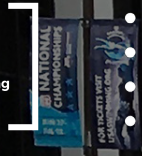




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# UNITED AGAINST ALGORITHMS

A primer on disability-led struggles  
against algorithmic injustice

### **Acknowledgement of Country**

In the spirit of reconciliation, we acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past, present and emerging, and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

### **Cover Image**

Members of ADAPT Indiana protest the loss of Medicaid benefits in Indianapolis, Indiana, US, in 2017. Photo by Gerry Justice

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## 01. INTRODUCTION

Governments are progressively integrating data-driven algorithmic systems into critical domains related to the health and welfare of people with disability. These applications encompass tasks such as detecting benefit fraud, assembling disability support plans, and determining eligibility for disability benefits and services.

Algorithmic decision-making (ADM) poses urgent concerns regarding the rights and entitlements of people with disability from all walks of life. As ADM systems become increasingly embedded in government decision-making processes, there is a heightened risk of harm, such as unjust denial of benefits or inadequate support, accentuated by the expanding reach of state surveillance.



ADM systems have far reaching impacts on disabled lives and life chances. Despite this, they are often designed without the input of people with lived experience of disability, for purposes that do not align with the goals of full rights, participation, and justice for disabled people.

This primer explores how people with disability are collectively responding to the threats posed by algorithmic, data-driven systems, specifically their public sector applications. It provides an introductory overview of the topic, exploring the approaches, obstacles, and actions taken by people with disability in their “algoactivist” struggles. Algorithmic activism, or “Algoactivism”, refers to the collective efforts of individuals and groups to advocate for social and political change in response to the impact of algorithms on various aspects of life, from employment and labour to education, health, and welfare.<sup>1</sup> The term recognises the increasing influence of algorithms in shaping social life and underscores the importance of activism and advocacy in addressing the harms inflicted by algorithms, especially on socially marginalised groups.

Algoactivism is a relatively new frontier in the ongoing struggle against disability discrimination and oppression. As detailed below, disability activists are making progress in tackling these issues through legal initiatives and grassroots efforts. However, many disability organisations and movements worldwide are still coming to grips with the far-reaching consequences of government reliance on algorithmic technologies.



This primer has therefore been designed to provide a concise overview of essential concepts needed to understand and intervene in the politics of algorithms from a disability justice standpoint. In addition to intellectual resources, it provides a collection of materials and strategies designed to support disability-led groups advance their “algoactivist” causes. Its primary audiences are scholars and activist/advocate practitioners. Nevertheless, the concepts and principles also bear relevance to policymakers committed to steering the trajectory of technology development toward outcomes that benefit rather than harm people with disability. Case studies presented throughout the primer provide real-world examples of principles being put into practice through collective action. Yet they also show that addressing algorithmic injustice is an ongoing task, because the underlying social conditions that facilitate harm often remain intact even when

specific technologies are reprogrammed or abandoned. Punitive and coercive cultures prevail in which individuals are blamed for their misfortunes while public provisioning diminishes and inequality further intensifies.

While understanding algorithmic injustice through a disability lens is a first step towards addressing widespread harms, it is only the beginning of a comprehensive effort to identify, challenge, and rectify the systemic issues at play. This work demonstrates the importance of an approach that combines research and activism as part of, or in solidarity with, movements for disability justice.

The primer is based on desk-based research and a workshop conducted in June 2023 at the Data Justice Lab, at Cardiff University’s School of Journalism, Media and Culture. The workshop was titled Recognising, Resisting, and Reorienting Algorithmic Systems for Disability Justice.

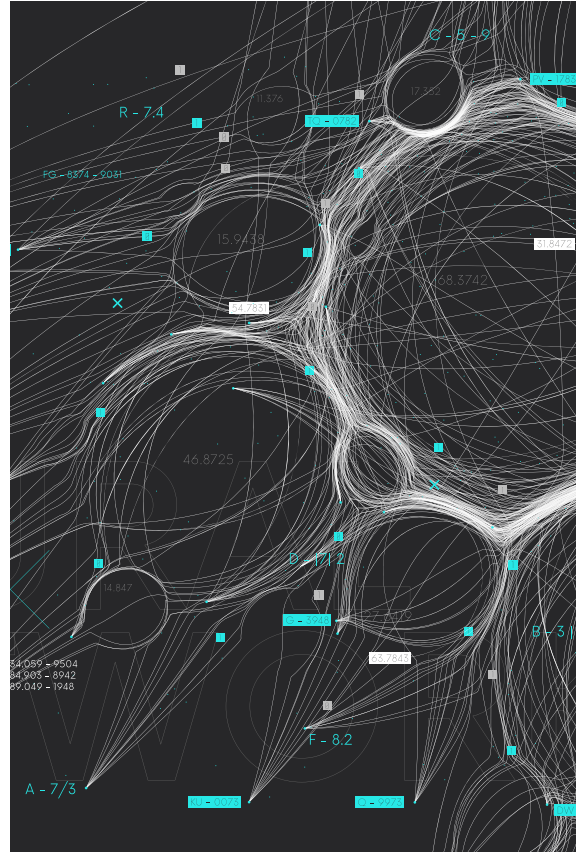
## 02. BACKGROUND

On June 28, 2023, the Data Justice Lab and the ARC Centre for Automated Decision-Making and Society (Australia) brought together experts with lived experience, disability activists and advocates, legal scholars, and academics to discuss the problems and potentialities that ADM poses for disabled people. The workshop was a forum for those interested in the intersection of ADM and disability justice to collaborate, exchange ideas, learn, deliberate, strategise, and envision ways to foster a future where public sector ADM aligns with principles of disability justice.

Twenty workshop participants heard from five speakers (see Appendix 1) about the diverse dynamics that put people with disability at a high risk of algorithmic harm in their interactions with government. The presenters, whose contributions are quoted throughout this primer, shared insights about how digital data is used to measure and classify disability for administrative purposes, instances of prejudice and unfair treatment, and the ways ableism and cross-cutting forms of racism, sexism and class inequalities are embedded in ADM systems.

This was proceeded by a discussion in which the speakers also heard from participants, fostering a rich exchange of perspectives on the issues. During this discussion, participants had the opportunity to voice their concerns, connect with others, and share insights from the research, activist and outreach projects they were involved with. As a group we also discussed solutions and strategies to address the complex issues raised during the workshop.

Of special interest was how disability-led organisations and movements



are responding to algorithmic harms experienced by their communities. These include, for example, harms associated with heightened government surveillance, technology-mediated professional gatekeeping, and forms of algorithmic disability discrimination. As a group we discussed strategies to ensure governments are held accountable for algorithmic harms and explored ways to resist and reorient algorithmic systems towards more just futures.<sup>2</sup>

The desk-based research component of this project involved a review of literature on algorithmic and data justice activism, with a focus on disability. Key concepts unearthed in this exercise and through the workshop discussion are summarised in

the following section. While by no means a complete collection, these concepts provide entry points for understanding the concerns and demands of disability activist struggles currently being fought within the courts and in the streets.

The courts are a key site of contestation between communities and governments in relation to algorithmic harms. This is a growing area of interest for legal scholars, whose work is mapping the legal challenges initiated by citizens against automated government decision-making in various countries across the globe.<sup>3</sup>

Reviewing legal cases was, therefore, another aspect of the desk-based research that informed this primer. In many countries, disability groups are pursuing legal remedies to address the harmful effects of, for example, algorithmic fraud detection (United Kingdom) and the allocation of care hours determined by algorithmic social profiling (the United States). These case studies are highlighted to demonstrate the power of legal mobilisations, especially those led by affected communities. They detail specific instances where governments have been held accountable, leading to the revision or discontinuation of their ADM systems in certain cases.



## 03. KEY CONCEPTS

### Algorithmic systems/ADM systems

This primer focuses on algorithmic systems, specifically algorithms within their wider social and organisational settings. AlgorithmWatch, a European non-profit advocacy organisation, offers the following definition:

*Algorithmically controlled, automated decision-making or decision support systems are procedures in which decisions are initially—partially or completely—delegated to another person or corporate entity, who then in turn use automatically executed decision-making models to perform an action<sup>4</sup>*

ADM systems are partially or fully automated through computerised processes, often but not always involving the analysis of large datasets.

*By saying systems instead of technologies we point to the fact that we need to take a holistic approach here: an ADM system, in our use of the term, is a socio-technological framework that encompasses a decision-making model, an algorithm that translates this model into computable code, the data this code uses as an input—either to 'learn' from it or to analyse it by applying the model—and the entire political and economic environment surrounding its use. This means that the decision itself to apply an ADM system for a certain purpose—as well as the way it is developed (i.e. by a public sector entity or a commercial company), procured and finally deployed—are parts of this framework<sup>5</sup>*

### Disability justice

Any concept of disability justice must first contend with the meaning of disability. Disability is in the broadest sense a human condition with a diverse and evolving range of meanings extending across the biomedical, psychological, social, cultural and political-economic domains. Social-relational standpoints view disability as not merely an individual's medical or functional limitation but as a product of the interaction between an individual's impairment(s) and societal conditions. From this perspective, disability is understood in the context of social and environmental factors that limit full participation, rights, and inclusion.

Disability justice refers to the various efforts aimed at challenging the societal oppression faced by people with physical or mental conditions, which are, in part, shaped or at least influenced by capitalist, racialised, gendered and other structures of power.

*Disability justice, a framework developed by queer, disabled women of color, transcends a narrowly individualized disability rights model, and emphasizes that disability liberation is tied to the liberation of all peoples, necessitating anticapitalist movements led by those at the furthest margins of society<sup>6</sup>.*

In this context, "liberation" can mean various things, ranging from the elimination of obstacles in the social or physical environment to the restructuring of capitalist-colonial social relations.

For our purposes here, disability justice refers to an approach aimed at addressing



and rectifying potential biases, inequalities, discriminatory impacts, and forms of violence against people with disability, particularly those resulting from the use of algorithmic systems. It emphasises the need for inclusive and accessible design, as well as the consideration of the diverse experiences and needs of people with disability in the development and deployment of technological solutions. Yet many argue that disability justice goes well beyond inclusive design, recognising the interconnectedness of disability justice with broader systemic changes. Bennet and Keyes:

*we advocate that everyone interested in questions of disability and AI critically examine the overarching social structures we are participating in, upholding and creating anew with our work. Doing so requires and results in a centering of our work not on questions of fairness, but on questions of justice<sup>7</sup>*

Applying a justice lens, Whittaker et al note that “Disabled people have been subject to historical and present-day marginalization, much of which has systematically and structurally excluded them from access to power, resources, and opportunity. Such patterns of marginalization are imprinted in the data that shapes AI systems, and embeds these histories in the logics of AI.”<sup>8</sup> The logics of ADM systems used by governments likewise have reflected a history of state violence and oppression towards people with disability. Disability scholars, recognising the political nature of classification, have been actively engaged in studying and resisting harmful classifications. Soldatić’s work for example illustrates that throughout history systems of work and qualification for state assistance have relied on the mobilisation of flexible

and evolving definitions of disability.<sup>9</sup> Technologies of classification play a key role here, socially sorting the “deserving” from the “undeserving poor”, and in so doing actually producing the category of disability as comprised of those who fall outside dominant understandings of the fit, able-bodied white worker-citizen. This process of social sorting contributes to the (re)production of capitalist social relations, targeting social aid at groups judged unfit to work and therefore “deserving” of more generous forms of welfare.

Needless to say, these decisions have life changing impacts for the individuals involved. Negative classifications reinforce stigma, while the resulting decisions can further entrench patterns of group disadvantage. Algorithmic fraud detection systems employed by French and British authorities, for instance, have been found to disproportionately target the most precarious populations, including single parents and people receiving disability benefits, by assigning them elevated risk scores.<sup>10</sup> Considering the progressively digitalised and data-driven nature of this categorisation process, along with the recurring instances of disability discrimination embedded in algorithms, disability scholars advocate for the adoption of a disability justice approach when scrutinising technologies of classification.<sup>11</sup>

## Case study 1: Resisting RoboNDIS from the ground up

In 2023, a coalition of Australian disability activists initiated a campaign against “RoboNDIS,” denouncing the detrimental impact of algorithmically generated disability support plans. Their demand is for a Royal Commission into the National Disability Insurance Agency (NDIA), which oversees Australia’s public disability support system, and its use of technology and automation.

The campaign group, comprised of people with disability, families and allies, says algorithms broke the NDIS operating model. They say the lack of transparency and accountability in the NDIA’s use of ADM systems has caused significant harm to individuals and families, as well as eroded public trust in the scheme.

The NDIA uses a data-driven method to classify individuals based on diagnostic and demographic information they provide to the agency. The classification process creates an initial funding package that case workers can then modify according to individual needs and preferences.

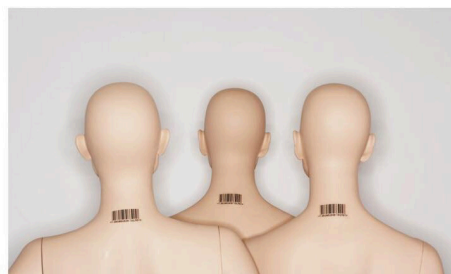
However, there are indications that case worker discretion is frequently not exercised – ie, case workers may be deferring to the algorithmically generated support plans – due to inadequate training and resources. The concern is that medical and demographic data do not paint a full picture of disability, and so even with some degree of human input, the social profiling process is highly problematic. Computational approaches to assessing disability prioritise certain aspects such as

bodily function, while downplaying social, relational, and contextual details.<sup>12</sup> In the realm of welfare state decision-making, where algorithms shape possibilities for addressing social disadvantage, algorithmic misrepresentations of disability lead to tangible consequences such as inadequate funding and support plans.

To compensate people who have been harmed by this system, campaigners are also seeking to mount a class action against the government. Campaign co-founder, Marie Johnson, says “The NDIS Class Action effort is building massive evidence of unlawful practices and breaches of legislation across the full gamut of public administration in Australia. There is a moral, ethical and legal duty to stop this.”<sup>13</sup>

So far, the campaign has been met with a subdued response from government, which claims there is “no massive algorithm program” underlying the scheme.<sup>14</sup> However, campaigners argue that the impact of algorithmic processes on disability support plans requires a more thorough examination and transparency from the government.<sup>15</sup>

**The NDIA have built 400  
personas to cover  
530,000 people**



**This is how they see us.  
Say NO to #RoboPlans**

**#nodisadvantag**  
We want a fairer NDIS and a guarantee that disability support will not be worse off than other Australians

## Algorithmic activism

Algorithmic activism, or “algoactivism”, a term used to describe emerging forms of worker resistance within and beyond the workplace, encompasses a spectrum of strategies aimed at challenging algorithmic control.<sup>16</sup> From individual practical actions to collective organising, discursive framing, and legal mobilisation, algoactivism reflects the multifaceted responses employed in resistance to algorithmic surveillance and decision-making.

**Individual resistance** often involves forms of noncooperation, where people strategically ignore or manipulate algorithm-generated recommendations or engage in data obfuscation to disrupt surveillance. In the United States, for example, disability benefit applicants’ claims are influenced by social media surveillance conducted by government agencies such as the Social Security Administration<sup>17</sup>. Individual resistance in this instance might involve adopting privacy measures such as adjusting settings to limit public visibility, or avoiding content that might create a misleading impression about their dis/abilities. In doing so, individuals strategically navigate social media scrutiny, mitigating the risk of their disability claims being negatively impacted by algorithmic surveillance by the state.

**Collective action** takes place on a wider scale, often through grassroots community organising, lobbying and campaign work. These collaborative efforts often focus on systemic concerns, although the focal points of these struggles vary. At times, critique centres on the inner workings of algorithms, such as how they are coded in ways that distort, simplify, or overlook certain disabilities (see case study 1). For example, a decision support tool employed by the Arkansas Department of Human Services

for determining individuals’ eligibility for home care hours had coding errors which omitted specific conditions such as diabetes and cerebral palsy from consideration. This resulted in flawed calculations and reduced care hours for hundreds of individuals.<sup>18</sup>

When it comes to assessing eligibility for state funded disability support, disability advocates worry that algorithmic assessment tools, which rely on quantitative metrics, overlook the qualitative aspects of individual needs, experiences, and capabilities. This can result in a reductionist approach that fails to capture a holistic picture of disability, as illustrated in the example provided in case study 1, where disability groups spoke out against algorithmic misrepresentation and underestimation of funding entitlement due to reliance on algorithmic assessment tools.<sup>19</sup>

Other times, the concern is that disability and health data are used in ways that discriminate against people with disability, leading to *too much* visibility and scrutiny. Some ADM systems, for example, leverage this information to assess the likelihood that a person might be violent or neglectful towards their children or commit benefit fraud. This can lead to increased government surveillance and severe infringements of rights, including the removal of children. In response, disability and civil liberties groups have launched campaigns, lobbied politicians, engaged traditional and social media, and leveraged research findings to raise awareness and advocate for change (see case study 2).

## Case study 2: Discriminatory uses of disability data

In August 2016, the Allegheny County Department of Human Services (DHS) in Pennsylvania, United States, introduced the Allegheny Family Screening Tool (AFST), a predictive risk assessment tool created to enhance the decision-making process for screening calls related to child welfare. The tool was designed to assist screening workers in deciding whether to investigate or dismiss allegation of abuse and neglect. Drawing on extensive collection of personal data sourced from child welfare records, as well as data drawn from medical and mental health, jail and probation records and drug and alcohol services, among other governmental datasets, the system generates a risk score calculated to estimate the likelihood of child removal within two years.



The tool's developers and the Allegheny County DHS consider removal as an indicator of potential harm, linking a higher likelihood of removal to a greater need for child welfare intervention. The score ranges from 1 to 20. The higher the score, the more significant the perceived risk.

Algorithmic risk scoring has faced criticism for perpetuating discrimination, specifically impacting parents with disabilities and Black, migrant, and disabled women with histories of coercive state violations of their reproductive rights and autonomy.<sup>20</sup> This is because risk scoring relies on data that reflects systemic inequalities in the child welfare system. In the United States, for example, parents with disabilities experience child removal rates that are 40% to 80% higher than parents without disability.<sup>21</sup> Algorithmic risk scoring, despite its outward appearance of neutrality regarding social indicators, reproduces a troubling trend of assessing parental capacity based on indicators of physical and mental "fitness."<sup>22</sup>

Concerned by the documented issues linked to algorithmic risk scoring in child welfare, the ACLU sought data and records from Allegheny County, pertaining to the AFST. Collaborating with researchers from the Human Rights Data Analysis Group, the ACLU aimed to independently assess both its design and societal impacts. ACLU researchers made a number of significant findings. They verified concerns that the AFST leads to racial disparities in screen-in rates, showing potential inequities between Black and non-Black families. In addition, it found that households containing people with disability might be categorised as having a higher level of risk compared to those without. This is due to the way data about disability is factored into the risk scoring algorithm. Researchers specifically focused

on three disability-related features in the AFST: an indicator for the “victim child’s” behavioural health history, an indicator for the alleged “perpetrator’s” behavioural health history, and the time (number of days) since a parent with behavioural health history was last in contact with health services.

They found that merely being associated with a person with disability via a referral could increase a person’s risk score by several points.<sup>23</sup> Researchers identified cases where individuals exhibited identical values for all features considered by the model except for the indicator variable regarding whether the alleged perpetrator had a history of behavioural health intervention. In these instances, individuals with the behavioural health indicator scored 0-3 points higher than their counterparts without this indicator.

Although the risk score alone doesn’t determine what happens in a case, it does place ‘high risk’ individuals under greater scrutiny and elevates the chances of their child being removed from their care.

Following media coverage of the ACLU’s research findings, the US Justice Department initiated an investigation into potential discrimination by the AFST against people with disabilities and other protected groups. Multiple civil rights complaints, including those from parents with intellectual disabilities seeking the return of their children from foster care, have been filed against the AFST. Allegheny County has reportedly made several “updates” to the AFST algorithm and “has sometimes removed disabilities-related data points”.<sup>24</sup>

**Discursive framings and the construction of “imaginaries”** also plays an important role in critiquing unjust algorithms. For Jessop, “[i]maginaries are semiotic systems that frame individual subjects’ lived experience of an inordinately complex world”.<sup>25</sup> In helping people make sense of the social world, imaginaries durably shape it, in so far as they motivate action consistent with shared visions and values.<sup>26</sup> Social movements can be critical here in harnessing the power of collectively held visions and imaginaries of the future, both positive and negative, and transforming it into political action.<sup>27</sup> The example in case study 3, concerning robo-planning, highlights the role imaginaries play in mobilising civil society, “serving the purpose of making publics... rallying groups of people and marshalling resources”.<sup>28</sup>

While some imaginaries engage people’s expectations, hopes and dreams of future

technological progress, others have a more dystopian flavour. These imaginaries are better understood as imaginaries of resistance, counter-imaginaries<sup>29</sup> or counter-hegemonic imaginaries.<sup>30</sup> They may co-exist alongside dominant imaginaries of innovation but by definition lack the elite patronage, scale, and influence of imaginaries through which states project their power.<sup>31</sup> Counter-imaginaries serve a different purpose. They engage “affective reactions and resistances... against specific technical objects, specific actors, specific organisations but also against technological solutionism, against algorithmic power and logics, against the closing off of possible futures, against injustice”.<sup>32</sup> In short, counter-imaginaries contest unjust design and uses of technology, mobilising collective efforts to address perceived threats and values at stake.



Australian disability advocates Stacy Rheese, Craig Wallace, Kat Reed and Bec Cody positioned outside Federal Parliament House

## Case study 3: #RoboPlanning

Australian disability activists strategically employed language to shed light on issues with RoboNDIS (see case study 1), drawing parallels with the problematic robodebt scheme. In 2021, the Morrison government's attempt to implement a new assessment method for NDIS services, termed 'RoboPlanning' by former NDIS Minister Shorten, faced criticism for relying on "flawed mathematical formulas".<sup>35</sup> Disability activists repurposed the term 'roboplanning' as shorthand for the adverse impacts of algorithmic decision-making for disabled people. The term gained currency within disability and policy circles and circulated more widely in the mainstream media and on social media, reappearing in hashtags such as #RoboNDIS.

The term 'roboplanning' directly alludes to the controversial robodebt episode, described as a "shameful chapter for public administration in Australia".<sup>36</sup> Robodebt carried such a strong negative connotation for those familiar with the issue that the mere association was enough to stoke concerns, if not outright fear, over the proposed model of algorithmic assessment. Such was its impact that in 2019, the term robodebt was voted via a public opinion poll Macquarie Dictionary word of the year, prompting one commentator to conclude "robodebt is perhaps not the most exciting word, but one that affected a lot of people".<sup>37</sup> Media reports at the time noted the "lasting productivity of the 'robo-' prefix" in public discourse.<sup>38</sup>

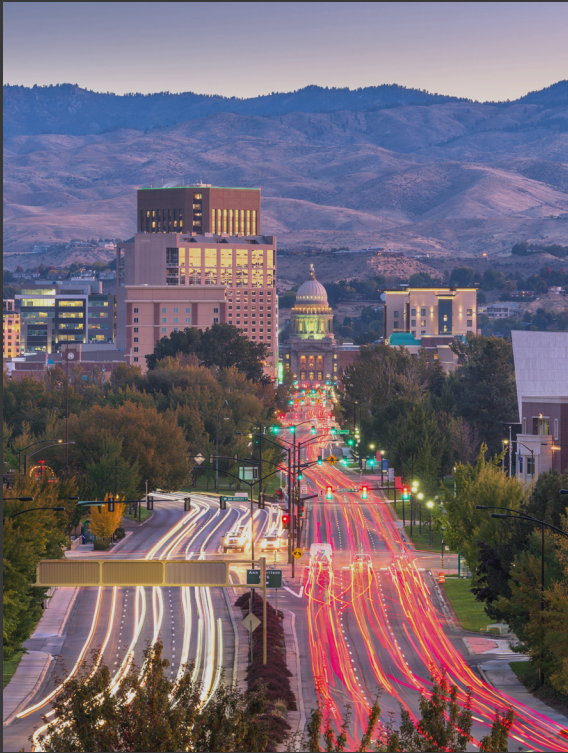
Finally, the potential for **legal mobilisations** to address algorithmic discrimination, particularly in the context of disability, is gaining prominence. Advocates and legal experts argue that algorithmic systems, if leading to discriminatory outcomes against people with disability, may run afoul of existing anti-discrimination legislation and other areas of public law including administrative law. So far, challenges have centred on contesting the opacity of algorithmic decision-making processes and the lack of adherence to proper procedures (see case studies 4 and 5). In a legal case in the United States, lawyers providing legal aid to people with disability whose access to Medicaid-funded care was curtailed by an ADM system argued that the state's failure to follow established administrative procedures in implementing substantial policy changes amounted to a violation of procedural fairness (see case study 6). A different legal challenge, this one in the United Kingdom, is seeking a judicial review of how the Department of Work and Pensions uses predictive analytics to identify disabled people for fraud investigation (see case study 7). The Greater Manchester Coalition of Disabled People (GMCDP) is leading the challenge in partnership with the non-profit legal NGO Foxglove. GMCDP say "the case is a lynchpin of a whole bunch of other activity about algorithmic justice and transparency".<sup>33</sup>

Yet another legal challenge, a class action in Australia, was brought against the Australian Government for its failed attempt to identify overpayments of social security benefits through data matching. The automated data-matching initiative, known as 'Robodebt,' disproportionately affected people with disabilities, as more than half of those receiving unemployment benefits

in Australia have a disability. Disability and digital activists played a pivotal role in raising awareness about the issues associated with Robodebt, contributing to advocacy efforts that culminated in a Royal Commission and a subsequent class action.<sup>34</sup> As a resolution to the legal proceedings, the Australian Government announced a \$1.2 billion settlement, recognising the serious failures of the program.

Legal mobilisations such as those described above have the potential to influence the legal landscape, but they are not without limitations. They primarily focus on rectifying harm after it has occurred, providing justice on an individual basis without necessarily addressing deeper cultural and political questions. They often fall short in tackling broader patterns of social inequality perpetuated by negative stereotypes and governments' punitive treatment of people on welfare.

Despite these shortcomings, legal efforts play a crucial role in civil society and social movement responses to algorithmic harm. To effectively tackle the systemic challenges associated with automated government decision making, an expansive strategy involving legislative reform, public awareness initiatives, and community engagement is essential. Through the integration of legal initiatives with broader grassroots mobilisations, there is an opportunity to not only tackle immediate issues but also to lay the groundwork for lasting positive change.



## Case study 4: Challenging systemic denials of due process

The Idaho Developmental Disabilities Waiver is a Medicaid program that provides support to people aged 18 or older with autism, developmental disabilities, or intellectual disabilities, with the aim to facilitate community participation and independence. Under the program, individuals receive an annual budget that sets a limit on the expenses authorised for that person.

The budget is calculated through an ADM system based on inputs from third party contractors called Independent Assessment Providers (IAPs), who conduct assessments on behalf of the Idaho Department of Health & Welfare. The IAPs visit with participants to assess their needs, completing an “Inventory of Individual Needs” form,

which details the impact of disability on various aspects of the person’s life. The IAP manually fills out the Inventory, transferring the data to an Individualised Budget Calculation (IBC) computer form. The IBC, aligned with different categories of need, automatically calculates the Medicaid entitlement based on the IAP’s descriptions.<sup>39</sup>

Upon completing the IBC, the ADM system generates a Notice which gets sent to the individual, along with the IBC and Inventory. It was this notice that was the subject of a legal challenge initiated by a group of adults with developmental disability.<sup>40</sup> When their Medicaid payments were reduced, they brought this action against the Idaho Department of Health & Welfare (IDHW), alleging, among other things, that the notices sent by IDHW informing them of the reductions were insufficient. The Court held that the Notice failed to provide due process because it did not explain budget reductions. The Notice made it very difficult for a participant to determine why their budget had been reduced and left them unable to effectively challenge the decision.

The Court prohibited the reductions, and over time, the parties reached a consensus on the terms of a preliminary injunction. This injunction preserved the operation of the ADM system but provided plaintiffs with details about their budget reductions. That injunction restored the Plaintiffs’ budgets to the levels they were at prior to July 1, 2011 when the IDHW had sent the unconstitutional budget notices. The injunction also prohibited IDHW from reducing Plaintiffs budgets until it (1) provided Plaintiffs with notices, approved by the Court, and (2) made available for copying specified documents it used to calculate Plaintiffs’ budgets.



## Compounding harm

The concept of compounding harm surfaced during the workshop discussion. Participants shared their experiences of enduring multiple traumas that compounded due to numerous interactions with various government agencies over extended periods. The discussion highlighted how various government agencies independently implement algorithms or use large datasets, often also exchanging information to form larger 'linked up' datasets. In Australia for example, various government agencies, including the Department Human Services, the National Disability Insurance Agency, the Department of Home Affairs, and Services Australia (the central welfare agency) all implement algorithms independently, each thinking they are assisting by adding flags or labels related to disability and vulnerability. The cumulative effect of these actions was described as potentially harmful, as individuals accumulate multiple identifiers and flags in their records across different agencies. This compounding effect leads to increased scrutiny and interference in the lives of citizens, especially those with backgrounds marked by racial, gender, and economic marginalisation. People with intersecting risk and vulnerability markers experience compounding harm because of their extensive engagement with a variety of health and welfare systems.

Two speakers in particular highlighted concerns about the cumulative impact of interconnected data and algorithmic systems spanning various jurisdictions, policy domains, and levels of government:

*For the population that is subject to these algorithms, there must be some broader consideration of other impacts on the same population at the state level and in other organisations because it's the*

*additive impact that is really just unknown at the moment (Marie Johnson).*

*The thing I want to go back to [is that] the harm is additive. And by that I mean is that it's not just the Department of Human Services. It's that every agency that you encounter, as somebody with disability, thinks that they're doing something fabulously intelligent and clever by implementing algorithms or big datasets or nudge tactics or biometrics.*

*Your local state Department of Families, Fairness and Housing, thinks that "Hey, we could help people, we could flag them if they've got a disability and offer them a bit more help." And suddenly a red flag goes up in your file and then the next service that you come in contact with, whether it's the Health department, says, "Hey, they've got a disability and they've got kids. Maybe we'll put another flag in their file." And suddenly you've got two flags in your file. And you roll on to the next department, Services Australia, and suddenly you've got three flags in your file because they've said that you're vulnerable and you've got a Robodebt. And suddenly Child Services looks over at you and goes, "Hmm" (Asher Wolf)*



## Case study 5: Legal battle over Medicaid support

In a 2015 case similar to the one outlined in case study 4, a group of Medicaid recipients of services for intellectually and developmentally disabled people took legal action against the West Virginia (United States) Department of Health and Human Resources (DHHR). They claimed that the DHHR wasn't following its legal requirements in deciding how much support they should get through the so-called Intellectual and/or Developmental Disabilities Waiver program, which supports people to live in their communities instead of institutions. Specifically, the legal dispute revolved around the rejection of funding requests for services that exceeded the individuals' allocated budgets. These

budgetary allocations were calculated by a third-party contractor using a proprietary algorithm.

The case was heard in the West Virginia district court, and in 2016, the judge ruled in favour of the group. The court ruled they had sufficient claims that these denials resulted in violations of due process. The judge allowed the individuals to get their benefits back while the case was ongoing. However, in 2018, the judge dismissed most of the case because the DHHR had made significant changes to its system, and the case was no longer considered relevant. The following year, the individuals pursued compensation for their legal expenses, but they eventually resolved this privately with the DHHR. The case was then dismissed for good.

### Administrative violence

Administrative violence refers to the use of seemingly benign administrative and information processes to oppress the less powerful. In his conceptualisation of the term, Dan Spade underscores how administrative systems, including those powered by data analytics, actively shape identities and categories, presenting them as "natural." These classifications extend beyond mere representations, shaping individuals' relationships with institutions, influencing self-perception, and serving as a basis for the application of various state actions. For author and AI critic Dan McQuillan, this means that

"when thinking about the broader impacts of AI and its associated datasets, it's not sufficient to question the way it might be misrepresenting of our authentic selves, but to realize that it will act to reconstruct us as a particular subject that it will then act upon".<sup>41</sup> This primer features stories of the state engaging in violent actions such as the separation of children from parents and the withholding of crucial disability and healthcare support. These concrete examples serve as a stark reminder that the dangers posed by administrative violence facilitated by technology extend beyond theoretical considerations to pose genuine threats to lives and well-being.

## Social sorting

The term “social sorting” refers to the way in which information about individuals is collected, processed, and used to categorise and classify people into various groups. This categorisation has important social, political, and economic implications.

The idea of social sorting highlights how sorting technologies enable powerful institutions, such as governments and corporations, to categorise and target individuals based on their characteristics and behaviours. This can lead to social stratification, where individuals are treated differently or granted different opportunities based on their assigned categories.

As Soldatić and Fitts note, when applied to disability, algorithmic classification systems facilitate “the filtering, ordering and sorting of bodies and minds into various classes”.<sup>42</sup> This sorting process has a long history in

welfare state decision making, dating back to the time of the English poor laws.<sup>43</sup> During this period, public and religious authorities developed complex ways of classifying people based on type and severity of impairment, to determine where they would be housed. Only relatively recently have these processes been automated, and categories of disability and deservingness have been encoded in algorithms.<sup>44</sup> These coded categories, Lyon suggests, act as “invisible doors that permit access to or exclude from participation in a multitude of events, experiences, and processes”.<sup>45</sup> The automation of social stratification has emerged as a driving force for disability movements to engage in forms of algorithmic activism (see case study 1).

## Case study 6: Advocating for Fair Home Care Allocation in Arkansas

In the workshop, Kevin de Liban, the Director of Advocacy at Legal Aid of Arkansas, spoke to us about a case concerning disagreements over budget reductions made through Arkansas’s ADM system for allocating home care support. The home care program had been in place for about 20 years, with a maximum of eight hours of care per day.

In 2016, the state shifted to an algorithmic determination based on 286 questions, resulting in significantly reduced care hours for some people:

*“So, for example, somebody with cerebral palsy, who previously had gotten eight hours a day of care was now very likely to get four, four and a half hours a day of care, maybe five. So people were suffering unspeakably here, folks lying in their waste, people getting bedsores from not being able to be turned, people being totally shut in and having no access to outside community, missing doctor’s appointments, missing physical therapy, these sorts of things. So it was just unspeakable harms”.*

**Legal Aid of Arkansas pursued legal action:**

*....our strategy was to help as many people as we could, individually fight those decisions through kind of an administrative fair hearing process and in many of those, we were not successful. At the same time, we launched affirmative litigation to try to get rid of the whole system.*

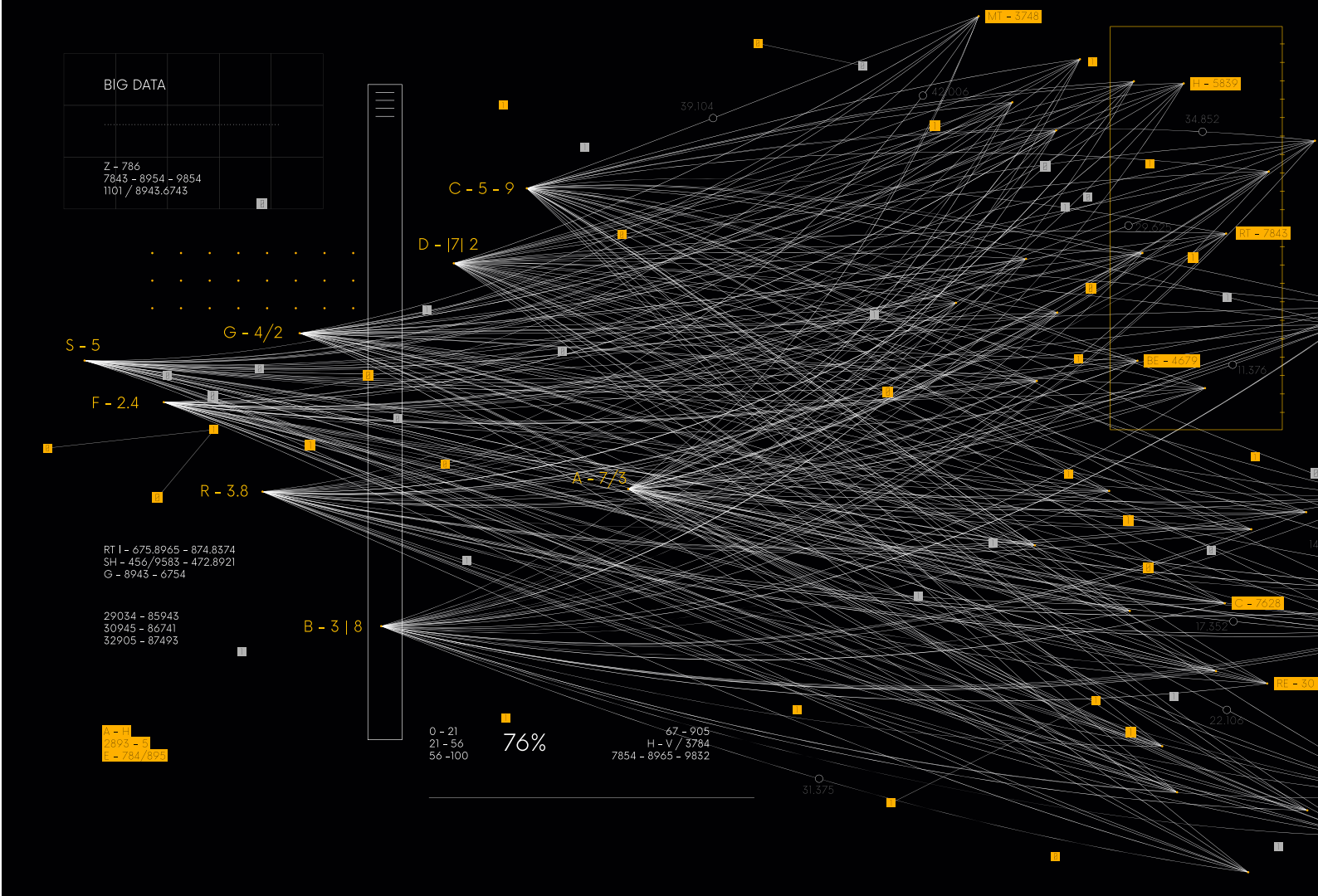
The litigation unfolded in two stages. Initially, a federal lawsuit was pursued on the grounds of due process, asserting people's right to personalised notice explaining the reasons for cuts in care hours and the evidence required to challenge them. The court ruled in favour of the plaintiffs, forcing the state to halt all reductions or terminations until they rectified the notice, benefiting several thousand individuals for months. Kevin de Liban:

*....they didn't fix the notice to what I thought was adequate but they fixed the notice to what they thought was adequate and then started terminating people again. [They] were totally unwilling to consider abandoning the program or making it more fair... So then we launched a state based lawsuit under our Administrative Procedures Act, saying that the state failed to follow public notice rules in adopting this algorithm to make these decisions. We were successful there, which invalidated the whole thing, put all cuts on pause. ... [Eventually] the state replaced that system with another system, which has its own set of winners and losers and other problems, which we've also been challenging.*

**Kevin also spoke about the importance of pairing legal advocacy with grassroots political organising:**

*At the same time [as these legal mobilisations], and this is really important, we had been working to make sure that people affected by the algorithms understood what was going on and understood some of the public policy issues and were able to organise amongst themselves to exert some political pressure. ... So that was the other key piece of the strategy is that folks came out to public hearings, legislative hearings, and managed to win a political victory as well with ultimately the state legislature saying, "Look, this is not a long term solution for us", telling the state agency, "You have to change to a different system." [It was] the ideal mix of litigation to stop something bad along with sort of political mobilisation to make sure that our court victories couldn't be rolled back.*





### Disability Datafication

The automation of government functions is made possible by ubiquitous processes of datafication. Datafication is the process of converting various aspects of the physical world, human activities, and information into digital data or structured datasets. This involves collecting, organising, and analysing data from a wide range of sources, including sensors, devices, and human interactions, to make it suitable for digital storage, processing, and interpretation. Datafication plays a pivotal role in enabling data-driven decision making across various government domains, such as immigration and visa processing, resource allocation, policing, social services, and healthcare.

During the workshop, participants voiced concerns about the datafication of disability. In this context, disability datafication

refers to the systematic extraction, digital transformation, and analysis of disability and health-related data for governance purposes. These data encompass a wide range of information, from diagnostic and medical records to details about daily life activities, interactions with social services, and family-related and demographic data. Although disability data has the potential to be used in constructive ways to improve and inform services, there are concerns regarding its use by governments for surveillance, exerting control over the lives of people with disabilities, and potentially restricting their access to resources. This is particularly relevant for people reliant on disability benefits and other forms of income support.

One of the workshop speakers, Kevin de Liban, highlighted how societal attitudes toward disability contribute to the datafication of disabled people's lives. Much of the discourse surrounding "welfare cheats," "fraudsters," and "dole bludgers", for example, is rooted in a general distrust of people receiving welfare benefits. This mistrust assumes that people deceitfully claim disability status to exploit the benefits and exemptions it offers, which is closely tied to societal norms and expectations around work. Kevin de Liban:

*[because there is] this default expectation of all work all the time... disability is viewed with intense scepticism. The onus is always on the disabled person to convince the world that their disability is real and that any work-related limitations that come out of that are significant. So there's just*

*this inherent scepticism around disability and that invites datafication of disabled people's lives. It also includes a lot of perverse logic to undermine resistance. So we're going to surveil your life, we're going to make you prove to us that you're really disabled and we're going to do it through sort of automated means or increasingly automated means and if you don't like it, well what do you have to hide? Are you still really disabled? Or are you as disabled as other people who truly need the benefits as opposed to you, who's just shirking the responsibility. ... you just have this intense data regime around surveillance, enforcement of program rules and all of this stuff that is I think a little more intense in the disability world. Or it's of a different nature in the disability world than in some other contexts.*

. . . . .

HEALTH ASSESSMENT ADVISORY SERVICE

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THIS IS WHEN  
MY NIGHTMARE  
BEGAN

Mr ROY CURTIS  
46 LEXHAM ROAD  
ASHLAND  
MILTON KEYNES  
MK6 4AQ

Office address: CROYDON  
CENTRE FOR HEALTH AND  
DISABILITY ASSESSMENTS  
STEPHENSON HOUSE 2 CHERRY  
ORCHARD ROAD  
CROYDON  
SURREY  
CR0 6BA

Telephone: 0345 608 8545  
Textphone: 0345 608 8551  
Reference: JP683080A  
Date: 12th December 2016

**Capability for Work Questionnaire**

Dear Mr CURTIS,

A letter from the Health Assessment Advisory Service addressed to UK resident Mr Curtis, with the phrase 'this is when my nightmare began' written over it in red marker, expressing Mr Curtis's distress regarding the capability for work assessment.

## Case study 7: Disabled people unite against algorithmic targeting

In this case, the Greater Manchester Coalition of Disabled People (GMCDP), together with Foxglove Legal, is pursuing a judicial review of the Department for Work and Pensions in the United Kingdom over their suspected use of algorithms in targeting disability benefit recipients for fraud investigations. During the workshop, Rick Burgess, the GMCDP's outreach development and campaigns lead, shared insights into what initially raised suspicions about the DWP's approach and the mobilisation that followed:

*"this weird pattern of fraud investigations and compliance was happening. I'd been investigated twice, virtually everyone I know has been investigated once or twice or three times. Comes to nothing, we're not fraudsters. I guess most of us assumed, well, I don't know, bad luck or maybe it was a phone call to the tip line. But then the possibility that this might be an automated system began to sort of become a possibility..."*

This possibility was confirmed in a report by Privacy International, which undertook a study based on Freedom of Information requests filed to the DWP.<sup>46</sup> The study revealed that the DWP uses a data matching program known as the General Matching Service to identify disparities between the data in their records and the information related to the customers' cases, and that this ADM system relies on an extensive surveillance of benefits claimants suspected of fraud.<sup>47</sup> During the workshop, Foxglove's outreach lead, Michaela Chen, informed

us that "we know from its effect it appears to disproportionately challenge disabled people for these traumatic and aggressive investigations".

Similar to Legal Aid of Arkansas (see case study 6), the GMCDP combined their legal efforts with advocacy actions directed at politicians:

*....there's an arm's length branch of the DWP that take care of technology. A few years ago we occupied the foyer of their office building and demanded they come down and answer us. They called the police and the police said, "What are you doing?" and we said, "We want to ask them some questions" and they said, "That seems fair enough. All right. Ask them down." So sometimes the police are OK, not always! (Rick Burgess, GMCDP).*

GMCDP's efforts to seek judicial review are ongoing. GMCDP's objective is to compel the DWP to answer questions and disclose if their computer systems target disabled people for fraud investigations. The Judicial Review requires legal expertise and funding, with Foxglove Legal contributing to legal support. Rich Burgess:

*....we're a disabled people's organisation that's 100% run and staffed by disabled people, working under the social model and there's not a lot of us around at the moment. After 15 years of austerity, that has really devastated the sector. So we're all now running kind of on fumes, over capacity and we don't have on call legal expertise just sitting around, ready to help us on these things. So organisations like Foxglove existing are vital so that our organisations can team up with well-meaning experts and start to take these challenges at a level that's going to have an effect and get their attention.*

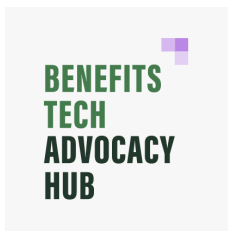
## 04. FURTHER RESOURCES



### **Resist and Reboot.**

A podcast looking at the intersection of community building/organising and data governance.

[globaldatajustice.org/gdj/category/podcast](https://globaldatajustice.org/gdj/category/podcast)



### **The benefits tech advocacy hub.**

A community of battle-tested advocates who fight algorithm-based and technology-enabled cuts to public benefits and foster collective efforts to promote public benefits systems that meet people's basic needs.

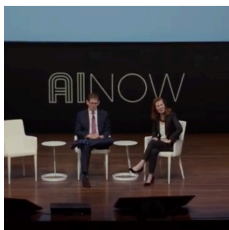
[btah.org](https://btah.org)



### **Data Work in Grassroots Community Organizing for Disability Justice.**

A project about the sociotechnical challenges that arise from the design and use of data-intensive methods for advocacy purposes.

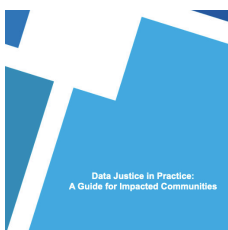
[digitalfutures.kth.se/research/postdoc-fellowships/data-work-in-grassroots-community-organizing-for-disability-justice](https://digitalfutures.kth.se/research/postdoc-fellowships/data-work-in-grassroots-community-organizing-for-disability-justice)



### **A discussion with lawyer and advocate Kevin De Liban on leading the court case against a flawed Arkansas state Medicaid algorithm.**

Kevin De Liban, Legal Aid of Arkansas In conversation with Kate Crawford, AI Now Institute.

[youtube.com/watch?v=SdmNzIMtjWo](https://youtube.com/watch?v=SdmNzIMtjWo)

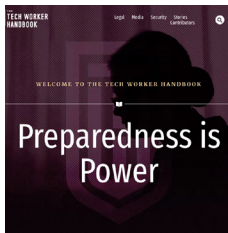


### **Report: Data Justice in Practice: A Guide for Impacted Communities.**

Provides practical guidance to support communities to engage with data justice in relation to data, technologies, and digital infrastructures in their communities.

[gpai.ai/projects/data-governance/data-justice-in-practice-a-guide-for-impacted-communities.pdf](https://gpai.ai/projects/data-governance/data-justice-in-practice-a-guide-for-impacted-communities.pdf)

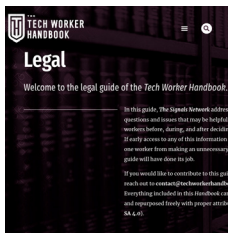




## The tech worker handbook.

Aims to help sources — specifically, workers at tech companies — understand what it means to bring a story to the media. It outlines what potential whistleblowers can expect when speaking to a reporter, how to protect themselves when bringing information to the press, and much more.

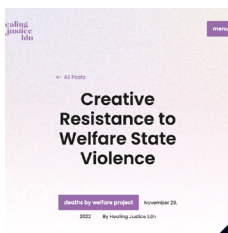
[techworkerhandbook.org/media](https://techworkerhandbook.org/media)



## Legal guide for tech workers.

In this guide, The Signals Network addresses legal questions and issues that may be helpful to tech workers before, during, and after deciding to speak out.

[techworkerhandbook.org/legal](https://techworkerhandbook.org/legal)



## Project led by By Healing Justice Ldn: Creative Resistance to Welfare State Violence.

Healing Justice Ldn (HJL) work on a community, structural and movement level to repair and build the conditions for health and healing justice that dignify and support all of us to be well.

[healingjusticeldn.org/2022/11/29/creative-resistance-to-welfare-state-violence](https://healingjusticeldn.org/2022/11/29/creative-resistance-to-welfare-state-violence)



## Report: Computer says 'no!' – stage one: information provision.

Published by the Child Poverty Action Group. This report presents case studies and analysis from CPAG's Early Warning System to highlight problems with the information provided to people claiming universal credit (United Kingdom).

[cpag.org.uk/news/computer-says-no-stage-one-information-provision](https://cpag.org.uk/news/computer-says-no-stage-one-information-provision)



## Report: Computer says 'no!' – stage two: challenging decisions.

Published by the Child Poverty Action Group. The second in this series, this report looks at problems with understanding decisions, challenging errors and protecting the rights of people claiming universal credit (United Kingdom).

[cpag.org.uk/news/computer-says-no-stage-two-challenging-decisions](https://cpag.org.uk/news/computer-says-no-stage-two-challenging-decisions)

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# APPENDIX 1: WORKSHOP OUTLINE

## Recognising, Resisting, and Reorienting Algorithmic Systems for Disability Justice

Session Date: Thurs. 29 June 2023

Time: 9:00-11:00 BST/18:00-20:00 AEST

Format: Zoom meeting (link to be shared via e-mail closer to event date)

### Workshop Overview:

This workshop engages with disability and disablement in relation to the growing impact of data analytics and algorithmic decision-making in the public sector. Governments are increasingly adopting data-driven, automated systems to detect benefit fraud, plan disability support, and determine eligibility for disability benefits and services. These automated decision-making (ADM) systems raise pressing concerns for disabled people globally. Despite their profound impacts on disabled lives and life chances, ADM systems are often designed without the input of people with lived experience of disability, for purposes that do not align with the goals of full rights, participation, and justice for disabled people.

The workshop brings together lived experience, advocate perspectives, legal expertise, and academic analysis in discussion of the problems and potentialities that ADM poses for disabled people. We will explore the various dynamics that put people with disability at a high risk of algorithmic harm. A series of short presentations will examine how digital data is used to measure and classify disability for administrative purposes, instances of prejudice and unfair treatment, and the ways ableism is embedded in ADM systems. Then, workshop participants will engage in an interactive group activity. This will involve discussing strategies to ensure government bureaucracies are held accountable for algorithmic harms, as well as exploring methods to resist and reorient algorithmic systems toward the goals of disability justice. This event will be empowering and educational!

### About the Workshop

The Recognising, Resisting, and Reorienting Algorithmic Systems for Disability Justice workshop is a collaboration between the Data Justice Lab at Cardiff University, the Australian Research Council Centre of Excellence for Automated Decision Making and Society (ADMS+S), and the Disability Innovation Institute at the University of New South Wales. The workshop expands on previous research at ADM+S, focusing on how disabled people and their representative organisations have effectively resisted the Australian government's efforts to automate assessments for disability support. Similar struggles against algorithmic disability discrimination in the UK suggests there are opportunities for peer learning and dialogue. The workshop therefore addresses the need for greater knowledge, resources, and international collaboration to advance disability-led interventions in the governance and political discourse surrounding public sector ADM.

## Featured speakers:



### **Rick Burgess (he/him)**

Rick Burgess is Outreach, Development & Campaigns Lead at the Greater Manchester Coalition of Disabled People (GMCDP).

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### **Michaela Chen (she/her)**

Michaela Chen is a Lawyer and Outreach Lead at Foxglove. She works with vulnerable people to support and build challenges against systemic injustice in technology, including in the UK, US, Europe and Kenya.

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### **Asher Wolf (they/them)**

Asher Wolf is an award-winning freelance journalist and information activist. They are a lead organiser with the Australian grass-roots campaign #NotMyDebt, which aims to reform automated data-matching practices and debt creation by Australian government departments.

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### **Marie Johnson (she/her)**

Marie Johnson is an eminent global award-winning digital authority, international speaker, author, and commentator on artificial intelligence, human rights, technology, e-health, cyber, identity, ethics, and innovation.

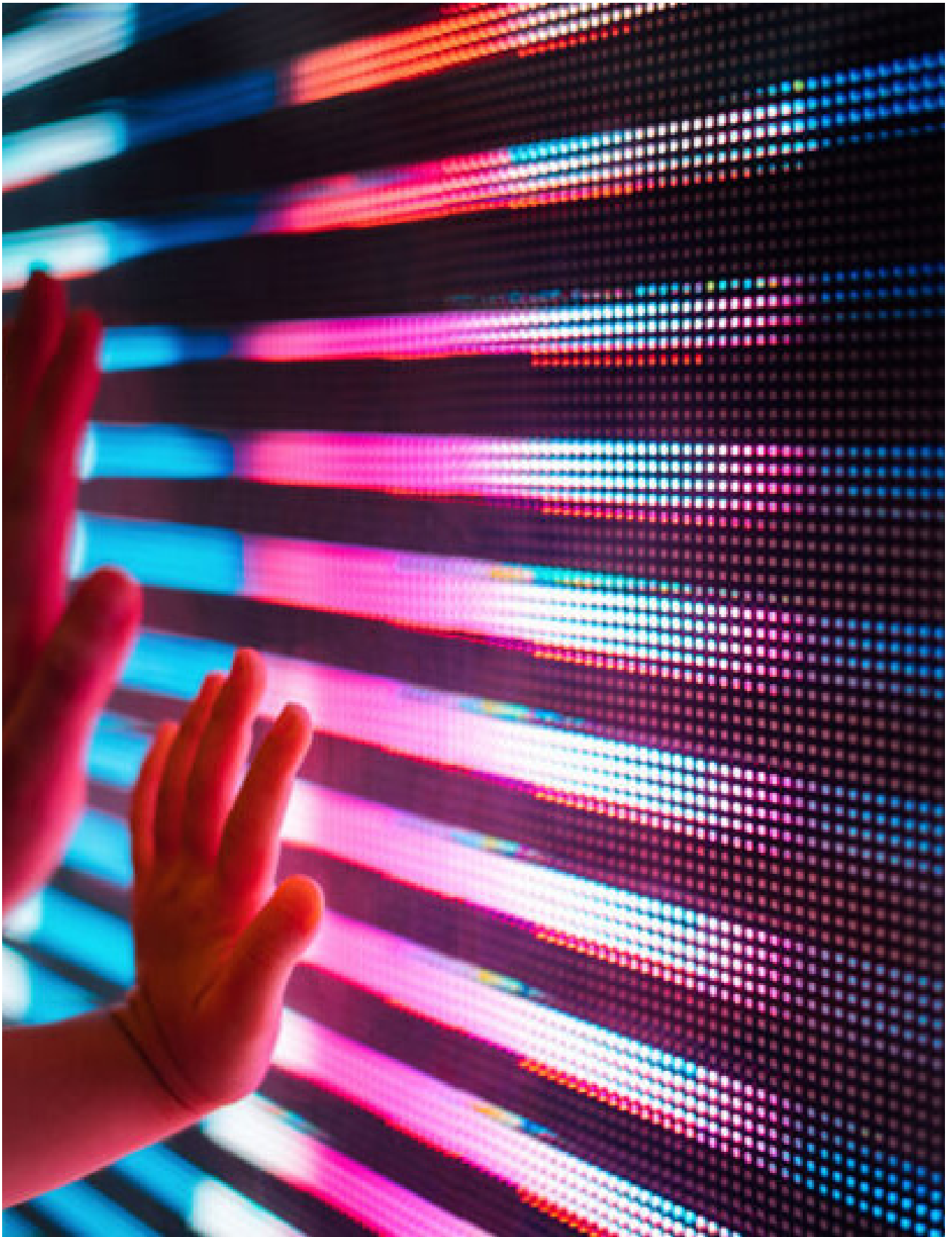
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### **Kevin De Liban (he/him)**

Kevin De Liban is the Director of Advocacy at Legal Aid of Arkansas, nurturing multi-dimensional efforts to improve the lives of low-income Arkansans in matters of health, workers' rights, safety net benefits, housing, consumer rights, and domestic violence.

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