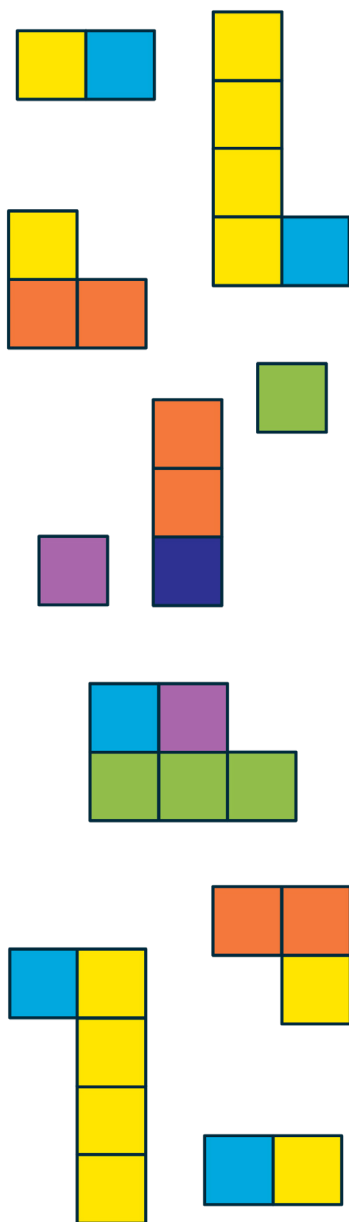
03 Education

The integration of technology into schools can both be helpful for advancing accessibility and tailoring educational services, as well as pose risks related to accessibility, privacy and discrimination for youth with disabilities. The civil rights of students with disabilities, including how educational technology (edtech) is used in K-12 schools, are protected by several federal statutes — including the aforementioned Americans with Disabilities Act ("the ADA"), as well as Section 504 of the Rehabilitation Act of 1973 ("Section 504"),[25] and the Individuals with Disabilities Education Act ("IDEA").[26] There also may be state or local level statutes that protect students with disabilities when edtech is used in the educational context.

Students with disabilities may face accessibility concerns in schools, including when interacting with technologies. For example, in a public comment to the Access Board, community member Megan Pouncy noted that many accessibility concerns in education remain unaddressed, and that many educational materials should be provided in accessible formats.[27] AI and algorithmic tools can also be helpful in the educational context for disabled youth; for example, during a virtual Access Board hearing on disability rights and AI, Theo Braddy, the Executive Director of the National Council on Independent Living, mentioned that AI tools are being used

25   *See generally*, Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. §794.

26   *See generally*, Individuals with Disabilities Education Act, 20 U.S.C §1400.

27   *See Comment from Megan Pouncy* at https://perma.cc/3JUV-TKJZ.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

to provide personalized learning experiences for disabled youth, as well as accessibility features.[28] However, even outside of the context of accessibility, students with disabilities may face the risk of discrimination and privacy concerns when they interact with AI and algorithmic tools — some of which could even rise to the level of violating federal statutes like the ADA, Section 504, or IDEA.

For example, ubiquitous surveillance technologies that are used in schools, including student activity monitoring software, can disproportionately impact disabled students. This type of software, which 88 percent of teachers report their school uses,[29] is typically installed on school-issued devices (like laptops or tablets) or is activated on a student's personal device when they are logged into a school account, and uses artificial intelligence to comb through chats, search history, and other online activities to "flag" and send alerts for certain terms, often with the stated goal of enhancing student safety.[30] These technologies intend to protect students from harm, but can wind up causing harm instead; and, some of those harms are disproportionately experienced by disabled students, for a few reasons.

First, students with disabilities are more likely to come from low-income families,[31] and therefore may not have personal devices, thereby increasing the amount of searches and activity reviewed by student activity monitoring software and related flagging as they cannot afford the luxury of privacy. Second, terms related to mental health disabilities, like depression or suicidality, can cause students with disabilities to be flagged more often than their non-disabled peers, even if the student is not in crisis.[32] These

---

28   *See Disability Community Hearing on Artificial Intelligence (PM Hearing)*, U.S. Access Board (Aug. 8, 2024) at https://perma.cc/J7MV-34SK.

29   *See* Elizabeth Laird & Maddy Dwyer, *Off Task: EdTech Threats to Student Privacy and Equity in the Age of AI*, Center for Democracy & Technology (Sept. 20, 2023) https://perma.cc/3LQ9-R8M3.

30   *See* Kristin Woelfel, Ariana Aboulafia et. al., *Late Applications: Protecting Students' Civil Rights in the Digital Age*, Center for Democracy & Technology (Sept. 2023) https://perma.cc/C9PZ-BFT2.

31   *See* Thomas R. Wolanin, *Students with Disabilities: Financial Aid Policy Issues*, https://perma.cc/43VE-5AMU.

32   *See* Kristin Woelfel, Ariana Aboulafia et. al., *supra* at footnote 30.

two examples could contribute to students with disabilities being disproportionately disciplined: Forty-four percent of licensed special education teachers report that they know of a student who got in trouble for how the student responded to the alert, compared to 32 percent of teachers who are not licensed in special education.[33] This can lead to students being removed from the classroom and contribute to the school to prison pipeline as well.[34]

Unfortunately, student activity monitoring software is not the only type of edtech that can lead to disproportionate levels of discipline for disabled students. For example, research has found that disabled students are more likely to use generative AI (which could potentially aid in disabled students' learning) and to be disciplined for its use, with licensed special education teachers reporting higher rates of discipline than their peers for using generative AI in ways that the school does not permit.[35]

Similarly, schools use predictive analytics in attempts to anticipate students who are at risk of severe negative outcomes. These risks can include identifying students who could perpetrate a crime or an act of school violence. In fact, 55 percent of licensed special education teachers report that their school does this compared to 21 percent of teachers who are not licensed in special education, suggesting students with disabilities could be subjected to this analysis and over-identification more than their peers. This concern is not just hypothetical — in March of 2024, the Department of Justice reached a settlement agreement with Pasco County, Florida Schools over allegations that the school district's use of threat assessments led to law enforcement referrals and other practices that were discriminatory against disabled students, in violation of the IDEA.[36]

---

33   *See* Elizabeth Laird & Maddy Dwyer, *supra* at footnote 29.

34   Jan McSorley, *School to Prison Pipeline is Still Very Real – And Impacts Hundreds of Thousands of Disabled Students*, Knowbility.org (August 29, 2023) https://perma.cc/SH87-JRC3.

35   *See* Elizabeth Laird & Maddy Dwyer, *supra* at footnote 29.

36   Jordan Bowen, *Pasco County Schools, DOJ Reach Agreement Over Alleged Discrimination Against Students with Disabilities*, (March 5, 2024) https://perma.cc/98M9-NUPQ.

Schools also use predictive analytics to identify students who are at risk of poor academic outcomes. Fifty-eight percent of teachers report that their school uses student data to predict whether individual students are at risk of dropping out or are adequately prepared for college.[37] For example, Wisconsin's system for identifying students who are at risk of dropping out of high school uses disability as a factor, despite the fact that disabled students obviously cannot control their disability status. Both of these examples serve to encode overt and implicit bias against disabled students, and could violate civil rights laws by using a protected class (disability) as an explicit criteria to disproportionately target disabled students, even if school administrators' intentions are to help them.[38]

Remote proctoring software, which 36 percent of teachers report their school uses in some form, has also had discriminatory impacts on disabled youth.[39] There are reports, for example, of disabled youth being removed from exam sessions for "atypical eye movements," which can disrupt the educational experience and potentially be considered a violation of federal statutes, including the ADA and Section 504.[40] Furthermore, while the use of generative AI to create individualized education programs (IEPs) can be posed as an efficiency and speed benefit for licensed special education teachers, it can also pose ethical, practical, and privacy-related concerns for students,[41] in ways that could potentially be violative of the ADA, Section 504, the IDEA, or even federal privacy statutes for students (like the Family Educational Rights and Privacy Act, or FERPA).[42]

---

37   *See* Elizabeth Laird & Maddy Dwyer, *supra* at footnote 29.

38   Todd Feathers, *How Wisconsin Uses Race and Income to Label Students 'High Risk',* The Markup (April 27, 2023) https://perma.cc/SKZ9-DWRS.

39   *See* Elizabeth Laird & Maddy Dwyer, *supra* at footnote 29.

40   *See* Kristin Woelfel, Ariana Aboulafia et. al., *supra* at footnote 30.

41   *See* Stephanie DeLussey, *The Pros and Cons of Using AI to Help with IEP Writing,* (Oct. 22, 2024) https://perma.cc/B72C-LAKY.

42   Regarding FERPA specifically, the statute prevents anyone associated with a K-12 school from sharing personally identifiable information about students unless they meet a limited exception. Following this, a teacher providing sensitive information to a generative AI tool that lacks sufficient privacy and security protections could violate these existing legal protections. For more information about FERPA, *see* https://perma.cc/RN7H-N2NG.

Because there are a plethora of technologies that impact youth with disabilities in educational environments, it is important to engage in inclusive practices that allow for students to enjoy the potential benefits of technological tools while being protected from their risks.

Recommendations

For the disabled community, we recommend that disabled people, and parents of disabled youth, **be aware of the presence of the various AI-integrated educational tools** mentioned in this report and **the impacts that they can have on a student's civil rights**. The disability community, including parents of disabled youth, should also strongly consider **actively engaging with school administrators** about the use of these tools and their impacts on disabled students.

For the private sector, we recommend that **developers of education technologies should consider the accessibility of tools**, and **follow principles of inclusive design when creating tools**. Furthermore, we recommend that developers of education technologies **stop using a student's disability status to predict social outcomes** and that they **test their tools for disability-related bias and discrimination** prior to releasing their products to schools.

The **U.S. Department of Education (ED)** has played an important role in both providing guidance and best practices to educational institutions as well as enforcing existing civil rights protections. Even if the Department of Education were to be significantly weakened, state and local agencies would likely take on a broader role in implementation of education policy. Many of these recommendations can be useful to those agencies, as well. Following this, we recommend:

- It would be helpful for ED to **collect information on the use of AI-driven tools that can impact students with disabilities**, including the use of student activity monitoring, early warning systems, and the other systems referenced in this section.

- The Department can also encourage federally-funded schools using these types of technologies to **conduct pre- and post-deployment audits,** in a way that explicitly includes disability.

- The Department should also consider **conducting analysis and publicly reporting information on technology use in schools and its impact on disabled youth**.

Finally, many of the decisions described above are made by state and local administrators. To achieve accessibility benefits while mitigating privacy and discrimination, **education administrators** should **interrogate whether an AI-driven tool could potentially harm disabled students.** At a minimum, this includes **understanding whether a tool explicitly uses criteria** that would disproportionately target disabled students, **conducting pre-deployment audits prior to adoption,** and **monitoring the ways that those tools may discriminate against students with disabilities** (paying special attention to disparate disciplinary outcomes) on an ongoing basis.

04 Benefits Determinations
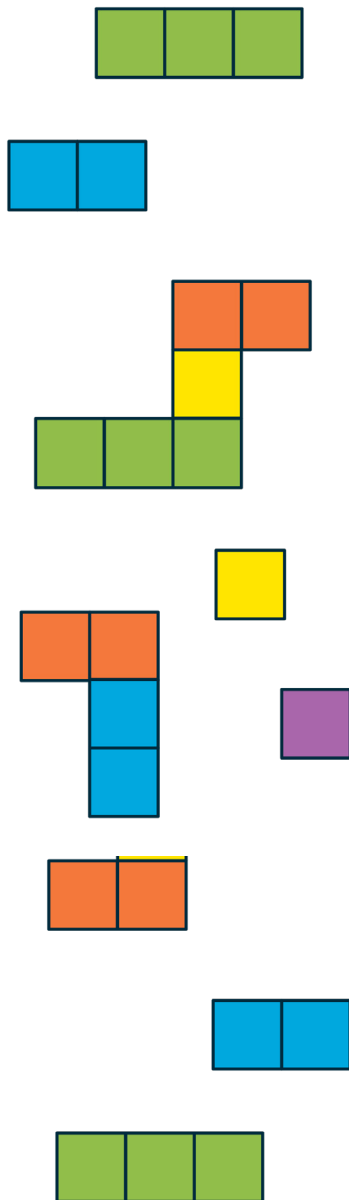
Many disabled people rely on the timely and accurate administration of public benefits in order to live independent and fully community-integrated lives. Public benefits that impact people with disabilities can include programs that specifically aim to help disabled people (like Medicaid and Social Security) as well as those that are more broadly available, but may be disproportionately utilized by people with disabilities, like the Supplemental Nutrition Assistance Program (SNAP)[43] and Temporary Assistance for Needy Families (TANF). Public benefits programs can be administered at the federal, state, or local levels, and AI and algorithmic tools have been integrated into the public benefits system at all of these levels, at least in some jurisdictions.

There are at least three functional categories of algorithmic tools being used in benefits contexts, delineated by what the tools do or allege to do. First, some jurisdictions have incorporated AI into their customer service chatbots.[44] Second, some jurisdictions use AI for fraud detection in their benefits determinations systems. (This has occurred, for example, in Michigan, which incorporated an AI system called MiDAS into its unemployment benefits determinations system to minimize fraud. Unfortunately, his system

---

43 SNAP has some specific programs for people with disabilities, like the Restaurant Meals Program. *See, e.g.*, https://perma.cc/UG7H-8JKG.

44 Jake Offenhartz, *NYC's AI Chatbot Was Caught Telling Businesses to Break the Law. The City Isn't Taking It Down*, The Associated Press (April 3, 2024) https://apnews.com/article/new-york-city-chatbot-misinformation-6ebc71db5b770b9969c906a7ee4fae21 [https://perma.cc/G33F-MATK].

did not work properly, and resulted in tens of thousands of false fraud cases over several years.)[45] And third, there are several jurisdictions that have incorporated algorithmic systems to assess the eligibility and size of benefits awards; the remainder of this section will refer to this use case as "benefits determinations algorithms."

According to TechTonic Justice,[46] an organization that focuses on supporting legal aid attorneys and their clients in combating AI-related harms that impact low-income people, 73 million low-income people are exposed to AI-related decision-making in Medicaid through the eligibility and enrollment process, the determination of home- and community-based services, or the prior authorization process for medically necessary services.[47] When these AI or algorithmic tools do not work properly, there can be severe consequences — including missing out on vital medical services that can lead to negative health outcomes, or to

---

45   *See Incident 373: Michigan's Unemployment Benefits Algorithm MiDAS Issued False Fraud Claims to Thousands of People, AI Incident Database* at https://perma.cc/P89X-EHWS.

46   Kevin De Liban, *Inescapable AI: The Ways AI Decides How Low-Income People Work, Live, Learn and Survive*, TechTonic Justice (Nov. 2024) https://perma.cc/3YNG-NH7U.

47   It is worth noting that determination of home and community based services and prior authorization for medical benefits are vastly different use cases. As mentioned *infra*, this document focuses on the use of AI in benefits determinations mechanisms. However, the use of AI in prior authorization impacts many people both with and without disabilities, as well. Medicare Advantage plans are increasingly using algorithmic decision-making to identify plan members trying to access certain benefits to pursue prior authorization before accessing needed care. Oftentimes these plan members consist of people with disabilities, whose utilization of certain benefits may exceed the average plan members usage and whose requests for prior authorization may be denied due to algorithmic decision making. *See generally*, Kaye Pestaina et. al., *Final Prior Authorization Rules Look to Streamline the Process, But Issues Remain*, KFF (May 2, 2024) https://perma.cc/5GMH-WSBR.

institutionalization[48] — for the disabled people who rely on these services. For example, there have been instances of people with disabilities having their in-home care hours, funded by Medicaid, drastically reduced or even removed outright as a result of faulty algorithms.[49] When this occurred in Arkansas after the state incorporated an algorithmic tool into its benefits determinations scheme, legal aid attorneys and advocates filed suit alleging that the use of the algorithm was unlawful — and won.[50]

Most of the litigation has occurred in the state context, but certain federal agencies are already using AI for their benefits programs, as well as considering additional and new uses of AI in this context. Agencies argue that these tools improve customer service, mitigate fraud and waste, reduce administrative burden, and increase efficiency. But many of these alleged benefits are largely unsubstantiated, and it has been repeatedly shown that these algorithms detrimentally impact disabled beneficiaries.

Recommendations

For the disabled community, we recommend that **disability rights and justice advocates focus some of their advocacy on supporting low-income disabled people** who may be affected by benefits algorithms. This could include seeking out **partnerships and collaborations with low-income communities**

---

48   Under *Olmstead v. L.C.*, unjustified segregation of disabled people into institutions is unlawful as a violation of the Americans with Disabilities Act. *See Olmstead v. L.C.*, 527 U.S. 581 (1999). If improper use of algorithms in benefits determination systems deprives otherwise qualified beneficiaries from the home and community based services that keep them in their homes, and they must be institutionalized as a result, it is possible that attorneys could argue that the algorithms contribute to unlawful *Olmstead* violations.

49   Lydia X.Z. Brown et. al., *Challenging the Use of Algorithm-Driven Decision-Making In Benefits Determinations Affecting People with Disabilities*, Center for Democracy & Technology (Oct. 2020), https://perma.cc/8CR8-FJDA.

50   Erin McCormick, *What Happened When A 'Wildly Irrational' Algorithm Made Crucial Healthcare Decisions*, The Guardian (July 2, 2021) https://perma.cc/E8SK-EE5M.

and organizations that focus on anti-poverty work. Furthermore, **if people with disabilities experience a reduction in their benefits, they should keep records to the best of their ability**, and can consider **contacting an attorney** in their area to inquire as to whether this reduction is related to the integration of any algorithmic system.

For legal aid attorneys, who often interact with beneficiaries, we recommend that they **educate themselves on the presence of algorithmic systems in their state's benefits determinations practices**. The **Benefits Tech Advocacy Hub** and **TechTonic Justice** may be an excellent starting point for that educational process.[51] Furthermore, attorneys who have educated themselves on these tools should **train fellow practitioners** as to the best ways to issue spot and litigate these cases. In the context of litigating cases challenging the process of determining eligibility for Medicaid home and community based services, this training should include instructing attorneys to consider **litigation strategies outside of substantive ADA claims**, and towards claims including procedural and due process concerns. Attorneys should take a **client-centered approach** when litigating these cases, with the understanding that the reduction of benefits can be a deeply impactful experience for disabled people.

There are several federal agencies that administer public benefits in ways that may impact people with disabilities, including the **Social Security Administration (SSA)**, the **Department of Health and Human Services (HHS)**, and the **Department of Veterans Affairs (VA)**. A majority of social safety net programs are administered at the state and local levels; however, many state and local governments have yet to implement risk management requirements when AI tools are used to deliver such services. This is despite the fact that these agencies can impact millions of disabled people, including through their **administration of Medicaid services**. Following this, we recommend that all relevant agencies:

---

51   *See generally*, the Benefits Tech Advocacy Hub at https://perma.cc/6Y4Q-Z3UT; *also see* TechTonic Justice at https://perma.cc/5R4R-WVWY.

- Conduct and publish annual **inventories of AI use cases**, including those related to benefits determination.

- Ensure uses of AI **remain human-centered and have necessary oversight**.

  » This includes allocating sufficient resources and personnel, enabling effective human oversight practices, and ensuring that human means of making benefits determinations remain intact even while the agency explores additional integration of AI or algorithmic tools.

- Prior to integrating AI into additional elements of public benefits implementation, **conduct intensive stakeholder engagement with disabled people**. Stakeholder engagement can encompass public listening sessions, requests for information, educational webinars, and more.

- Put in place **robust pre-deployment auditing and testing** of additional algorithmic systems to identify and address any potential risks, **including documentation** of those results. Furthermore, the public should be made aware of the results of this testing.

- Deploy of algorithmic systems **in phased pilots prior to system-wide rollout, with mandatory impact assessments on affected populations after each phase**.

- **Integrate responsible AI practices into procurement processes** for algorithmic systems, including pre-award evaluations, post-award vendor monitoring, and public transparency and oversight.[52]

- **Identify all uses of AI in the benefits determination process as high-risk** and therefore subjected to any **higher requirements mandated at the state or local levels**.

---

52 *See* Hannah Quay-de la Vallee et. al., *The Federal Government's Power of the Purse: Enacting Procurement Policies and Practices to Support Responsible AI Use*, Center for Democracy & Technology (April 29, 2024) https://perma.cc/V8G4-48EU.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

- **Ensure that beneficiaries are notified when AI is used in making benefits determinations**, and provide beneficiaries with **information on the redress process** if they have concerns about decisions or outcomes.

Additionally, **SSA should retain federal oversight** once AI systems are deployed into state disability determination programs.

05 Information And Communication Technology (ICT)
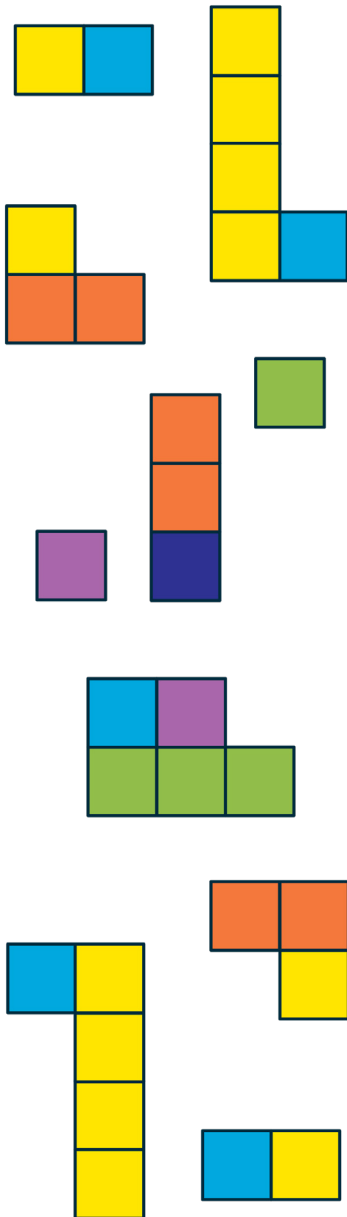
According to the National Institute of Standards and Technology (NIST), the term "information and communication technology" (ICT) "includes all categories of ubiquitous technology used for the gathering, storing, transmitting, retrieving, or processing of information."[53] Generally, it is an umbrella term that can encompass hardware (like smartphones) and software (like video conferencing applications), as well as telecommunications networks and more. It is vital that people with disabilities are able to access ICT tools, including those that integrate AI or algorithmic technologies. ICT is a very broad category; for purposes of providing best practices for disabled users, as well as developers and agencies, this document will focus on assistive technologies, particularly those that integrate AI in some way.

Many people with disabilities rely on assistive technologies to make their lives easier and their environments more accessible. These technologies can take many forms, including apps, software, and hardware created specifically for people with disabilities. AI is often integrated into these tools in service of providing optimal features and experiences for users. In its response to the U.S. Access Board's invitation for public comment on disability and AI, the Administration for Community Living (ACL) wrote, for example, that some of its grantees have integrated artificial intelligence to develop enhanced communication technologies for people who are D/deaf

---

53   Information and Communications Technology, NIST https://perma.cc/D753-N5E8.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

or hard of hearing as well as assistive technologies for children and adults with developmental disabilities who are learning language and literacy.[54] Similarly, in its public comment, the Perkins School for the Blind noted that AI can help to enhance communication for individuals who are blind, low vision, or deafblind, including via integration in "speech-to-text software, screen readers, and real-time captions."[55]

It is clear that these tools can significantly improve accessibility for people with disabilities, including by facilitating communication and information sharing. However, many of these technologies — including those that were brought up by disability community members throughout the course of the U.S. Access Board's community engagement webinars and public comment periods — can pose some risks for people with disabilities, as well. AI-enabled captioning, for example, can be significantly less accurate than captioning done by a human being, due to mistakes as well as outright hallucinations.[56] These technologies could also inadvertently perpetuate ableism by introducing even more inaccuracy for certain types of speakers, such as those with speech differences or who speak with an accent associated with a specific ethnic group.

Furthermore, many of these tools can pose significant privacy concerns for their users, which is particularly problematic when one considers that users must often disclose sensitive, disability-related information in order to use them. For example, some apps that facilitate navigation services for blind or low-vision people, as well as certain wearable technologies for individuals who are D/deaf or hard of hearing,[57] may collect geolocation and other sensitive data from their users. These users, who are almost exclusively people

---

54   *See Comment from ACL* at https://perma.cc/F5KX-JQHN.

55   *See Comment from The Perkins School of the Blind* at https://perma.cc/9RPG-FD44.

56   Chase DiBenedetto, *For Captioning, Humans Are Still the Key to Accessible, AI-Driven Tech*, Mashable (Aug. 4, 2023) https://perma.cc/T7T3-EMC2.

57   Krista Kennedy et. al., *Balancing the Halo: Data Surveillance Disclosure and Algorithmic Opacity in Smart Hearing Aids*, Project Muse (Winter 2021), https://perma.cc/KM99-U4AV.

with disabilities, are oftentimes not provided information about what the companies that create and sell these technologies do with the information that they collect, including whether they sell it to third parties.[58] Users who are provided with this sort of information rarely receive it in plain language. This can make it even more difficult for people with certain disabilities to understand privacy practices than it is for those without them — and, even for individuals who do not per se require plain language translations, it is extremely for any user to comprehend many privacy policies, which in turn makes it difficult to manage one's online privacy.[59] These privacy tradeoffs put people with disabilities in a difficult position, wherein they must choose whether they wish to protect their privacy or access the services and technologies that they need to live an accessible and independent life — which is hardly a choice at all.

Recommendations

For the disabled community, it is vital that when using communication or assistive technologies, people with disabilities **consider opting in to minimal information and location sharing in order to protect their privacy**. A disabled user's ability to do this may vary from tool to tool, as user control of privacy mechanisms is not standardized across platforms or technologies. Insofar as one can do this, it will allow for some additional control over privacy while still allowing a user to achieve maximum benefit from the technology.

For the private sector, we recommend the following:

▪ Assistive technology developers should **ensure that their tools are privacy protecting**, including adhering to principles of **data minimization**[60] and **purpose limitation, in order to protect sensitive, disability-related data**.

58   Ariana Aboulafia, *Internet Privacy is a Disability Rights Issue*, Tech Policy Press (Jan. 19, 2024) https://perma.cc/2W6C-9MG4.

59   Alice Marwick, *You Are Not Responsible for Your Own Online Privacy*, Wired (Aug. 24, 2023), https://perma.cc/8UFM-RA46.

60   Eric Null et. al., *Data Minimization: Key to Protecting Privacy and Minimizing Harm*, Access Now (May 2021), https://perma.cc/WMR8-ZVTS.

- Developers should also ensure that their **privacy policies are either originally written in plain language, or that a plain language version is available** so that people with disabilities are able to understand their data privacy options.

- AI tools **must be accessible and compatible with assistive technologies** to ensure people with disabilities have equal access to the benefits of technology. This includes AI tools used as part of assistive technology, but also AI tools that are used in other aspects of information and communication technologies (ICT).

The United States Access Board, is the main agency empowered to issue recommendations for best practices for information technology providers regarding people with disabilities. We urge the Access Board to consider the following recommendations:

- Federal agencies should consider **examining the role of the 508 program coordinator**,[61] and the ways in which that coordinator role could be leveraged to inform the agency AI architecture, including synergy with agency CAIOs.

  » It also may be helpful to **provide Section 508 program coordinators with training and education on AI tools**, so that they can best support accessibility efforts.

- Federal agencies should also **consider issuing guidance indicating that Section 508 standards will likely apply to any AI technologies that are procured, developed, and implemented by federal agencies**.

---

61 *See generally, Agency Roles and Responsibilities Related to Section 508* at https://perma.cc/J6UB-WVVX.
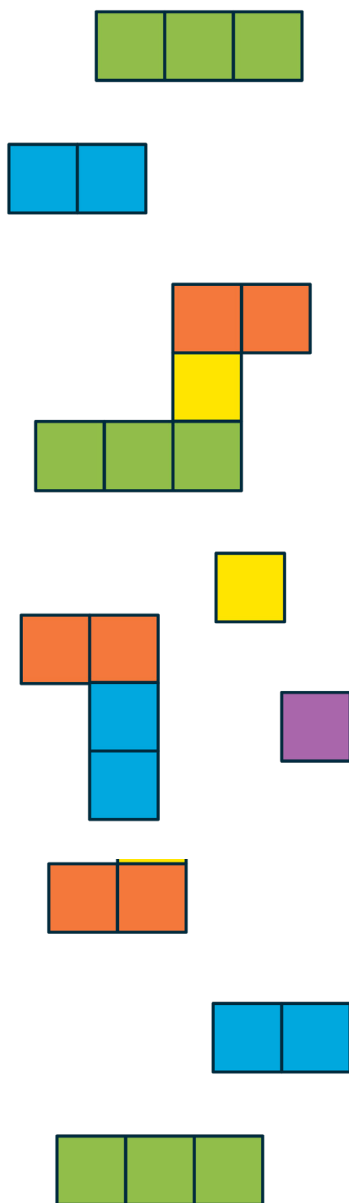
06 Healthcare

Many people with disabilities — particularly those with chronic health issues or multiple disabilities — have frequent contacts with hospitals and healthcare providers, for purposes of emergency care or for regular health management. Unfortunately, healthcare is rife with structural ableism,[62] as well as significant racial[63] and gender bias.[64] These structural and long-standing biases mean that multiply-marginalized disabled people may be specifically at risk of experiencing discriminatory outcomes anytime they interact with the healthcare system or with healthcare providers. This is concerning, of course, because healthcare is a particularly high-stakes environment. When things in hospitals or in healthcare facilities go wrong, people with disabilities can experience detrimental health outcomes, including death. Following this, it is vital that these risks are weighed counter to the purported benefits of these technologies, such as increasing speed or decreasing administrative waste, especially as AI and algorithmic technologies are being integrated into more and more healthcare processes.

62   Dielle J. Lundberg & Jessica A. Chen, *Structural Ableism in Public Health and Healthcare: A Definition and Conceptual Framework*, National Institutes of Health (Dec. 2023) https://perma.cc/AE6H-7WF3.

63   *Racial Discrimination in Healthcare: How Structural Racism Affects Healthcare*, St. Catherine University (June 15, 2021) https://perma.cc/E4NB-TG2H.

64   *Power, Privilege and Priorities in Women's Healthcare*, International Women's Day https://perma.cc/MT2G-3RMS.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

As a general matter, health and hospital systems are using algorithmic and AI tools to aid in all sorts of decision-making, as well as in administrative tasks. The latter use cases can include things like using artificial intelligence to transcribe notes during doctor visits, schedule patient visits, or draft messages that are sent between patients and providers,[65] and are often considered lower risk than the utilization of AI in treatment-impacting contexts. However, even here, there are significant privacy and accuracy concerns that can impact patients and potentially lead to harms, particularly for those with complex health conditions or disabilities. For example, a recent report by the Associated Press found that a software that has been used to transcribe nearly 7 million medical visits has a known history of hallucinations, or inventing material and inserting it into medical transcripts.[66] The same report also noted that some doctors' offices using this software (or similar AI-enabled transcription services) are requesting permission from patients to share the confidential information gleaned during doctor visits with third parties, namely private for-profit tech companies.[67] These accuracy and privacy concerns are problematic for all patients, but may be particularly risky for people with disabilities, who may see multiple physicians and have disproportionate contacts with the healthcare system, thus increasing the likelihood of interacting with these tools.

The potential risks when AI or algorithmic tools are used in treatment-impacting decision-making contexts for people with disabilities are even worse than those for other administrative use cases, like transcription services. For example, so-called "triage algorithms" are being used to determine what level of care someone

---

65   Teddy Rosenbluth, *That Message From Your Doctor? It May Have Been Drafted by AI*, New York Times (Sept. 24, 2024), https://www.nytimes.com/2024/09/24/health/ai-patient-messages-mychart.html?utm_campaign=health_tech&utm_medium=email&_hsmi=326419645&utm_content=326419645&utm_source=hs_email# [https://perma.cc/8S6L-S68E].

66   Garance Burke & Hilke Schellmann, *Researchers Say an AI-Powered Transcription Tool Used in Hospitals Invents Things No One Ever Said*, Associated Press (Oct. 26, 2024), https://apnews.com/article/ai-artificial-intelligence-health-business-90020cdf5fa16c79ca2e5b6c4c9bbb14 [https://perma.cc/8833-GSTY].

67   *Id.*

gets in a hospital.[68] Relatedly, "vulnerability indexes" are algorithms that help healthcare professionals and administrators to decide who gets to stay in a hospital, versus who is discharged to hospice or an alternate type of care facility.[69] Both of these algorithmic systems may take pre-existing conditions or disability-specific characteristics into account when making their determinations, which can lead to disabled patients being denied care from which they would stand to benefit, with next to no transparency or recourse. This in turn can result in negative health outcomes, including death.

Similarly, algorithms that are being used to help physicians to determine who should be prescribed opioids after procedures, depending on their propensity for opioid addiction according to a risk score, can also discriminate against people with disabilities. According to the New York Times, some of these algorithms take into account variables that include how many physicians one sees, and how many pharmacies one visits — numbers that can correlate with disability.[70] Indeed, the same report cited research that has found that "…about 20 percent of the time, people who are flagged as doctor shoppers… in fact have cancer. They typically see multiple specialists, often at academic medicine centers where there may be teams of doctors writing prescriptions. The algorithm can't necessarily distinguish between coordinated care and doctor shopping."[71] Individuals who are chronically ill, or have disabilities other than cancer, have similar experiences — they may need to travel to find care, and may have teams of healthcare providers that help them coordinate their care. It is deeply concerning that the people who may need opioids most — those with multiple, impactful health conditions — are likely being denied that treatment on the basis of a faulty and noninclusive algorithmic system.

---

68 Samantha Tyler et. al., *Use of Artificial Intelligence in Triage in Hospital Emergency Departments: A Scoping Review*, Dr. Kiran C. Patel College of Osteopathic Medicine (May 8, 2024), https://perma.cc/NT3S-ZU58.

69 Gretchen Morgenson, *'You're Not God': Doctors and Patient Families Say HCA Hospitals Push Hospice Care*, NBC News (June 21, 2023), https://perma.cc/DJ2E-9LTU.

70 Maia Szalavitz, *Say Hello to Your Addiction Risk Score – Courtesy of the Tech Industry*, New York Times (April 20, 2024) https://www.nytimes.com/2024/04/20/opinion/addiction-risk-score-avertd-narxcare.html [https://perma.cc/N2A2-4M37].

71 *Id.*

These sorts of AI and algorithmic systems are not supposed to be the final decision makers. As in other contexts, there is supposed to be a "human in the loop" — here, a healthcare provider — who should be the final arbiter of what kind of care or medication a patient receives. However, automation bias[72] (i.e., the tendency of human beings to defer to decisions made by algorithmic and technological systems) can make it difficult to know if physicians and nurses are making decisions that align with the algorithm because they genuinely agree it is the best treatment plan for their patients, or because they subconsciously believe the algorithm must be correct, even over their own instincts. Furthermore, doctors and nurses may have some pre-existing fears of being charged with overprescribing that would make a decision to go against an algorithmic output even more difficult.

While these sorts of in-office and hospital-based use cases are concerning, AI is also impacting people with disabilities in healthcare contexts in their own homes. For example, there are now several AI-integrated technologies that allow medical professionals to monitor someone's health remotely, including "smart home" surveillance systems.[73] Disabled people (or their caregivers) can install these sorts of systems that collect footage of a person with a health condition or disability in their home, and then run that footage through algorithms to check for problems that may require care from a medical professional. There are also wearable technologies that collect personalized health information before running it through algorithms that allow for similar types of monitoring.[74]

These technologies can be helpful, particularly for elderly people or those with disabilities. They may even allow these individuals to remain in their homes as opposed to being relegated to hospitals or institutions. However, these tools can also violate personal privacy by subjecting disabled people to consistent surveillance

---

72   Lisanne Bainbridge, *Ironies of Automation*, (1983) https://perma.cc/Q44F-BG76.

73   *See generally, Senior Care – Stanford Partnership in AI-Assisted Care*, https://perma.cc/U2SJ-2AQY.

74   Neil Sahota, *AI: A Beacon of Hope in Elder Care*, Forbes (April 23, 2024) https://www.forbes.com/sites/neilsahota/2024/04/23/ai-a-beacon-of-hope-in-elder-care/ [https://perma.cc/LR49-F8D7].

and monitoring, even with their nominal consent. Furthermore, and perhaps more importantly, there may be grievous consequences if these technologies do not work as well as they should or stop working entirely. These consequences become more likely when these tools are used as a replacement for (rather than a supplement to) in-person care. For example, if a monitoring device (whether a wearable device or an in-home surveillance system) fails to catch that something is wrong, or fails to alert the proper medical professionals in a reasonable amount of time, disabled and/or elderly people could suffer negative health outcomes. There is a real risk that these devices may not work perfectly all the time, for several reasons. They may not, for example, be trained on datasets that include information about unusual disabilities, or rare conditions or diseases and how they manifest. These devices may also rely on electricity or the internet to function, and if those services go down (such as during a storm), interruptions of care could occur that could also lead to negative health outcomes.

Recommendations

For the disabled community, we recommend the following best practices when engaging with the healthcare system:

- To the best of their ability, people with disabilities should **utilize patient advocates** while in hospital settings or interacting with healthcare providers. These professionals may be able to advocate for equitable treatment for people with disabilities.

- To the best of their ability, people with disabilities should **review their electronic health records after doctor's visits or hospital stays for accuracy**, or have a trusted family member, friend, partner, or caregiver help them do so.

  » Electronic health records may be inaccurate as a result of a human mistake, or because of artificial intelligence tools that either hallucinate or simply do not work very well. It may be easier for a patient will catch these mistakes than a provider.

» To protect their privacy, patients should review electronic health records on HIPAA-covered apps and/or services directly from a medical provider. Using third-party apps and/or services may result in exposing health data to an infinite chain of unintended third parties without the patient's knowledge or consent.

- People with disabilities may be tempted to **incorporate at-home monitoring technologies** as part of their care plan. However, they should be aware that these devices and systems **are not viable replacements for in-person medical care, particularly for individuals with complex health needs**. If a person with a disability does wish to use these tools, they should be considered a supplement to care by providers rather than a replacement.

  » Similarly, for privacy reasons, if people with disabilities do wish to use these sorts of technologies, they should choose devices and technologies that come from their providers as opposed to third parties.

For the private sector, particularly healthcare providers and private hospital systems, we recommend the following:

- Hospital systems should **conduct pre-deployment audits** that focus on the impact of AI and algorithmic tools on people with disabilities, particularly those who are multiply-marginalized.

- Healthcare providers should **exercise great caution around the use of AI in hospital systems**, and should never adopt AI tools with the specific goal of replacing human healthcare providers.

There are several agencies that oversee the provision of healthcare services in ways that impact people with disabilities, including the **Department of Veterans Affairs (the VA)** and the **Department of Health and Human Services (HHS)**. While these recommendations will focus on HHS, it should be noted that the VA and other agencies that interact with healthcare services should be cognizant of the impact of algorithmic and AI-integrated healthcare tools on people with disabilities, and consider these recommendations as best practices as applicable. For the Department of Health and Human Services, we recommend the following courses of action:

- The Department of Health and Human Services should consider recommending that federally funded hospital systems **not implement AI health monitoring programs with the express goal of replacing nurses or other healthcare professionals**.

- The Department should also consider, whether now or sometime in the future, requiring federally funded hospitals that already use algorithmic systems **to have those algorithms audited for racial, gender, and disability bias** ("post-deployment audits").

07 Transportation
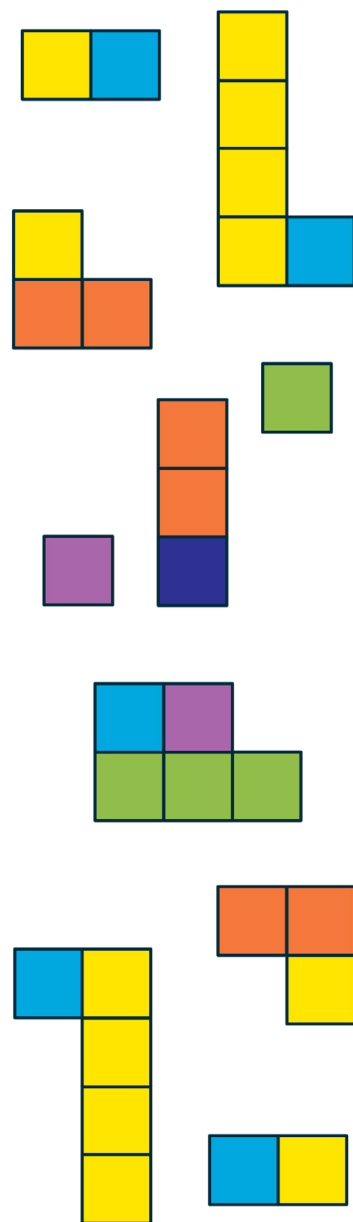
AI and algorithmic tools, including facial recognition technologies, are being incorporated into transportation, oftentimes as part of a security or screening measure. Some of these tools rely on biometrics, defined as unique physical characteristics (like fingerprints and facial features) used for automated recognition.[75] While the use of any biometric technology can pose privacy concerns, biometrics for security at airport checkpoints are quite popular; in fact, a recent survey found that four out of five travelers approved of the use of biometrics in this context.[76] This is likely because travelers believe that the integration of biometric tools into airport checkpoints keeps travelers safe and allows for faster movement through security,[77] as opposed to because individuals are not concerned about privacy considerations.[78] In addition to privacy concerns, biometric tools also pose the risk of having a discriminatory impact on people with disabilities. For example, tools that require retinal scans may not work properly on individuals with prosthetic eyes, or even those with atypical eye movements; similarly, tools that require

---

75   *See generally, Biometrics – Department of Homeland Security*, https://perma.cc/QU8W-8D7W.

76   *U.S. Travel Association Biometric Survey Results – Topline Findings*, Ipsos (Sept. 5, 2024) https://perma.cc/PZQ2-9REE.

77   *Id.*

78   See Brooke Auxier et. al., *Americans and Privacy: Concerned, Confused and Feeling Lack of Control Over Their Personal Information*, Pew Research Center (Nov. 15, 2019) https://perma.cc/EHV5-TSGP.

fingerprint recognition may not work properly on individuals with limb differences, or people who have had their skin severely injured in a burn.[79]

If the Transportation Security Administration (TSA) is considering expanding its use of biometrics for travelers, this should not be done without significant additional consideration of the impact of an expanded biometric security schema on disabled people. Currently, though, the TSA uses facial recognition technology at security checkpoints for air travelers that functions by comparing facial scans done in airports to other available facial images (i.e., by cross-referencing the in-person scan with a photo from a driver's license or passport that are available for agents to review).[80] Certain private ride-hailing companies also have a rider verification process that operates in the same way.[81] Even if these tools are using facial recognition technologies solely for identity matching purposes, this particular method of incorporating facial recognition into transportation can still have discriminatory outcomes for travelers with disabilities. For example, a disabled person may have gotten their driver's license, then acquired some sort of facial difference, and then attempted to go through airport security — in this instance, that individual may face additional barriers to getting through security due to difficulties with facial matching, on the basis of disability. Furthermore, these sorts of facial matching programs can be impacted by weight loss and weight gain,[82] and there are several disabilities (and treatments for disabilities, including steroids and chemotherapies)[83] that can lead to weight gain or loss, or even

79   Katherine Harmon, *Can You Lose Your Fingerprints?* Scientific American (May 29, 2009) https://perma.cc/5CBE-M5CE.

80   *Facial Recognition Technology*, The Transportation Security Administration, https://perma.cc/5DCU-23HJ.

81   *See generally, Advancing Trust and Safety*, Uber, https://www.uber.com/us/en/safety/rider-verification/# [https://perma.cc/BZ7S-45FJ].

82   Wen, L., Guo, G., & Li, X. (2014, September). A study on the influence of body weight changes on face recognition. In *IEEE International Joint Conference on Biometrics* (pp. 1-6). IEEE.

83   *See generally, Weight Changes,* American Cancer Society, https://perma.cc/Y9FY-LDP3.

facial swelling that may present as weight gain.[84] Because these tools raise significant accuracy concerns for disabled people, it is important for agencies to know that the technology can work for these sorts of situations, and to ensure that there are opt-out and alternative screening measures for those with disabilities who are unable to pass through these facial matching technologies.

Outside of the airport context, there are many other transportation-related concerns for people with disabilities. For example, connected cars — that is, "smart" vehicles that may come equipped with microphones, cameras, and other sensors that can collect massive amounts of data from drivers and passengers in vehicles — pose significant privacy threats to both people with and without disabilities.[85] According to a report by the Mozilla Foundation, aptly entitled "It's Official: Cars Are the Worst Product Category We Have Ever Reviewed for Privacy," all twenty-five of the car brands reviewed "collect [...] more personal data than necessary and use [...] that information for a reason other than to operate your vehicle and manage their relationship with you."[86] The report also noted that, of the car companies reviewed, 84 percent said they were able to share the personal data of drivers and riders, while 76 percent said they could sell your personal data and 56 percent said they would share your personal data in response to a law enforcement request (as opposed to a court order, under which disclosures obligations may apply).[87]

For people with disabilities, some of the data that these car companies are collecting — and then potentially sharing with third parties — could be extremely sensitive, and related to one's health or disability. The Mozilla report mentioned, for example, that one

---

84   *See generally, What Is Moon Face and What Can You Do About It?*, Healthline, https://perma.cc/CB4B-82FN.

85   AJ Firstman, *Your Car May Be Watching You, Listening to You, and Profiting From It*, FindLaw (Sept. 11, 2023), https://perma.cc/9JMS-PFLP.

86   Jen Caltrider et. al., *It's Official: Cars Are The Worst Product Category We Have Ever Reviewed for Privacy*, Mozilla Foundation (Sept. 6, 2023), https://perma.cc/8QL4-F2Q9.

87   *Id.*

company's privacy policy states that it can collect and share a driver or passenger's "sexual activity, health diagnosis data, and genetic information and other sensitive personal information for targeted marketing purposes."[88] The policy also mentions that the same company reserves the right to share and sell "inferences drawn from any Personal Data collected to create a profile about a consumer reflecting the consumer's preferences, characteristics, psychological trends, predispositions, behavior, attitudes, intelligence, abilities, and aptitudes" for targeted marketing purposes.[89] This sort of policy was not unique to this individual company; the Mozilla report noted that six of the companies that they researched had privacy policies that allowed for those companies to collect "genetic information" or information on "genetic characteristics" from riders or drivers.[90] People with disabilities may inadvertently disclose this sort of information while in a car, and may not have any idea that this information is being collected and shared. Some people conduct virtual therapy sessions in their cars;[91] others may make phone calls to their doctors' offices or insurance companies where they discuss diagnoses or test results. The idea of this type of information being collected by a third party — and then potentially shared even more widely — is concerning, and something that people with disabilities should consider when determining what sort of vehicle to purchase.

Autonomous vehicles (also known as "self-driving cars") can also pose privacy concerns, as they collect massive amounts of information not only from passengers but also from pedestrians and other passers-by in order to function properly.[92] This can pose a unique privacy threat for people with disabilities, because they may be more likely to use these sorts of cars (particularly individuals

---

88   *Privacy Not Included – Nissan*, Mozilla Foundation (Aug. 15, 2023), https://perma.cc/KP6F-CDBS.

89   *Id.*

90   *See* Jen Caltrider et. al., *supra* at footnote 86.

91   *See e.g.*, Donna Fish L.C.S.W.-R, *Doing Therapy in Cars*, Psychology Today (Aug. 16, 2021) https://perma.cc/3AQ8-JPFJ.

92   Matthew Guariglia, *The Impending Privacy Threat of Self-Driving Cars*, Electronic Frontier Foundation (Aug. 4, 2023) https://perma.cc/L5P9-NTP3.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

who are blind or low-vision), and may consider autonomous vehicles to be an accessible form of transportation.[93] Indeed, autonomous vehicles were mentioned as a potential accessibility boon for disabled people during a U.S. Access Board hearing on disability inclusion in AI by three separate community members.[94] Even as a matter of accessibility, though, autonomous vehicles could stand to be improved: for example, there is evidence that they do not perceive certain pedestrians in wheelchairs as people, which can lead to collisions.[95] There are many privacy and accessibility concerns for people with disabilities related to the integration of AI and algorithmic technologies into transportation and transit systems, but there are ways to mitigate potential harms.

Recommendations

For the disabled community, we recommend that people with disabilities **consider utilizing the alternative security screening measures** that are available for travelers (for example, those offered for air travelers through the TSA), particularly if they do not wish to undergo facial recognition screenings or believe they will not be able to do so due to a disability. Disability rights and justice advocates, particularly those who engage in transportation advocacy, **should ensure that community members are aware of these alternatives**.

---

93   Alan Wirzbicki, *A Revolution in the Making: How Self-Driving Cars Might Transform the Lives of Blind and Vision-Impaired People*, Boston Globe (Aug. 15, 2023) https://perma.cc/5BYM-2C7D.

94   Theo Braddy, Executive Director of the National Council on Independent Living; Robin Troutman, Deputy Director of the National Association of Councils on Developmental Disabilities; and Dr. Arielle Silverman, Director of Research at the American Foundation of the Blind.

95   Ian Moura, *Addressing Disability and Ableist Bias in Autonomous Vehicles: Ensuring Safety, Equity, and Accessibility in Detection, Collision Algorithms, and Data Collection*, Disability Rights and Education Defense Fund (Nov. 7, 2022), https://perma.cc/JLA2-Q7W5.

For the private sector, we recommend that **developers of AI tools that are being incorporated into transportation prioritize accessibility** of those tools to people with disabilities, and **design their tools using principles of inclusive design**. This includes considering the unique ways that these technologies, including those that rely on facial recognition or other biometric inputs, can impact people with disabilities (including facial differences), and designing with this in mind.

Although there may be other agencies that engage in transportation work, the **Department of Transportation (DOT)** and the **Transportation Security Administration (TSA)** are the main agencies that oversee this area. For these agencies, we recommend the following courses of action:

- The Department of Transportation should advocate for **transportation services to be accessible to people with disabilities**, particularly if they are marketing themselves as accessible transit solutions (e.g., autonomous vehicles).

- Federal agencies currently have an obligation[96] to create opt-out mechanisms for people with disabilities when they encounter rights-impacting systems, including those that impact their ability to travel. We recommend that the Department of Transportation **uplift this requirement in guidance**, and **emphasize that these opt-out mechanisms, as well as their alternatives, must be accessible to people with disabilities**.

- As the Transportation Security Administration is considering the expansion of their use of biometric and/or facial recognition tools, including at airport security checkpoints, **people with disabilities should be consulted prior to implementation of these tools**. As part of this consultation, **pre-deployment audits** that include the potential impact of these tools on disabled populations should be done.
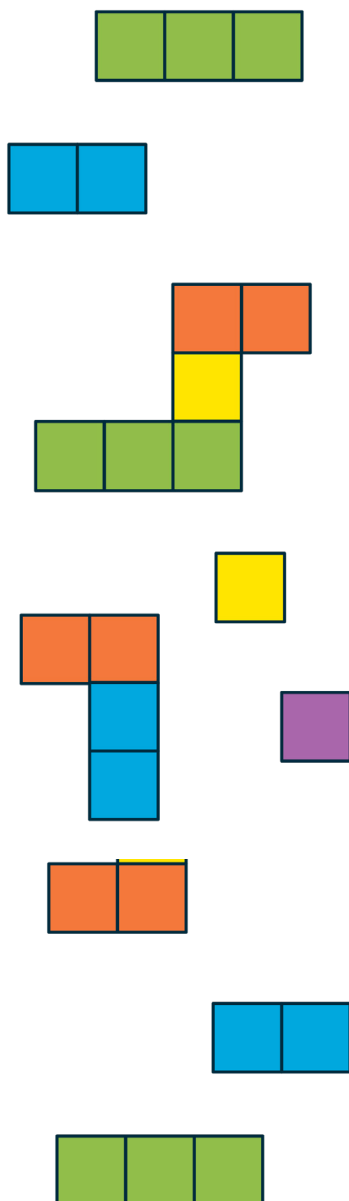
---

96   *See e.g.*, federal implementation memos M-24-10 and M-24-18 at https://perma.cc/3VAG-ZE49 and https://perma.cc/RHF9-CUEP.

» Furthermore, **post-deployment audits that include impact on people with disabilities** should also be completed, and used to determine whether these technologies are retained or removed.

08 Criminal Legal System

People with disabilities are disproportionately impacted by the criminal legal system. Indeed, according to the Prison Policy Initiative, disabled people are overrepresented at all stages of the system, from jail to prison to probation and parole.[97] Specifically, while approximately 15 percent of Americans have a disability, nearly 40 percent of people in state prisons are disabled.[98] This means that, as AI and algorithmic technologies are integrated into the criminal legal system, these technologies will also have a disproportionate impact on disabled people. In all contexts, but especially in this one, it is vital to recognize the impact of multiple marginalization; a disabled person who is multiply marginalized in any way, including disabled people of color and disabled LGBTQ+ people, face a disproportionate risk of interacting with the criminal legal system in general, including technologies integrated into that system, and also face disproportionate risk of being harmed by those systems and its technologies.

AI and algorithmic tools are currently being used to help make many determinations in the context of the criminal legal system, which is of particular concern due to the inherently high-risk nature of this sort of decision-making. For example, certain jurisdictions

---

97   *See generally, Disability – Prison Policy Initiative* at https://perma.cc/9S9T-ELYC.

98   *Id.*

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

use various forms of risk assessment algorithms that aim to determine likelihood of reoffense or recidivism — these are often incorporated into pretrial release decision making processes by judges. Many of these algorithms have been shown to have racial bias,[99] and likely have some disability bias as well, especially if they take into account employment history (which can be less stable for disabled people, due to discrimination or other factors) and/or the presence of substance abuse disorder or related previous convictions.

The impact of pretrial release algorithms on disabled people was uplifted as an area of concern for the disability community during both the aforementioned hearings on disability and AI administered by the U.S. Access Board and the related public comment period. During one of the hearings, for example, the Legal Director of the Bazelon Center for Mental Health Law, Megan Schuller, stated that she considered "pretrial sentencing tools" an example of a particularly concerning use of AI that could amplify existing systemic disability biases.[100] Furthermore, in a public comment, community member Kate Caldwell wrote:

> "...pretrial risk assessment algorithms not only reproduce existing biases against race- and class-subjugated communities in the criminal legal system, but also reinforce biases against...historically underrepresented groups."[101] (internal citations omitted).

Another area of concern for disabled people related to the criminal legal system is predictive policing software. This refers to surveillance and algorithmic technologies that have been adopted by several police departments in order to determine which communities should be targeted for allegedly prophylactic over-policing, based on areas that contain individuals who are more likely

---

99   Julia Angwin et. al., *Machine Bias,* ProPublica (May 23, 2016) https://perma.cc/43AH-VW6H.

100   *See Federal Agency and Industry Practitioner Hearing on Artificial Intelligence*, U.S. Access Board (Aug. 22, 2024) at https://perma.cc/3MDM-4GFF.

101   *See Comment from Kate Caldwell* at https://perma.cc/8W2Y-DLEP.

to commit crimes in the future.[102] These tools have repeatedly been found to perpetuate the racial bias that already exists in the criminal legal system, and likely perpetuate disability-related biases as well. There are at least two reasons for this: one, because certain racially marginalized groups are disproportionately likely to be disabled;[103] and two, because these tools take into account previous contacts with the criminal legal system and, as this document has already established, disabled people are disproportionately represented in this system. The negative consequences of these tools can have significant implications for disabled communities.

Recommendations

For disabled people who are interacting with the criminal legal system, we recommend that they strongly consider **disclosing their disability or disabilities to their attorneys**. This disclosure may help attorneys to understand how algorithms could impact their case, and raise concerns if necessary or applicable.

Attorneys who have disabled people as clients — including federal public defenders — should **educate themselves on what types of risk assessment tools are being used by prosecutors, courts, or probation or parole offices**, and ensure, to the best of their ability, that they are granted a meaningful opportunity to **raise concerns about and dispute inaccurate or biased information informed by these algorithms**.

The federal agency with the most ability to influence the implementation of technology in the criminal legal system is the **Department of Justice (DOJ)**.

---

102   Lydia X.Z. Brown et. al., *Ableism and Disability Discrimination in New Surveillance Technologies*, Center for Democracy & Technology (May 2022) https://perma.cc/ SD4B-KJJR.

103   Nanette Goodman et. al., *Financial Inequality: Disability, Race, and Poverty in America*, National Disability Institute https://perma.cc/L4E5-RRHY.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)

- Per existing guidance **predictive policing tools are presumed to be rights-impacting**. Therefore, federal police departments **must follow the established risk mitigation requirements or abandon the use of these tools**.[104] While state and local police departments are not bound by this guidance (and therefore do not have to follow these mitigation procedures), the **DOJ should advise these departments** of these mitigation options as best practices.

- The Department should **consider contractually requiring state and local police departments who receive federal funding under grant programs**, including the Byrne grant program,[105] to comply with existing standards for AI risk mitigation measures if any federal funding is expended to procure or use AI.

---

104   *See e.g.*, federal implementation memos M-24-10 and M-24-18 at https://perma.cc/3VAG-ZE49 and https://perma.cc/RHF9-CUEP (also cited, supra, at footnote 96).

105   *See, Byrne Discretionary Grant Program*, Department of Justice at https://perma.cc/JPB2-KS7V.

09 Conclusion
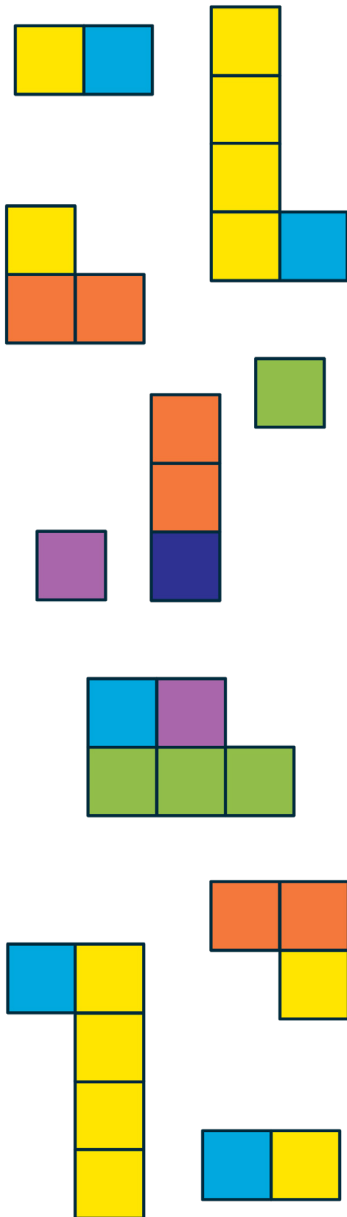
Disabled people, and the disability community, are not monoliths. It is important to acknowledge that AI and algorithmic tools can serve as a benefit for accessibility and, at the same time, may negatively affect people with various disabilities. People with disabilities can be impacted by technologies in nearly every system that they interact with, including education, employment, government benefits, information and communications technology (ICT), healthcare, transportation, and the criminal legal system.

This report aims to provide context as to some of the ways that people with disabilities can be both positively and negatively impacted by technology, while recognizing that disabled populations interact with systems, and with technologies, in different ways and have different access needs. The recommendations within this report are by no means exhaustive, and are meant to be viewed as a starting point and a resource.

Both through our partnership, and our work on disability rights and technology, the Center for Democracy & Technology and the American Association of People with Disabilities remain committed to serving as resources for the disability community, private sector, and agencies.

We will continue to move forward together to create and implement inclusive and equitable policies and procedures that maximize the benefits and minimize the harms of AI and algorithmic technologies for people with and without disabilities.

Ariana Aboulafia (CDT) & Henry Claypool (AAPD)