



Department of  
**Media and  
Communications**

# Between Antidiscrimination and Data: Understanding Human Rights Discourse on Automated Discrimination in Europe



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# Executive Summary

For the past several years, data-driven technologies have been a transformative force in society. Governments and businesses adopting these automated systems for various purposes extol their virtues, highlighting efficiency, standardization, and resource optimization as their benefits. But many scholars and advocates highlight data-driven technologies' transparency and accountability problems and warn against systems' ability to discriminate in less obvious or detectable ways. This new form of "high-tech" discrimination—or automated discrimination—threatens to disproportionately impact society's most vulnerable communities living at the intersection of economic and social marginalization.

Set against the backdrop of the General Data Protection Regulation (GDPR), this report examines how the topic of automated discrimination is making its way through European civil society organizations (CSOs) working in the field of human rights. Our research aims to show how a range of human rights groups—including generalist organizations, groups addressing the rights of specific populations, as well as those addressing specific human rights, such as digital or consumer rights—make sense of data-driven technologies and confront or propose to confront their potential discriminatory impacts. Based on 30 in-depth interviews representing 28 organizations, we surface connections and disconnections between existing debates on automated discrimination and antidiscrimination, data, and inequalities, more broadly. By cataloguing practices and discourses, we can chart paths for future human rights efforts with regard to automated discrimination.

## Key findings

**Differences in values.** Our interviews reveal a wide range of values that inform whether and how CSOs work on technology-related issues, both "low tech" and "high tech." These differences include whether to view technology and the policies that govern them as main objects of concern, such as with digital rights groups, or to center on the rights and needs of specific marginalized populations. Generally speaking, privacy or digital rights groups do not articulate antidiscrimination as an important priority or frame for their work.

**Limited discourse.** CSOs have limited experience with and knowledge about automated computer systems, let alone automated discrimination. For many interviewees, data-driven discrimination relates to topics of "equality data" (e.g., data collection about members of marginalized groups for the purposes of demanding their equal rights) or "discriminatory databases" (e.g., databases that problematically or inaccurately classify members of specific marginalized populations).

**Diverse strategies and tactics.** CSOs use a variety of strategies and tactics in confronting injustices due to data collection and, in more limited instances, data-driven technologies. Depending on the context, groups rely on different rubrics or legal frameworks to accomplish their aims, including antidiscrimination, immigration, and data protection. This work is, however, affected by the complexities of specific data processes and technologies. CSOs routinely confront problems related to the opacity of certain technologies and a lack of technical, techno-legal, and data protection expertise.

**Capacity constraints.** CSOs stressed the need for additional socio-technical expertise and sought additional training, new staff, or external collaboration. Advocates also showed interest in dialogue between different communities of practice, such as digital rights, antidiscrimination, and antipoverty advocates, and cited the importance of finding new methods for understanding and detecting automated discrimination. They also identified the need to collaborate with others investigative journalists, researchers, and companies developing specific systems.

## Steps ahead

**New narratives to challenge automated discrimination.** Debate on automated technologies needs new and compelling narratives about the socio-technical problems of discrimination and social marginalization. These new narratives should connect technology to issues of social justice and build from existing human rights work, such as equality data. Affirmative framing of technology and of data can serve as a potentially powerful means to advance progressive political claims for marginalized communities. It is also important to anticipate conflicts between data privacy/digital rights advocates and those from other human rights sectors, and to support their resolution.

**Increased capacity and potential cooperation.** Understanding the different human rights implications of data-driven technologies requires new skills and methodologies, and civil society organizations that wish to work on automated discrimination need to develop additional socio-technical expertise. The complexity of automated discrimination also warrants new, strategic

partnerships, such as between tech savvy journalists and human rights advocates. Overall, potential collaborators need spaces to explore a range of socio-technical issues, fully understand their differences, and move forward with cooperation.

**Additional methods, tools, and research.** CSOs can begin challenging automated discrimination by applying non-discrimination principles in data protection frameworks. Other ways to assess the social implications of data-driven systems are also ripe for exploration, such as the use of social rights indicators to assess specific policies. More generally, there is a need for ongoing empirical research that is both qualitative and quantitative in nature and that demonstrates discriminatory impacts of automated technologies in the European context.

Altogether we see three ways to support different CSOs' engagement with the problem of automated discrimination:

Resource digital rights or data privacy advocates to recognize antidiscrimination as a key concern for data protection and undertake automated discrimination as a priority for their work;

Support anti-discrimination groups and other groups focused on equity and justice in recognizing connections between their core work and values and "high-tech" discrimination; and,

Acknowledge, cultivate, and support a flexible approach to highlighting and problem solving for automated discrimination.

# Introduction

For the past five years, debate on algorithms, artificial intelligence, and automated decision making has stoked public concern, panic, and occasional outrage. Many well-publicized stories about automated decisions in the United States, where the provision of government and commercial services increasingly relies on data-rich, real-time processing, tend to focus on privacy and problematic targeting (e.g., Target's pregnancy coupons), on the one hand, and discrimination or biased decisions (e.g., sentencing algorithms, problematic data, and problematic processing), on the other.<sup>1</sup> Researchers, policymakers, and civil rights and privacy advocates warn that without proper oversight, automated decision making will run afoul of existing transparency mechanisms and interfere with democratic processes and the ability of people to self-govern effectively.<sup>2</sup>

In Europe, where our study is situated, debate about algorithmic discrimination is both distinct from and familiar to what exists in the United States. European media and public debate rarely highlight the consequences of automated systems on marginalized communities. When they do, they often mimic the U.S. focus on so-called algorithmic racism and sexism.<sup>3</sup> One of the few exceptions concerns new data profiling tools and databases developed by the European Union and a number of member states to confront the migration crisis and strengthen anti-terrorism goals.<sup>4</sup> Meanwhile, privacy is potentially an important frame. CSOs and activists played a critical role in initiating and winning landmark cases on data privacy at the European Court of Justice and in introducing data privacy policies and laws, including the GDPR.<sup>5</sup> The GDPR has also inspired legal analysis by scholars interested in the

use of data protection frameworks to safeguard against distortions or harms of automated decisions and combat automated discrimination.<sup>6</sup>

And what about human rights advocates outside of privacy circles, especially those committed to social, racial, or economic equity? How are automated systems intersecting with their work and/or impacting their constituencies? As the fight for social, racial, and economic equity continues across Europe, to what extent are human rights defenders engaging with debates on algorithmic discrimination? Our research attempts to answer these questions by engaging directly with practitioners across different regions and areas

of specialization and inviting them to articulate their understanding and experiences. We wish to grasp how human rights organizations—or, more accurately, their representatives—make sense of data-driven discrimination so that we can uncover the potentialities and limitations of advocacy that addresses discrimination through the lens of technically complex automated systems.

This task is not an easy one. Current developments in data-rich, automated technologies are fragmented, and those outside technical circles typically lack a fluency and depth of knowledge about automation, algorithms, or artificial intelligence. As suggested above,



these limitations relate to a dearth of public discourse and media coverage. As difficult as this task may be, we consider it an important one, and in the next pages we look at how human rights organizations are talking about and working on data-related issues. Our report joins a growing body of research about data processing, automated systems, and discrimination, but from the perspective of how civil society advocates make sense of data-driven technologies.

In the next pages, we provide an overall portrait of human rights discourse and practices vis-à-vis data-driven technologies. The focus of this report is organizations operating in European Union countries. Not surprisingly, European civil society is complex, and local contexts introduce an enormous amount of

variety into how organizations work and act. These variations also pertain to organizational practices regarding data collection and use of data, let alone interactions with data-rich, automated systems or the discrimination they may engender.<sup>7</sup> Based on the strategies and priorities articulated by human rights advocates, we show a complex path ahead for European civil society in the debate on justice, equity, and computer automated technologies.

This report has seven chapters. In Chapter One, we outline a short history of the different connections between data collection, exclusion, and exploitation of particular populations. Chapter Two moves into a short overview of European civil society and provides background on our interviewees. Chapters Three,

Four, and Five discuss how our interviewees understand data-driven discrimination; how they discuss or engage in work related to automated discrimination, data protection, data governance, and discrimination, and how they connect between data, technology, and inequalities; and, what tactics and strategies define their work on data and data-driven technologies. The final chapters of this report offer reflections on the overall findings and suggest a path forward for future work combatting automated discrimination.

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<sup>1</sup>Charles Duhigg, “How Companies Learn Your Secrets,” *The New York Times*, February 12, 2012, [https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?\\_r=1&hp=&pagewanted=all](https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?_r=1&hp=&pagewanted=all); Ellora Thadaney Israni, “When an Algorithm Helps Send You to Prison,” *The New York Times*, October 26, 2017, <https://www.nytimes.com/2017/10/26/opinion/algorithm-compas-sentencing-bias.html>.

<sup>2</sup>Ben Shneiderman, “Opinion: The Dangers of Faulty, Biased, or Malicious Algorithms Requires Independent Oversight,” *Proceedings of the National Academy of Sciences of the United States of America* 113, no. 48 (2016); Cathy O’Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*, (New York: Crown, 2016); Council of Europe. Committee of Experts on Internet Intermediaries (MSI-NET), *Algorithms And Human Rights. Study on the Human Rights Dimensions of Automated Data Processing Techniques and Possible Regulatory Implications*, DGI(2017)12, (Strasbourg, 2018), <https://rm.coe.int/algorithms-and-human-rights-enrev/16807956b5>; Danielle K. Citron and Frank A. Pasquale, “The Scored Society: Due Process for Automated Predictions,” *Washington Law Review* 89, no. 1 (2014); Frank Pasquale, *The Black Box Society*, (Cambridge: Harvard University Press, 2015).

<sup>3</sup>Stephen Buranyi, “Rise of the Racist Robots—How AI is Learning All Our Worst Impulses,” *The Guardian*, August 2, 2017, <https://www.theguardian.com/inequality/2017/aug/08/rise-of-the-racist-robots-how-ai-is-learning-all-our-worst-impulses>; Morgane Tual, “L’intelligence Artificielle Reproduit Aussi le Sexisme et le Racisme des Humains,” *Le Monde*, April 15, 2017, [http://www.lemonde.fr/pixels/article/2017/04/15/quand-l-intelligence-artificielle-reproduit-le-sexisme-et-le-racisme-des-humains\\_5111646\\_4408996.html](http://www.lemonde.fr/pixels/article/2017/04/15/quand-l-intelligence-artificielle-reproduit-le-sexisme-et-le-racisme-des-humains_5111646_4408996.html).

<sup>4</sup>For example: Rachel Gessat, “Smart Borders—Europe’s New High-Tech Frontiers,” *Deutsche Welle*, June 3, 2012, <http://www.dw.com/en/smart-borders-europes-new-high-tech-frontiers/a-15995226>; Gregor P. Schmitz, “Parlamentarier Rebellieren Gegen Finger-Check,” *Der Spiegel*, October 22, 2013, <http://www.spiegel.de/netzwelt/netzpolitik/eu-parlamentarier-rebellieren-gegen-smart-borders-a-929359.html>.

<sup>5</sup>For example, Austrian activist Max Schrems, whose actions against Facebook led to a major court ruling on transatlantic data transfers: European Court of Justice, *Maximillian Schrems v Data Protection Commissioner*, C-362/14, October 6, 2015, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62014CJ0362>.

<sup>6</sup>See: Joris van Hoboken and Bojana Kostic, “The GDPR’s Potential to Address Data-Driven Discrimination: Bridging Theory and Practice in a European Context” (2018), on file with authors.

<sup>7</sup>Appendix 1 contains a detailed description of the sample and methods.

# Chapter One

## Low-tech, High-tech, and In-between: A Short History of Data, Discrimination, and Inequalities

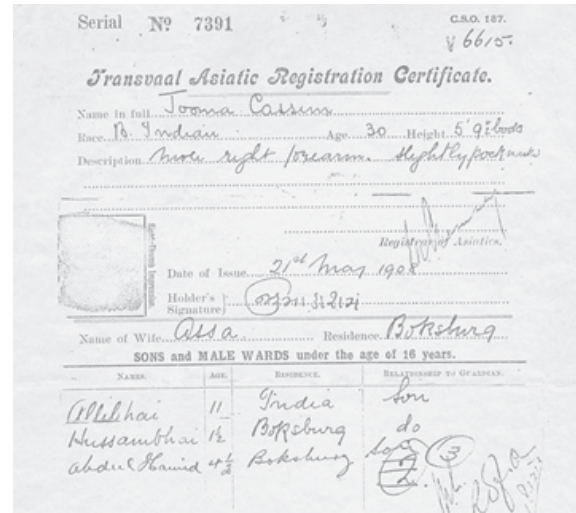
In this section, we provide a brief overview of data and inequalities. We begin with “low-tech” data collection and processing and their explicit links to human rights violations. This brief history connects to specific instances of violence against, exclusion, and exploitation of particular populations. We then move into a short description of “high-tech” or automated, data-driven systems and their corresponding problems of fairness, accountability, and transparency. “High-tech” discrimination is concerned with historically marginalized groups, though not exclusively. We finish with equality data, as a means to document, measure, and analyze the needs of marginalized populations through data collection.

### Data-based oppression

Discussions about automated computer systems often begin with an acknowledgment of the non-digital nature of automated decision making. Yet, while this history provides a useful lens into the inner-workings of large-scale institutions, efficiency—not equality—form the basis of these analog-era innovations.

Debate on the potential impact of automated computer systems on the field of human rights may find a more obvious shared ground in histories of surveillance and data extraction from historically marginalized communities.<sup>8</sup> It is here that scholars, practitioners, and policy makers find inequities and injustices behind the gloss of efficiency and bureaucratization.

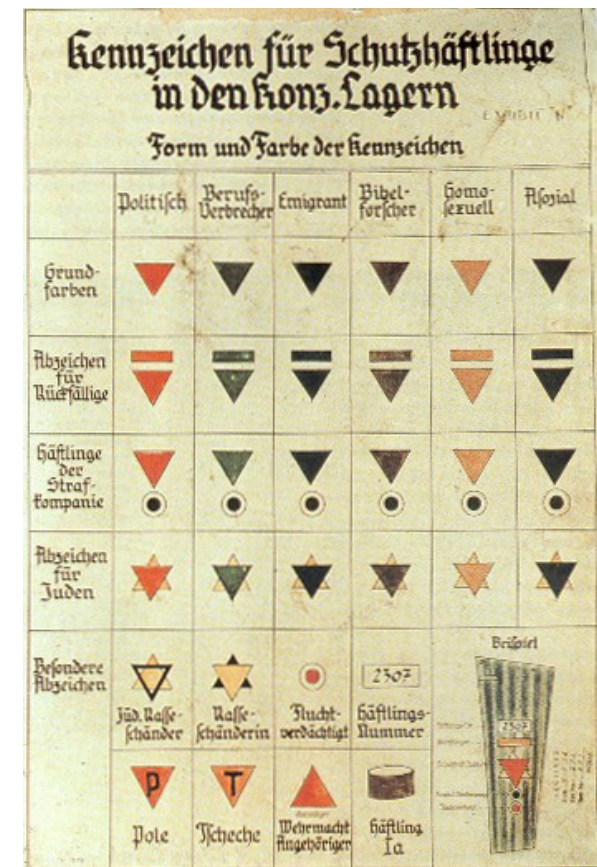
For example, over the centuries, various governments have created registers to identify “undesirable,”



The Indian pass in the Transvaal, 1908, source: [www.sahistory.org.za](http://www.sahistory.org.za)

“abnormal,” or “dangerous” individuals and populations—or in modern-day terms, members of historically marginalized groups. For example, the French Royal Decree of 1724 introduced a register of beggars, which included name, origin, age, and physical description.<sup>9</sup> In 1907, the colonial government of South Africa initiated a wide-scale project to collect fingerprints and other information from Indian males above the age of eight, with the aim of limiting immigration from then-British India.<sup>10</sup> In more recent times, governments in totalitarian as well as democratic countries have used census data to target ethnic, racial, and linguistic minorities and indigenous populations, and to commit systematic abuses like crimes against humanity, genocide, or forced migration.<sup>11</sup> The most extreme examples of those

misuses are tied to the Holocaust, the Cultural Revolution in China, Apartheid in South Africa, and genocide in Rwanda.<sup>12</sup>



Nazi camp ID-emblems, 1936 source: [www.wikipedia.org/wiki/Nazi\\_concentration\\_camp\\_badge](http://www.wikipedia.org/wiki/Nazi_concentration_camp_badge)



### Automated discrimination

While the examples above feature “low-tech” tools of oppression, today the rapid transformation in data storage, processing, and transmission is giving rise to concerns about “high-tech” injustice.<sup>13</sup> Data have become omnipresent, and some reports estimate that the volume of data worldwide, which totaled about 4.4 zettabytes in 2013, will double every two years.<sup>14</sup> Depending on the size of datasets and the speed of analysis desired, individuals and institutions employ a variety of quantitative methods to discover relationships between attributes in datasets. The volume of data and the ongoing nature of digital data collection—colloquially referred to as big data—necessitates new, complex methods of

analysis.<sup>15</sup> Various types of algorithmic models help categorize data, find correlations and patterns, and allow for automated decision making.

Differences in the character, purpose, and sophistication of algorithmic models influence the degree of automation. The range is from very simple tools to advanced artificial intelligence, which aims to supplement or altogether replace humans in decision-making processes. Altogether, systems that variously employ algorithms or use learning models are referred to as automated computer systems, data-driven systems, algorithmic systems, intelligent systems, expert systems, or automated systems.

Because many data-driven decisions intersect with people’s ability to lead the lives they desire or value, a growing discourse on the unequal effects of automated computer systems (albeit U.S.-dominated) now extends beyond the field of computer science. Scholars, advocates, policy-makers, and journalists worry that big data technologies may exacerbate existing inequalities, deepen social exclusion for historically marginalized groups, and perfect a practice of wide-scale automated discrimination.<sup>16</sup>

A sizable focus on automated discrimination attends to issues of fairness, accountability, and transparency, and this work shows the complexity of automated discrimination at the level of design, implementation, and application.<sup>17</sup> One of the easiest-to-understand examples



**Algorithms** are encoded procedures or instructions. Algorithms often use data as their main ingredient, transforming these inputs into a desired output, based on specific calculations.

**Automated systems.** Automation can be defined as the introduction of technologies into social or organizational practices, which often leads to reconfiguration and replacement of human labor. In a number of situations (e.g., an administrative decision-making process), the goal of automation is very often related to efficiency, consistency, and cost reduction. It is, however, useful to think about automation as a matter of degree. Automated systems’ functions may range from simply matching names in a database, to granting visas, to weighing hundreds of factors to determine the best candidates for a particular job.

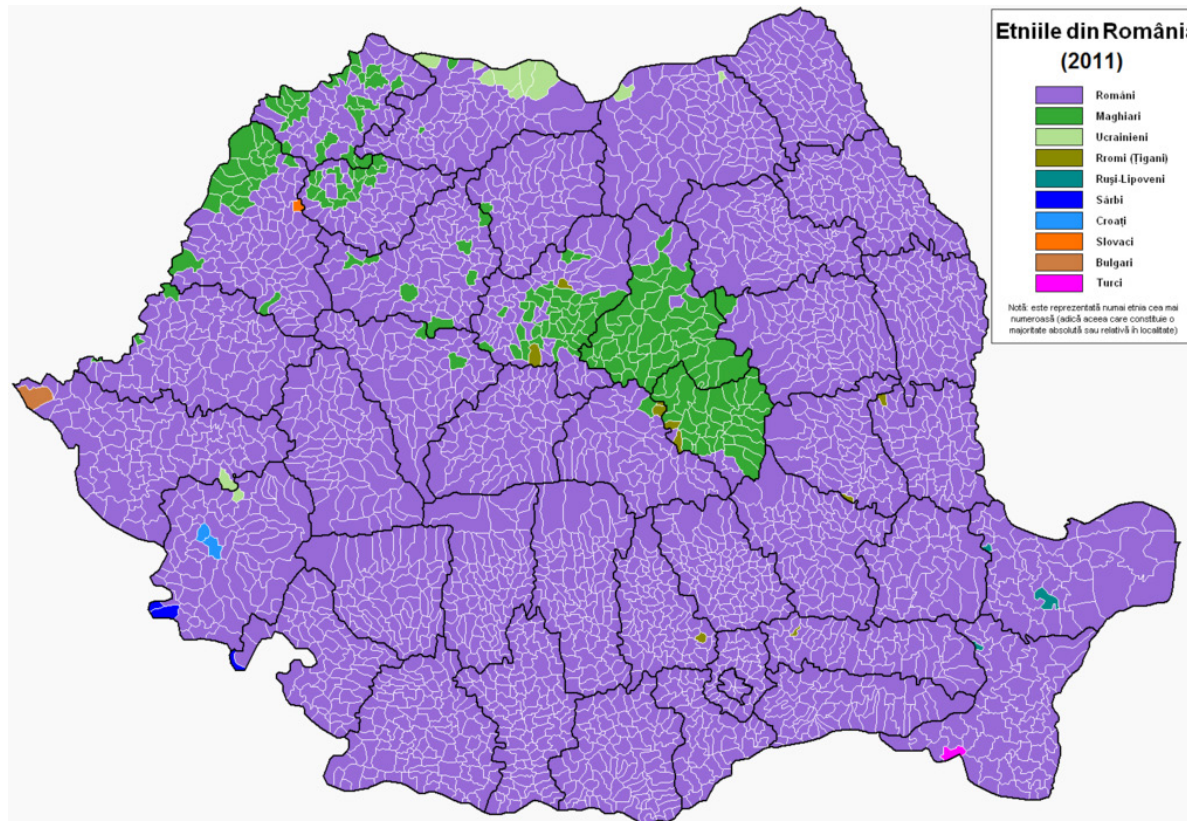
**Machine learning.** Traditionally algorithms were defined and programmed “by hand.” However, this paradigm has changed, and decision-making rules can now be defined autonomously. It is now computers that are independently detecting patterns or correlations to use as models in future processes. Machine learning systems are often described as “computers that learn by example” because of their training on data.

concerns “bad” data: unequal or unfair automated decisions may result from poorly selected data that embed historical biases. Data can be incorrect or incomplete and fail to adequately reflect social differentiation. An automated application screening system implemented by St. George’s Medical School in the United Kingdom exemplifies this problem. Modeled on previous job recruitment data, the system incorporated historical biases in analytical processes, leading to discrimination against women and people with non-European names.<sup>18</sup> As Kate Crawford points out, data is not collected “equally” from everyone.<sup>19</sup>

Another (potentially more difficult-to-grasp) problem relates to flawed algorithms or machine learning processes. On the one hand, automated systems function as black box systems. The unintelligibility of their mathematical operations make it impossible to detect problems, and people affected by such decisions (for example, those denied acceptance to medical school) will have limited opportunities to learn their causes or redress them.<sup>20</sup>

On the other, flawed algorithms or machine learning processes are tied to flawed parameters set by programmers or data scientists. Programming decisions

are judgments and reflect a vision about how the world ought to be. Decisions about error rates, for example, are not widely agreed upon, and differences over the setting of thresholds for determining an accurate misclassification has significant consequences. In a prominently discussed case of data-driven discrimination, computational decisions can make or break whether a Black criminal unfairly gets classified as likely to commit a future crime and receives a more punitive sentence than his White counterpart with the same attributes.<sup>21</sup> These decisions shed light on links between automated sentencing software and larger issues of racial justice and the criminalization of Black people in the United States.



### Equality data

Alongside “low-tech” injustice, fears for surveillance and data extraction, and concerns for “high-tech” injustice of automated systems, debate on the potential impact of automated computer systems on the field of human rights connects to the idea of equality data. Equality data can be understood as information that quantifies the state of social exclusion, marginalization, or other forms of systemic oppression and that can be used for the purposes of redressing those inequalities.<sup>22</sup>

The main focus here is on aggregation of information—attributes, behavior, opinions, values, and more—and statistical analysis thereof. This information exposes inequalities experienced by individuals or groups, their outcome, and causes. The inadequate information on discriminated groups in many cases may be seen as the “missing link” to guarantee actual equality. For example, the most recent Romanian census undercounts the actual number of Romani living in the country by an estimated one million people.<sup>23</sup> Many Roma people did not indicate their origin for fear of

Ethnic map of Romania, 2011, source: Andrein, [www.wikipedia.org/wiki/Minorities\\_of\\_Romania](http://www.wikipedia.org/wiki/Minorities_of_Romania)

stigmatization, discrimination in access to housing, employment, or social benefits, and other potential forms of targeting. However, the distorted picture of the Roma population informed authorities' public policymaking, including the allocation of appropriate budgetary resources. Comprehensive knowledge of specific groups is integral to planning, implementing, and evaluating public policies. It is also argued that closing the knowledge gap on minorities may be important for employers,

schools, or medical providers.

Human rights organizations' understanding of and experience with data and inequalities connects to the broader themes articulated above. As will become apparent in the next sections, automated discrimination or high-tech injustice alarms specialist human rights organizations, particularly those already steeped in digital rights or data privacy debates. Human rights

groups whose interests extend beyond privacy, for example, worry about data and discrimination in low-tech terms, and prediction and automation are far from top of mind.

Before outlining these differences, we provide some background on the European landscape of civil society, including details about our interviewees. This introduction furnishes the context for the differences we found amongst human rights groups, as well as the potential opportunities in European civil society.

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<sup>8</sup>Seeta P. Gangadharan, "Digital inclusion and data profiling," *First Monday* 17, no 5-7 (2012); John Gilliom, *Overseers of the Poor: Surveillance, Resistance, and the Limits of Privacy*, (Chicago: Chicago University Press, 2001).

<sup>9</sup>Kathryn Norberg, *Rich and Poor in Grenoble 1600-1814*, (Berkeley: University of California Press, 1985), 104.

<sup>10</sup>Keith Breckenridge, *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present*, (Cambridge: Cambridge University Press, 2014).

<sup>11</sup>William Seltzer and Margo Anderson, "Using Population Data Systems to Target Vulnerable Population Subgroups and Individuals: Issues and Incidents," in *Statistical Methods for Human Rights*, ed. Jana Asher, David Banks, Fritz Scheuren, (New York: Springer, 2008), 273-328.

<sup>12</sup>Ibid.

<sup>13</sup>Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, (New York: St. Martin's Press, 2017); O'Neil, *Weapons of Math Destruction*; Sara Wachter-Boettcher, *Technically Wrong: Sexist Apps, Biased Algorithms, and Other Threats of Toxic Tech* (New York, London: W. W. Norton & Co., 2017); Anna L. Hoffmann, "Data, Technology, and Gender: Thinking About (And From) Trans Lives," in *Spaces for the Future. A Companion to Philosophy of Technology* ed. Joseph C. Pitt and Ashley Shew, (New York: Routledge, 2017); Safiya U. Noble, *Algorithms of Oppression*, (New York: New York University Press, 2018).

<sup>14</sup>IDC, *The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things*, (March 2014), <https://www.emc.com/leadership/digital-universe/2014iview/executive-summary.htm>.

<sup>15</sup>David Robinson and Miranda Bogen, Upturn, *Automation and the Quantified Society*, 2017, <https://static1.squarespace.com/static/5a5e62b02aeba5a8b337504b/t/5a78cf2708522924c690d6db/1517866804085/Upturn-NetGain-Report-18.pdf>.

<sup>16</sup>Executive Office of the President, *Big Data: A Report on Algorithmic Systems, Opportunity, and Civil Rights*, (May 2016), [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/2016\\_0504\\_data\\_discrimination.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/2016_0504_data_discrimination.pdf); O'Neill, *Weapons of Math Destruction*; Seeta P. Gangadharan (ed.), *Data And Discrimination: Collected Essays* (October 2014), <https://na-production.s3.amazonaws.com/documents/data-and-discrimination.pdf>; Solon Barocas, Andrew D. Selbst, "Big Data's Disparate Impact," *California Law Review* 104, no. 671 (2016).

<sup>17</sup>The summary of ethical and political concerns related to algorithmic decision-making can be found in: John Danaher et al., "Algorithmic Governance: Developing a Research Agenda through the Power of Collective Intelligence," *Big Data and Society* 4, issue 2 (2017); Brent D. Mittelstadt et al., "The Ethics of Algorithms: Mapping the Debate," *Big Data and Society* 3, issue 2 (2016).

<sup>18</sup>Stella Lowry and Gordon Macpherson, "A Blot on the Profession," *British Medical Journal* 296, issue 657 (1988).

<sup>19</sup>Kate Crawford, "Think Again: Big Data," *Foreign Policy*, May 10, 2013, <http://foreignpolicy.com/2013/05/10/think-again-big-data>.

<sup>20</sup>Pasquale, *The Black Box Society*, 9-10.

<sup>21</sup>Julia Angwin, Jeff Larson, Surya Mattu, Lauren Kirchner, "Machine Bias," *ProPublica*, May 23, 2016, <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>.

<sup>22</sup>Timo Makkonen, European Commission. Directorate-General for Justice and Consumers, *European Handbook on Equality Data*, European Commission, (Brussels, 2016); Julie Ringelheim, "Minority Protection, Data Collection and the Right to Privacy," *European Yearbook of Minority Issues* 6/7, (2008); Aphiya Abdikeeva, European Network Against Racism, *Measure, Act, Plan - How Data Collection Can Support Racial Equality*, (Brussels, 2014), [http://enar-eu.org/IMG/pdf/20084\\_equalitydatacollectionpublication-8-low.pdf](http://enar-eu.org/IMG/pdf/20084_equalitydatacollectionpublication-8-low.pdf).

<sup>23</sup>Abdikeeva, *Measure, Act, Plan - How Data Collection Can Support Racial Equality*, 28.

# Chapter Two

## Our Interviewees: A Window into the Human Rights Field in Europe

European civil society represents a vibrant and diverse environment. In the human rights field, its actors represent a mixture of formal organizations and ad hoc collectivities. They aim to unite people with similar interests, fight for their rights, provide services like shelter, food, or education, shape public policies, and more. Scholars, policymakers, journalists, and advocates frequently remark on differences in CSOs' size, geographical focus, mission and values, and structure, and on the difficulty of measuring the scope and nature of the European human rights field. Still, a few indicators provide a snapshot. For example, the Fundamental Rights Platform (FRP) which connects with the Fundamental Rights Agency (FRA), has 542 member organizations focusing on the field of fundamental rights from all 28 EU countries.<sup>24</sup>

### Areas of interest and mission

Our interviewees reflect the distinctiveness of European civil society. We approached registered foundations and associations with a focus on human rights,

Polskie Towarzystwo Prawa Antydyskryminacyjnego, (Polish Society of Anti-Discrimination Law or PTPA) tackles the issue of antidiscrimination and specific legal issues associated with unequal treatment in various areas, such as employment, law enforcement, consumer issues, etc.

For EDRI (European Digital Rights), a European umbrella organization, its organizing values focus on so-called “digital rights,” mainly freedom of speech and privacy rights associated with the use of digital communication and various technological developments.

consumer rights, and social justice. We spoke to 30 individuals representing or working at a total of 28 European civil society organizations headquartered in nine different countries. Some organizations function as umbrella groups that coordinate members or affiliates across a diverse geography.

Our interviewees engage with human rights in a variety of ways. A number of groups have antidiscrimination at their core, whereas others focus on privacy. Some groups operate within a general human rights framework. In total, our groups fall into four main categories: a) human rights organizations which operate within general human rights framework; b) digital and consumer rights organizations; c) specific groups' advocates (e.g., organizations that advocate for the human rights of migrants, LGBTQ populations, or Roma people); and, d) anti-poverty organizations (organizations that provide services and/or advocate for specific social policies).

Our interviewees are also diverse in their orientation to audiences or constituents. While some groups target a general audience, including the “average consumer,”

other organizations defend the rights of and interface with specific marginalized groups, including Roma, LGBTQ, migrant, and other populations.

### From policy advocacy to service work

Most of our groups are focused on policy related activities, and they aim to achieve some strategic social and political change. Organizations tackle change through various means such as focusing on legislative or insitutional change, including direct lobbying, meeting with decision makers, or producing policy briefs. These activities are usually directed towards state institutions (government, local authorities), international organizations (European Union), and less often companies. Organizations also create and develop public campaigns to apply pressure—both through online and offline tools. Some of the participants target the judicial process.

A minority of our interviewees primarily provide services. They address needs of their constituencies, promote community development, and focus on social and economic justice. They offer legal advice, psychological and social assistance, and shelter to ensure the well-being of an individual or community. As one participant explained, their work is related to the assistance of migrants' daily life as well as confronting institutional and legal barriers that migrants face.

### Common practices related to technologies

For a number of our interviewees, technology has a mundane value in everyday human rights work. By and large, technology is a means to an end, not an end in itself. Several of our interviewees talked about how they use technologies for communication with activists and constituencies or develop communication strategies to

be transparent and visible with their audiences. Our interviewees discussed concerns about cybersecurity and informational privacy of their staff members, though many struggle with a lack of knowledge about the complexities of data theft, leakage, and other threats.

In this next section, we present the different ways in which organizations articulate the relationship between data, technology, and inequalities. This narrative is quite different from the language of public debate on automated discrimination.

## ORGANIZATIONAL TYPE



## GEOGRAPHICAL FOCUS



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<sup>24</sup>Fundamental Rights Agency is the EU's center of fundamental rights expertise. It is one of the EU's decentralized agencies. The Agency helps to ensure that the fundamental rights of people living in the EU are protected. The Fundamentals Right Platform is a channel for cooperation and information exchange with civil society organizations active in the field of fundamental rights at the national, grassroots, European, or international level. More: <http://fra.europa.eu/en/cooperation/civil-society/about-frp>.

# Chapter Three

## Limited Discourse: How Human Rights Organizations Understand Data-Driven Discrimination

During our interviews, we asked participants about connections between data, data-driven systems, and discrimination. A majority of our interviewees avoided or neglected topics regarding predictive analytics, risk assessment, scoring, and other forms of automated decision making and, instead, elaborated on their own interpretations of data-driven processes. The below themes allow us to understand how human rights representatives more often than not focus on data and inequalities or low-tech injustice rather than new, automated forms of discrimination.

### Discriminatory databases, data collection and sharing

As we witnessed in Chapter One, gathering information might be a controversial political issue. While not always involving advanced technology, misuse of especially sensitive data (nationality, economic status, sexual orientation) can lead to discrimination and further human rights abuses. Such cases were elaborated by several of our interviewees.

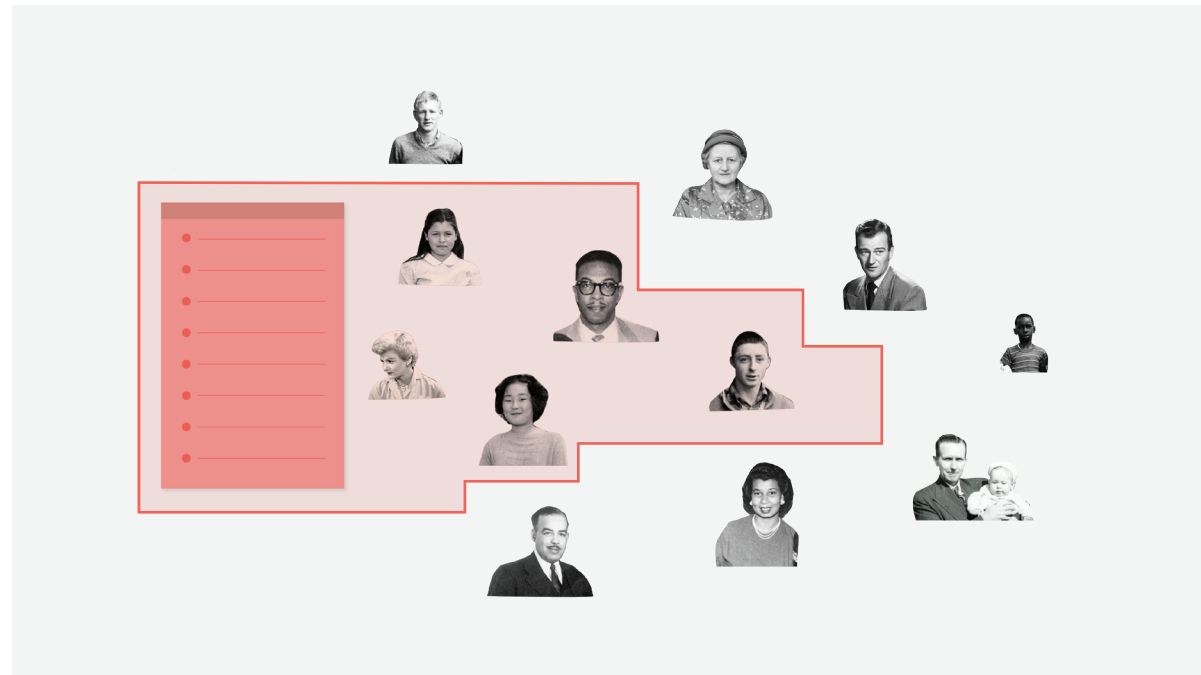
One of the most controversial and highly discussed examples of such misuse is a case of the so-called Roma register in Sweden. In 2013, the Swedish press revealed that police from the Skåne region created and maintained an electronic register containing data on people of Roma origin.<sup>25</sup> This database contained information on more than 4,000 people, including 1,000 children. Officially, the registry was used to combat crime and carry out immigration policy and at

least 70 officers had access to the database. Press reports caused public outrage and led to an investigation.

Civil Rights Defenders (CRD), one of our interviewees, was highly involved in this case. They monitored the case and litigated on behalf of the affected community. The CRD activities led to two court judgments resulting in financial compensation for victims.<sup>26</sup> John Stauffer, Legal Director of CRD, stressed that an important part of the work was to recognize and combine both privacy and anti-discrimination claims. Initial findings of the internal police investigation acknowledged the misuse of data but did not address discriminatory effect.

This discovery led CRD to further strategic litigation. Stauffer said:

*[T]here was a decision saying that Roma should be compensated for all the problems with the register. They would each receive 5,000 Swedish krona for this violation. But it didn't include compensation for the ethnic aspect or the discriminatory aspect of the register, which really upset the Roma. [T]hey were happy about all the findings, but... the ethnic aspect was the important one, the serious one. And also from our perspective that was the most serious issue here.*



Another example of databases that affect specific groups pertains to a case in Poland. In 2010, the local authorities in Warsaw proposed to create a database of homeless people and people using shelters.<sup>27</sup> The database contained personal details and sensitive data such as health condition, addictions, and diseases with the overall intent of improving the management of funds allocated for social security. When it was discovered that courts and police would have access to the database, advocates raised questions about underlying motives for its creation. Like many CSOs offering support to the homeless, one of our interviewees, Kamiliańska Misja Pomocy Społecznej (KMPS, Camillian Mission for Social Assistance), argued that a database constructed in such a way would limit the anonymity of the homeless and destroy people's trust in social welfare systems.

After much protest, local authorities did not develop the database. Director of KMPS, Adriana Porowska, elaborated stating that organizations were in favor of collection of statistical information. However, when personal data became a factor in such collection, there was opposition to stripping homeless people of their rights to data privacy and anonymity. She also stressed the unequal burden of surveillance that could arise from the creation of such a database.

*[T]hey wanted to make a database to which everybody would have an access, you know, the court, the curator, the police, the guard of the place and who else. What is it anyway? Well, if a person would like to use my help, he falls into such a base and he does not understand at all why. When you become a homeless person, you are deprived of all rights? Everyone has access to my data and now I ask: why? Prisoners have more rights than homeless people in this situation... [M]y way of thinking and approach to the other human, you cannot treat these people different... you have to convince me that my personal data should be in the possession of all!*

Another case in Poland points to the issue of the potential misuse of data collection of specific populations.<sup>28</sup> In 2017, the Polish Prosecutor General decided to monitor all cases of registration of same-sex marriages granted by governments of foreign countries.<sup>29</sup> Additionally, he asked all local prosecutors to identify and register all cases of persons asking for marital status documents for the purposes of formalizing same-sex unions abroad. One of our interviewees, Paweł Knut, a lawyer from Kampania Przeciw Homofobii (Campaign Against Homophobia), stressed the political motivations of this action and potential chilling effect for same-sex couples aiming to legalize their relationships. He also likened the case to Operation Hyacinth, an undercover initiative of the Polish communist secret service in the 1980s, which aimed to create a register of actual or alleged homosexuals.<sup>30</sup>

*[The case] was about identifying same-sex couples, and escalating this, creating a form of a register and what is interesting, the prosecutor did not indicate why it would serve, why would this information be collected, what further actions would be taken in connection with this. We were concerned about it, mainly because we did not see the purpose of these actions. We saw more clearly in these guidelines a political act that would lead to such a chilling effect.*

Related, our interviewees revealed a similar case in the United Kingdom, when the National Health Service (NHS) shared confidential data about migrants with the Home Office.<sup>31</sup> The purpose of such sharing was to track potential immigration offenders. Official numbers showed that under this sharing agreement, data of more than 1,297 migrants were disclosed. One of our participants, Migrants Rights Network (supported by Liberty), decided to file a court case contesting the data sharing agreement. MRN Director Fizza Qureshi said:

*Essentially, there was an unveiling of the memorandum of understanding between those three organizations [Home Office, NHS Digital, and Department of Health], where the Home Office was requesting what they called non-medical information from NHS Digital for people who they believed were immigration offenders or they had lost contact with. So it was for immigration enforcement purposes.*

Data sharing in this case could not only lead to privacy damages, but also affect the right to health and access to public services. Qureshi said:

*And there would be others who were undocumented or had a precarious situation and they were terrified of accessing the health service, because they automatically assumed that it was linked with wide authorities, that this was one authority and [that] it was part of a broader system of enforcement and immigration... [W]e would reassure them that, at that time, it wasn't linked, that the Home Office couldn't just contact the health service and find out your information, at that time. That reassurance you cannot offer now to those migrants, and there are now cases of people saying, "Well, I won't register. I won't access the services until I have to." So you are leaving, you know people are now leaving things to later when it is more problematic, complex, more expensive the health service, but also their physical and mental well-being is massively affected by leaving things to a later day.*

Some organizations focusing on the rights of transgender people are challenging the idea of data collection and processing outright. Some CSOs pointed out that use of gender data by an automated system might limit access to services (see also page 21). Richard Köhler, a senior policy officer from Transgender Europe, said:

Who actually has the right to record gender data? Why does the state think it has the right to do that? Isn't that a breach of privacy? ...[G]ender is very, very personal information... [W]ho's giving the state this right to record this data? What are they doing with that?

Köhler posed additional questions:

Why is it recorded? How is it recorded? What happens to these datasets? Like, how easily are they accessible? Are they automatically transferred to any other further institution?

### Data collection for equality

As mentioned above, many human rights organizations view data for equality as a critical matter of importance, and for more than a third of the organizations we interviewed, data and discrimination refers to collection

of data about specific groups and minorities, such as LGBTQ, migrant, and ethnic populations. According to many participants, the collection of information about specific groups can have a great impact on how government and the general public perceive problems that affect minority populations. Organizations criticized the unavailability of certain kinds of data that can help to identify and elucidate minorities' specific problems.

SG6: Our main problem with regards to data is the lack of ethnically disaggregated data... But it can be done and it needs to be done, because if you can't even agree on the official numbers, as well as identifying you know the geography of poverty and exclusion [or] how complex stratified Roma communities are... you can only speculate.

Equality data is also a crucial resource for advocacy and strategic litigation. Very often in anti-discrimination

cases, the most important pieces of evidence are statistical ones. As one of the organizations working in the field stated:

HR3: We have such a balanced view, because we are fans and advocates of privacy in the context of data collection, but we need... something more to be able to argue in court. When filing a lawsuit and saying softly that it is bad is not enough. We must also have some data.

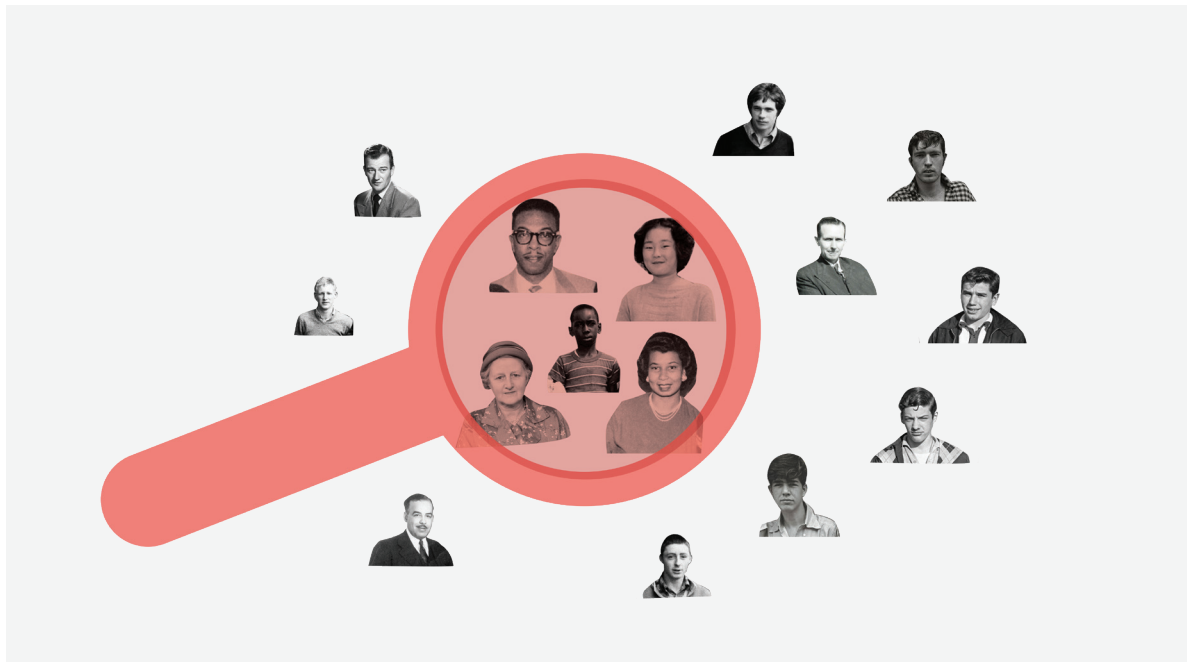
Without data, organizations very often cannot represent the groups whose problems they wish to highlight or present compelling arguments to public institutions. Lack of information about specific groups can also lead to denying the existence of some problems like racism in public debate and policy.

SG6: [D]ata becomes a crucial issue when it comes to school segregation... I've been to schools, special schools, schools for children with learning disabilities, where it is obvious that 90% of the intake is children of Romani origin, and the director would say to me, "We don't know. We are not allowed to collect such data. We don't know how many Romani children."

SG2: [T]he extent of the denial of racism in Europe compared to in, compared to the US is, you know, is, is big. So if you don't have the data to show it... it's really something that we are encountering in all of our work. So that's why that's really much a priority.

Some participants acknowledged the potential dangers of "equality data collection." They are worried that some actors will use information about minority communities to harm them.

SG2: So data should not be... used by police to profile. [I]t shouldn't be used negatively, shouldn't be used to deport, like children, like what we see in the UK now.





SG9: I am telling a group of people who are... fighting for getting Roma on the ethnic monitoring, "Be careful what you wish for. You can have it on there, that's great, because you can know how many people are in the system etc. But be wary that it can be used against you at some point."

HR6: Yeah, well, yeah of course, on the one hand... it's always a serious problem that we don't have the data. On the other hand, it is a very sensitive issue because these data could be used for, for the opposite aim that we want to show with them.

Among many CSOs, debate over data for equality touches the problem of balancing human rights and finding adequate safeguards to protect the rights and interests of affected communities.

HR3: It means we stand on such a continental standpoint that the collection of this data is in principle prohibited, but perhaps there are certain values that are superior or that this method of collecting data may be so constructed that this privacy right is not infringed.

SG2: Obviously the link is that we are aware of data abuses and we believe that we need proper data collection that respects fundamental rights and the right to privacy and so we develop also kind of standards how that data collection should happen in recognition of data protection rules and in recognition of, the right to self identify.

Moreover, some organizations providing services to vulnerable populations view databases as an effective means to helping clients meet their needs. For example, one group created an online case management system that details legal advice to migrants and that streamlines the provision of other benefits and services.

SG1: We made quite a fast system in which we store everything in electronic version. These are word files or pictures. Broken down into customers. We have it registered in GODO [Polish Data Protection Authority]... [W]e collect data about our customers, and we already see on the basis of this data some tendencies, and common problems, and support groups that we can create for these people.

Another organization created a database in order to more easily understand and serve homeless male populations. The database allows them to streamline services to identify complex forms of support and social assistance in a resource-smart manner.

API: A few years ago, we produced such a database and since then we... have been improving [it]... Actually, with one click, I know today that I have 88 people, their age, whether they are educated or working, whether they have insurance... what I want... what I can come up with and what different components to put into it.

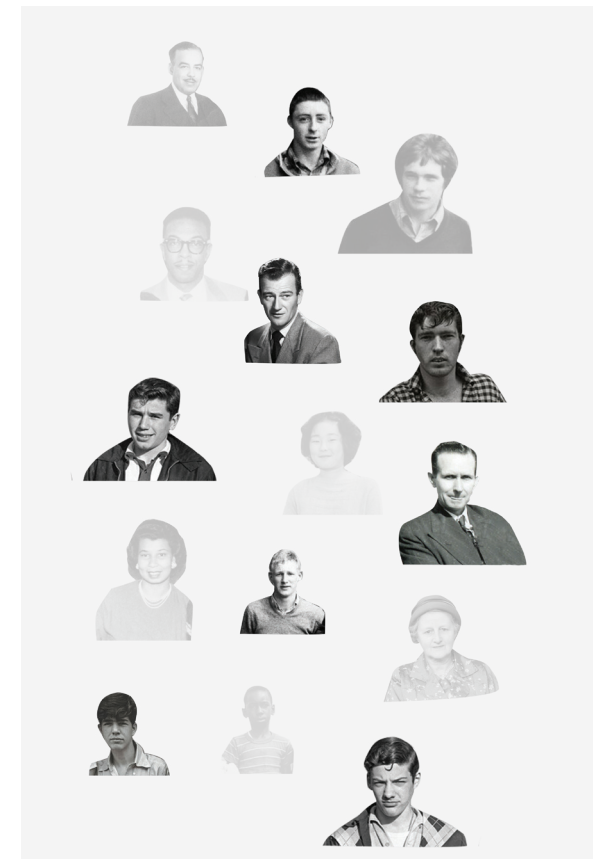
### (Mis)classification and (in)visible communities

Many groups discussed automated discrimination in terms of populations' need for recognition. Interviewees mentioned these populations are often ignored in data collection and automated systems, or are inaccurately categorized.

One example, which relates to the struggles of the transgender community in Sweden, highlights the problem of misclassification.

SG7: [I]f you change your legal gender, that means that your person[al identity] number is changed... [A]lmost all private companies... government agencies, and every official that you deal with, they all ask for your person number... [T]hat's how they identify you. So, if you change that then a number of problematic situations arise from it.

In other words, when a person undergoes gender reassignment, they receive a new personal identity number, which contains a new gender marker. Any public and private services tied to the ID system, such as banking, healthcare, and insurance, treats the newly ID'd individual as a completely different person. Without any connection to past transactions, interactions, or records, the transgender person experiences disruption or denial of past services, many of which are critical to daily survival.



A similar problem of an unfair or discriminatory database has unfolded with migrants in Poland. In this case, migrants, including those whose stay is fully legal, face routine, bureaucratic obstacles that prevent them from obtaining PESEL, a personal ID number. Exclusion from PESEL has cascading effects, given that PESEL unlocks access to numerous public services. One interviewee spoke about the consequences, stating:

SG1: *[I]magine the situation: on-line recruitment to the nursery and to kindergarten. A child without a PESEL. A migrant. Well, at this point, the baby is not accepted. You cannot enroll a child. You cannot insert a child to the on-line form at the moment when there is no PESEL... And at that moment, poor mom puts her PESEL, hoping that it is just a system error and it will start running a few times, then it turns out that it actually turns out that deadline is tomorrow. Then she learns on the city helpline that in such a case, she can't qualify. And then she goes with this broken Polish to kindergarten, trying to explain to somebody. And here it starts "Ah... you are not from Poland?"*

The goal of accurately appearing in critical ID database systems, however, is not without qualification. In a different conversation, another organization stressed the need of homeless persons to stay anonymous in databases to avoid being profiled or suffering prejudice, for example due to a history of substance abuse or criminal activity. Anonymity guards against stigmatization of the poor and serves as a pre-condition for building relations between clients and providers based on trust and effective assistance.

API: *[A]mong homeless people, especially anonymity is important for a very simple reason: very often these people are ashamed of what happened in their lives. Every one of us has committed a mistake and does not necessarily want to come back... And very often my clients made a mistake, a big one... If I had seen what is going on with every man before he came in and I would talk to him, do you think that as a mother of an 11 year old boy I would be able to help people who are after all sorts of sentences? I must have a chance to look at a man as a white card. If I give him a white card, then I cannot be prejudiced in advance.*

## Platforms and hate speech

Another frequent topic of discussion among interviewees was hate speech against minorities. Less than one third of our interviewees (eight groups) mentioned online hate speech when interpreting and speaking about data-driven discrimination, and many groups spoke about this topic first when explaining their work in the digital realm. While some organizations explicitly noted the problem of hateful content in social media platforms, they also acknowledged hate speech appears in "traditional" media too and very often talked about this problem in general, regardless of where it appears.

When focusing on specific actions, organizations stressed different strategies to combat hateful content. For example, organizations advocated new laws criminalizing certain statements. However, free speech concerns also arose, and interviewees noted how giving the government such powers can backfire, result in censorship of political opponents, and work against the same minorities that these laws intend to protect.

SG6: *I have said to the people who want more regulation of hate speech that, well, you would want to give more powers to Hungarian government that you believe is racist to the core... you actually want to give them more powers to circumscribe freedom of expression?*

On the other hand, groups also mentioned other non-binding measures, such as cooperation with companies or creation of codes of conduct. Some of the organizations function as so-called trusted flaggers, whose role is to monitor and point the hateful content.

SG1: *[W]e were in touch then with companies when that was being negotiated a little bit that code of conduct and of course, you know, they also reach to us and if we have, if we receive from a membership any complaint as to take down that wasn't on time that was clearly violating terms of services.*



This cooperation between CSOs and companies has proven controversial. As one of the digital rights representatives explained, trusted flaggers complicate the protection of freedom of speech online.

DCR2: [A]nother problem that we see, that NGOs are involved, is the so-called trusted flaggers... [T]hey send stuff to the companies... [M]ost of them are not lawyers, so if you need to assess the legality of a content or not... [N]ot being a lawyer and really knowing the law, it's very difficult to know and everything needs to be looked into context.

These different perspectives were common occurrences in the discussion of hate speech online. Aware of potential problems with safeguarding against hate speech, one organization stressed its attempts at balancing different human rights.

SG2: We're trying basically to have a coherent approach to, to hate speech with regards to freedom of, of communication, and digital rights in general... [W]e cannot say, "Remove all the content that is racist," but, "Oh be careful when you remove content that." ...[T]here are also risks inherent to providing private sector the opportunity to just censor content while there is no actual prosecution.

The most popular themes from our interviews—data for equality, discriminatory classification and misclassification, and hate speech—reveal a lack of alignment between debates focused on automated discrimination and those focused more broadly on data and inequalities. The themes also provide clues as to potential starting points for a conversation about “high-tech” discrimination. The fact that marginalized populations do not fit into certain databases may serve as a basis, for example, for strategizing around the use of data protection

claims with respect to vulnerable communities. With this perspective in mind, in the next chapter, we present themes related to a more limited topic of discussion and engagement among our interviewees: automated computer systems and data protection.

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<sup>25</sup>Niklas Orrenius, “Över Tusen Barn med i Olaglig Kartläggning.” *Dagens Nyheter*, September 23, 2013, <https://www.dn.se/nyheter/sverige/over-tusen-barn-med-i-olaglig-kartlaggning>.

<sup>26</sup>Civil Rights Defenders, *Swedish State to Pay Historic Damages to the Roma Community*, 2017, <https://www.civilrightsdefenders.org/news/swedish-state-to-pay-historic-damages-to-the-roma-community/>.

<sup>27</sup>Grzegorz Lisicki, “W Warszawie Powstanie Baza Danych Bezdomnych?” *Gazeta Wyborcza*, March 19, 2010, [http://warszawa.wyborcza.pl/warszawa/1,54420,7677784,W\\_Warszawie\\_powstanie\\_baza\\_danych\\_bezdomnych\\_.html](http://warszawa.wyborcza.pl/warszawa/1,54420,7677784,W_Warszawie_powstanie_baza_danych_bezdomnych_.html).

<sup>28</sup>“Inwigilacja Osób LGBT. Prokuratura Będzie Zbierać Ich Dane Z Urzędów,” *Newsweek Polska*, March 6, 2017, <http://www.newsweek.pl/polska/spoleczenstwo/inwigilacja-osob-lgbt-prokuratura-bedzie-zbierac-ich-dane-z-urzedow,artykuly,406420,1.html>.

<sup>29</sup>Same-sex marriages and unions are not allowed in Poland, and the current right-wing government is a strong opponent of formalization of such unions.

<sup>30</sup>Łukasz Szulc, *Transnational Homosexuals in Communist Poland*, (London: Palgrave Macmillan, 2017), 106–110.

<sup>31</sup>Alan Travis, “Immigration officials to continue to seek NHS England patient data,” *The Guardian*, February 28, 2018, <https://www.theguardian.com/uk-news/2018/feb/28/immigration-officials-to-continue-to-seek-nhs-england-patient-data>.

# Chapter Four

## Limited Engagement: Connections to Automated Systems and Data Protection

As previously discussed, CSOs rarely discussed automated systems, let alone automated discrimination. However, a small minority of interviewees did. Their knowledge, experiences, and opinions provide useful insights about the salience of data protection, data governance, and automated technologies. Below, we trace the contours of these few conversations and unpack any links between data protection and antidiscrimination.

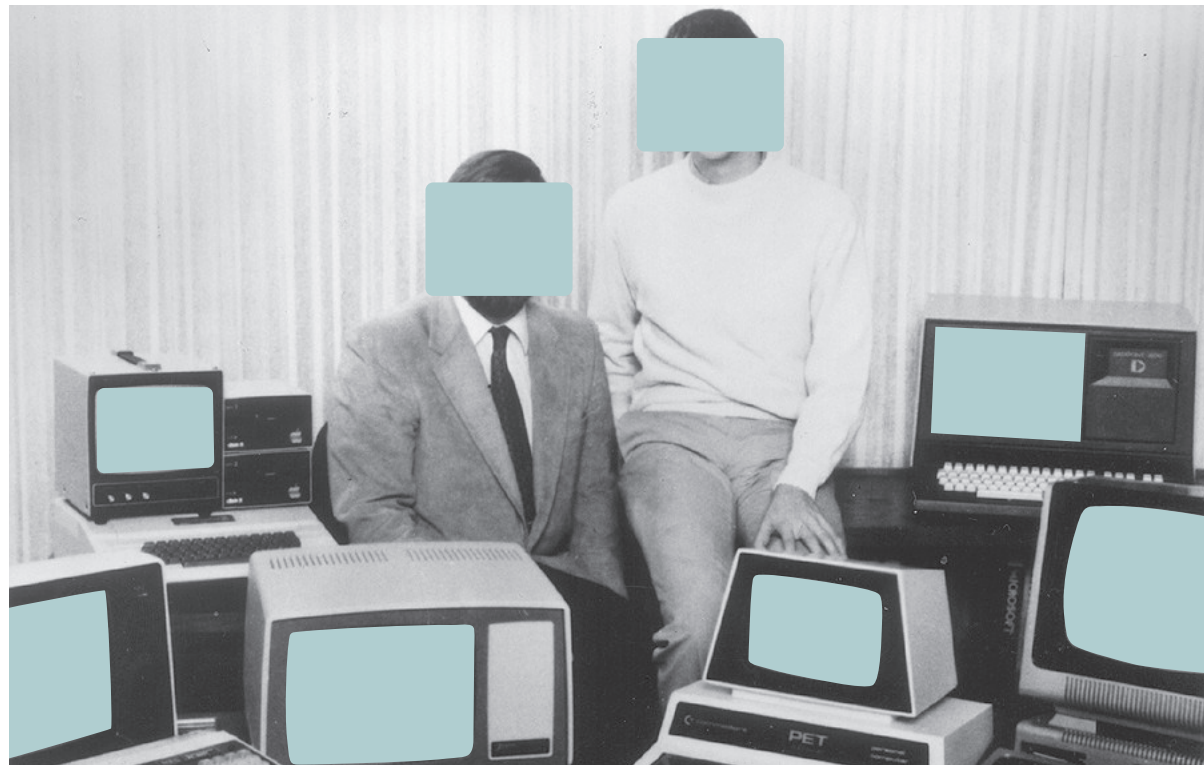
### Dehumanization and disempowerment by black box systems

A handful of digital and consumer rights groups as well as anti-poverty organizations touched upon automated technologies such as credit scoring, automated processing of welfare applications, predictive policing, and differentiated pricing. Some highlighted the potential harms for specific vulnerable populations, while others focused on the broader problem of transparency in automated systems. In a few cases, we introduced hypothetical scenarios due to interviewees' lack of immediate understanding of the issues, which then generated reflection.

Some interviewees turned their attention to issues like errors and dehumanization of decision-making process, particularly in the context of automated welfare systems. For example, when public administration is dealing with complex human problems, machine-based management might not be the best idea; at least a real person should accompany automated decisions.

AP4: *One of the concerns that can arise in relation to this type of development is that it de-personalizes the system and the process, and then it becomes effectively an ATM process... It requires personal interaction and it requires a person with experience, knowledge, and ability to listen to what the clients have said in order to understand and to identify what the issues and the obstacles are and what the solutions are.*

AP2: *[W]e already felt that people in public employment services—of course not all of them, not generalizing—but there was an issue that people behaved kind of like computers. Like they had the checklist and you either... you know... fit into this box or you don't and if you don't: goodbye, the system's off. Which is a problem... but there was hope, because you're thinking "They're still human beings." You can somehow appeal that there is a heart there, there is a brain there, there's a conscience there.*



One of the participants reflected on the problem of classification and categorization in relation to automated decisions. This interviewee said that while categorization should assist people and help them in solving their problems, this is not always the case.

AP4: Technology should fit the people. The people should not fit the technology. So, we shouldn't be trying to squeeze people into categories or areas simply so that they can be processed and managed and their data can be collected and analyzed. It should always remain people focused.

Interviewees also identified the problem of unequal power relations and governing through automated technologies. They felt that the design phase plays a critical opportunity for assessing the effects of automated systems.

AP2: With computers you know that there isn't any heart, brain, or conscience—at least, again, for the time being. So it all becomes a question of... first of all, how... what is the objective? How is it programmed? Is the objective to take people... as many people as possible benefits, to deny benefits to as many people as possible?

Other observed concerns relate to the translation of legal language and administrative procedure into the language of machines. One interviewee worried that translation might lead to unwanted outcomes, such as in the context of welfare services.

AP4: It will still come down to an individual designated officer's space reviewing all of the information, and then making an appropriate decision. Because, the automated system may not be able to take into consideration certain factors.

Lack of transparency surrounding automated decisions worried some who perceived automated systems to be black boxes. One participant insisted that automated processing comply with the existing law.

DCR4: [W]hat you see is that our economy and the society will become increasingly influenced by automated decision-making processes. The problem is these processes are often the black box, and you simply don't know how these decisions are made... [W]e have to make sure that these ADM processes, these automated decision making processes are acting in accordance to the law.

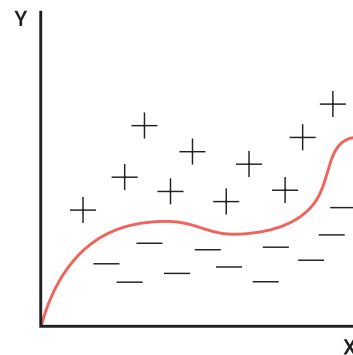
An interviewee working on a case of automated tax and welfare fraud detection complained about lack of transparency that hinders identification of discriminatory effects.

HR2: [Y]ou do not really know what factors are used in this algorithm... [though] we do suspect, for example, like the type of neighborhood that you live in can point to certain social status or... ethnicity, or something like that... could be discriminating.

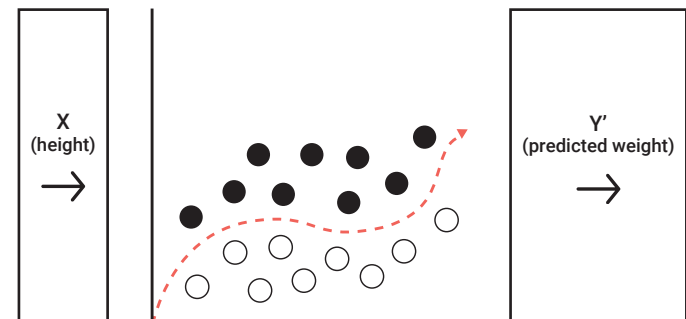
**SELECT TRAINING DATA**

X	Y
Height 1	Weight 1
Height 2	Weight 2
Height 3	Weight 3

**MODEL THE DATA WITH LEARNING ALGORITHM**



**USE THE MODEL & MAKE PREDICTIONS**



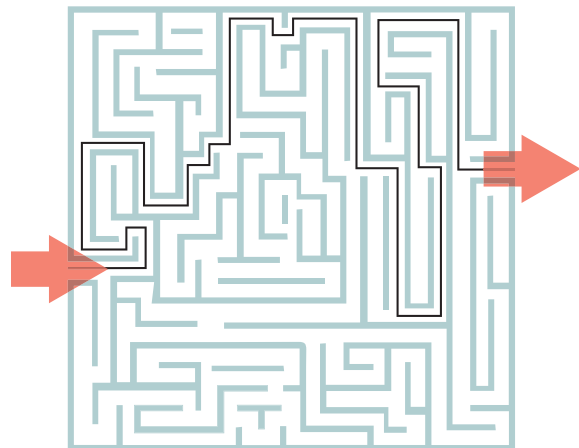
### Governance of algorithms and automated systems

Some groups actively engage with governance issues and seek to redress harms. These comments came mostly from digital and consumer rights groups. It is worth noting that antidiscrimination did not feature in discussions on algorithms and data governance. For example, those focused on data privacy issues did not articulate antidiscrimination as a priority in their work.

For example, one participant stressed the need for an independent agency with a strong public mandate to inspect data-driven systems. The interviewee stated:

DCR4: [Implementation] must be at least assessed by an authority or independent agency that... [can] look into these algorithms and... assess them... make an audit! ...[N]o private organization, but something that is really authorized by society and also by the government that can look into these algorithms.

The interviewee continued by wondering whether such oversight requires going beyond data protection frameworks:



DCR4: But we said that these algorithms must somehow be checked for, controlled, there must be someone looking into them... How should control systems be designed? Do we need new transparency rules? Do we need rules that go beyond the data protection regulation, for example when non-personal data is concerned?

Another participant questioned whether a one-size-fits-all approach might be the best solution for systems that are implemented in very different areas.

DCR6: They send you a computer formula how do you determine whether it's legal or not. I mean it is absurd. I think there are other ways of... creat[ing] some kind of oversight. But I'm not sure how easy it is to do it generally.

Other participants looked to the role of self-reflection during design phase of automated systems and described how doing so helped governments avoid costly mistakes that “can take a lot of time and a lot of effort.”

### Strategic use of data protection frameworks

Except for digital and consumer rights groups, human rights organizations do not readily turn to data protection frameworks when thinking about data and discrimination. The few organizations that strategically use data protection—articulated below—are far from the norm.

For example, during a court case evaluating the legality of a Roma register in Sweden (described above), one human rights organization tried to fuse both data protection and anti-discrimination arguments in their challenge. While the organization referred to both the European Convention on Human Rights (related to the idea of integrity) and data protection rules (related to processing), its argument hinged on the latter to highlight the Swedish police's problematic use of sensitive (in this case, ethnic) data.

Data protection also proved a useful framework for a case in Poland. An anti-discrimination organization, an LGBTQ organization, and a digital rights organization combined forces to prevent a public prosecutor from collecting data about LGBTQ couples in the country. Organizations submitted an official statement to the Data Protection Authority asking for a clarification of the case citing to the unlawful processing of sensitive (in this case, sexual orientation) data. SG3 described how the three organizations directed an intervention towards the General Inspector for Data Protection:

to check what data was collected... because this is really data on sexual orientation, which are particularly sensitive data within the meaning of these provisions, which are now in force and we have decided that being a public institution does not absolve the institution from the desirability of collecting such data.

We also heard about examples of advocacy toward data protection law itself, unsurprisingly pushed by digital and consumer rights organizations. Many of them prioritized European data protection reform in the past several years, though non-digital groups occasionally became involved. For example, an organization that protects transgender rights unsuccessfully advocated lawmakers focused on the GDPR to expand this category of sensitive data to include gender identity and gender expression.

As witnessed above, the debate on automated discrimination has not reached many human rights organizations. These topics are neither well-recognized nor related to discrimination and other social rights issues. Next, we turn to organizations' operations, collaborations, and institutional issues that help us further understand how human rights' organizations view and engage with data-driven discrimination.

# Chapter Five

## Capacity Constraints: Human Rights Work on Data-related Issues

Organizations with whom we spoke employ a variety of tactics and engage in collaborations when working on data-related issues. We introduce these organizational priorities below and also describe some struggles that organizations face.

### From lobbying to strategic litigation: Political engagement

For the great majority of our participants, political-oriented work is a main focus. For those who engage in data-related issues (e.g., data and inequality, automated discrimination, or data protection), organizations use conventionally recognized methods of engagement, such as research, strategic litigation, and legal and political advocacy.

Some groups pursue a research-based strategy to shape discourse as a means to effect legal change. Unsurprisingly, our interviewees working on equality data regularly collect and analyze data, publish the results in the form of reports, and share evidence in order to influence decision makers. With respect to data-driven discrimination, one interviewee commented on the overall dearth of evidence in relation to technical complexities of the issue, stating that:

DCR 6: Well, my colleagues there definitely started thinking it. Doing our research and investigation of it... [F]or example, you could do a really good project on discrimination in financial services. But actually trying to find the right research methodology is really, really difficult.

A minority of our interviewees also rely on public information or work with whistleblowers and victims.

HR7: We are so relying on the Freedom of Information Act. That's basically our main [method of engagement]. And then every now and again, an individual, a whistleblower... or a victim.

Interviewees that engage in issues related to advanced technologies felt pressured to keep up with technical complexities. Collecting information and discovering how technologies work is demanding. One group commented that new problems created by new technologies compel the creation of “job[s] for nerds.” Competent staff is needed to discover problems and possibilities related to the advent of new automated systems.

Besides research, other groups focus on strategic litigation. This tactic can result in a variety of outcomes, from setting legal precedent to drawing public attention to a controversial problem. As one participant explained, strategic litigation on racial profiling is not always about winning the case, but rather working with media to give marginalized men a voice.

HR2: It's very important to give this community of young, non-white men a voice and also a voice in court... [W]e wouldn't necessarily need to win a case so, if media-wise it would [win]... [I]t wouldn't make such a difference and you could actually—after losing a case—make a fuss about it.

However, strategic litigation is both time- and resource-consuming and requires risk-taking calculation and experimentation with a variety of techniques (e.g., class action lawsuits or individual cases). The Swedish organization working on the Roma register described in Chapter Three encountered these challenges:

So the people, what we did, we did a lot thinking, how to go about, how to go ahead with this case. Should it be a class action, where we try to gather as many as possible over 4,700 individuals? Or, should we do it more as a strategic pilot case, where we select a few individuals and test? ...[I]n the end, we decided to go for the pilot solution, because we did [have]—just in time—the resources to manage a class action.

Finally, the majority of organizations with whom we spoke directly lobby for or against specific initiatives. For example, one organization advocated against the creation of a database of homeless persons and, in collaboration with other groups, successfully blocked the effort. Organizations also work through legislative processes, take part in the public consultations, and prepare opinions and amendments to various policy proposals. For example, digital and non-digital rights groups participated in the policy process of data protection reform in the EU.

### METHODS AND TOOLS



### Values and the problem of silos

Some interviewees stressed that many CSOs work in the silos that are related to their mission and values. Groups work within particular rubrics that include specific tools and methods. For example, digital rights groups focus on data protection or freedom of speech. In interviews, they did not articulate the problem of marginalization or antidiscrimination as a priority for work on data privacy. Despite detailing experiences of collaboration across these silos, interviewees also spoke about several situations in which silos work against each other.

Differences in priorities create divisions among human rights CSOs. Interviewees described tensions between privacy and other social justice values when new technologies and data processing were being introduced for social purposes. An example of this tension appeared during the debate over reducing energy poverty in the United Kingdom. Governmental departments announced the intention to share data with energy companies in order to identify households in need. While environmental and anti-poverty groups supported this proposal, privacy-concerned organizations criticized the idea.

*DCR6: There were certainly detectable tensions when we did this work on data sharing in energy poverty sector. The quotes that came through from privacy groups were the almost—what would be the right expression—the sort of radicals in preserving this privacy thing at all cost to the detriment of the social good of society or people.*

Silo-like structures and normative differences regarding technologies' power to shape society can complicate coordination and collaboration around their governance. When organizations narrow their attention on specific issues and employ specific tactics and strategies, they do not always recognize and understand other points of view and nuances of the social impacts

of new technologies. For example, digital rights and specialist human rights groups we spoke with tend to see harmful technologies as an outcome or an end in itself versus as one part in a larger, complex process of systematic oppression or injustice. In addition, while digital rights organizations target governance of digital technology, human rights organizations that work with and for specific vulnerable groups target what they perceive to be more immediate interests or needs of their constituencies. This leads, one interviewee said, to different understanding of problems within the socio-technical landscape.

*DCR6: So, there is a dichotomy that digital rights groups do not connect with disadvantage a lot. Other groups that connect with disadvantage don't know much about big data and profiling... But for digital rights groups, it is also a question of understanding what disadvantage means.*

Values play a role in these differences, and some interviewees perceive fundamental differences in organizational commitments to individual versus collective rights. At least for one participant, digital rights' advocates tend to be focused on individual, if not libertarian freedoms. By contrast, anti-discrimination groups tend to support more progressive causes and concentrate on collective issues like equality.

*DCR8: We come from sort of like internet freedom movement which... has a little bit of egalitarian[ism]... Everything needs to be free. The internet needs to be free. Information needs to be free. Except it has to be private and secure but like freedom of speech and there is, of course, inherent tension... [P]rivacy and freedom of speech can be a bipartisan issue. But discrimination is, much more progressive—[an] inherently progressive force with a particular type of progressive ideology. Not everybody in our circles is very comfortable with... that. I see that problem sometimes where... we don't feel that we have a mandate to speak out against racism.*

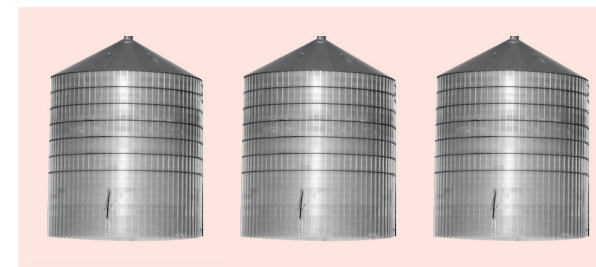
Silos are not only visible between organizations but also within organizations between different departments or projects. In the case of one organization, they traditionally operate within different thematic-oriented programs. Some of these programs within the organization focused on freedom of speech and data protection, and a separate program on antidiscrimination. However, these programs are led by separate coordinators, are made up of different team members, and overall comprise of varying experience and knowledge that can end up existing in separate silos.

While a clash in values influences the inability of groups to work together, one group reflected upon a lack of capacity in the overall field, stating that cooperation does not exist “due to a lack of awareness of these issues.”

### Collaborations and disputes

Divisiveness is not absolute, however. Collaboration and coordination occur internally and across human rights sectors, and our interviewees articulated a number of examples where they acknowledged working across silos.

A number of collaborations described by interviewees highlight the importance of different expertise and experiences and of organizational willingness to go beyond obvious networks. For example, a general human rights organization and migrant rights organization partnered with regards to a data sharing agreement between the United Kingdom's healthcare operators and





its immigration office. In this case, the human rights organization brought legal expertise regarding data protection, and the migrant rights group mobilized its networks and highlighted the experiences of affected communities. The human rights group explained, “[D]oing it on behalf of the organization was kind of safer,” and suggested that the migrants group is “more on the ground than we are.”

Another example involves a coalition that formed between a digital rights organization and an LGBTQ group. Here, the digital rights advocates brought their experience with data protection, while the LGBTQ group focused on antidiscrimination. At the EU level, one interviewee spoke about collaboration between two umbrella organizations with a focus on data profiling.

Other experiences referenced in the course of our conversations involve private companies. While political advocacy often targets companies in the hopes of forcing them to change their behaviors, some interviews

revealed examples of cooperation between CSOs and businesses. In one case, banks became an unlikely ally of a CSO when they opposed a proposed data sharing agreement between governmental departments and banks.

*SG9: I think also there is an avenue here to work with the companies and the organizations that are having to enforce the rules themselves, so actually the banks themselves, which we were a bit surprised actually. We decided to talk to the ethical banks... that they will be a bit more concerned about implementing this policy... So it's a way to use people who would unlikely be your allies, ehm, and they are not gonna be on the same page with everything, but where they are, where they have concerns, they are willing to engage.*

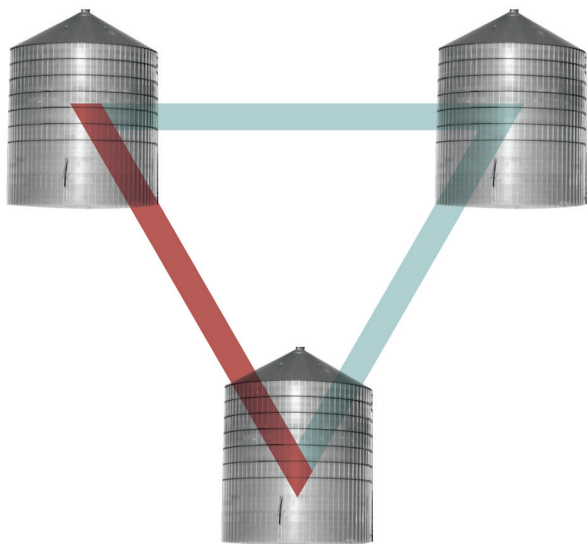
We also witnessed some examples of internal collaboration within organizations that resulted out of the need to address different techno-legal problems. In one example, human rights organizations engaged teams of lawyers combining experience from data protection, immigration, and human rights areas. In other organizations, representatives of different departments and programs within the organization cooperate with each other when there is a need to combine different set of skills.

*DCR4: Yes, there is certainly cooperation, because I mean, we are based in the same building. We are just a couple of doors away and sometimes when I for example have question on credit scores, for example, now I am doing a paper on algorithms and I need the expertise, when I need some examples to form my arguments, I just talk to the colleagues. And this very cooperative... [a] very helpful climate here in the organization.*

In another example, an organization reported an internal breakdown of silos and that a technological lens now fits into each program area.

*HR7: When we're... doing our organizational strategy, it really felt as though you can either have a whole strand called technology, or you could just say all the work we do will have technology in it.*

In this next chapter, we move to how organizations see the future, including the possibility for engagement in socio-technical debates about automated discrimination.



# Chapter Six

## Needs for Debate on Automated Discrimination

As we have demonstrated, intersections between antidiscrimination and data-driven systems depend on specific expertise, knowledge, and resources. Not all organizations have those necessary assets. Below, we elaborate on the prospects of human rights CSOs engaging with automated discrimination. Related, we also identify capacity-related needs.

### Dialogue between digital and social justice worlds

As we noticed above, CSOs often work on narrow issues and operate in silos. As a consequence, organizations are neither aware of different points of view vis-à-vis technology nor understand them. One of our participants stressed the value of generating dialogue between different interest groups.

*DCR 6: I mean I think in terms of NGOs and civil society here, you would need to begin with some basic getting them together. Because I don't think they meet very often or see each other very often. So, getting consumer, environmental, and social groups and some community groups together, some charities together to actually talk about this would be very interesting in the first place.*

Another organization talked about examples of existing dialogue between digital oriented groups and anti-racism organizations. This experience was beneficial for both “sides” and could serve as a good practice in the future.

*DCR2: [W]e find it very powerful that organizations like ENAR [European Network Against Racism] and EDRi [European Digital Rights], cooperate. And actually we did even like some recording and that was supposed to give some training about the issue... to show the two perspectives [antiracism and digital rights]... actually go together, hand in hand.*

### Cooperation between different sectors

The field of automated discrimination can benefit from a broader division of labor. At least three of our participants stressed the potential of collaboration or alignment with journalists and media. Investigative journalists could deeply examine certain cases, and CSOs and journalists could consider building small project teams to dig into specific cases.

*DCR8: When you get those type of journalists then you can create different type of partnerships, different type of sort of framing models, and then, and then you would create little project teams where we would have particular type of expertise which relates to the law and what needs to change in the law to, yeah, to create better practices where the journalists have capability to do more the action type of research.*

*HR7: I would like to explore is whether we can pair up with investigators who can kind of go and find the cases for us. Because we are all just here in London. And no one is going out into the world.*

However, there are possible barriers to this type of collaboration. First, investigative journalism is shrinking, in light of limited funding and the current state of the media market. Second, CSOs and journalists hold

different goals vis-à-vis their work. For CSOs, the end goal is changing the world, where as for journalists and media, it is investigating and portraying reality.

*DCR8: Civil society needs to invest in partnerships with investigative journalism. But it requires a different mindset from both sides, because journalism... is not very comfortable with having a progressive agenda necessarily. They want to be objective.*

### Discovery of new methods for detecting data-driven problems

A few participants mentioned the need for new ways to investigate problems related to technology, especially their discriminatory effects. One participant whose organization has a team of researchers stressed that it is hard for them to identify effective detection strategies.

*DCR 6 Well, my colleagues there definitely started thinking it... [Y]ou could do a really good project on discrimination in financial services. But actually trying to find the right research methodology is really, really difficult.*

Other participants referenced their use of common tools like consumer or anti-discrimination tests, which could be developed further in the context of data-driven technologies.

*HR3: It immediately came to mind [as] something we could use. We started working on test situations, discrimination testing, or situation testing, and even carried out five very small test cases in different areas.*

DCR4: [T]o detect such a price differentiation in a scientifically robust manner, you really have to run very expensive but also very sophisticated tests. You have to make hundreds of price queries. They must be automated by computers, and these price queries must be made in such a way that, for example if you want to test for gender, or if you want to test for your computer system, everything must be equal, except this one criteria you want to test for.

One participant identified a unique area for further focus—namely, an affirmative agenda vis-à-vis new automated technologies. It speculated that while resource- and time-consuming, an affirmative agenda might give advocates additional strength and help them to achieve real change.

HR7: [I]n the wider advocacy I think you very often do need to say, “We don’t like this. What you could do instead is this,” because it’s just so much more effective as a way of messaging. And again, I think that’s where you really need technologists... “Here’s a way that you could do it. Why don’t you adopt this.” ...[I]f you could do that in kind of key areas, it would be an amazing way to achieve change I think, rather than just working in the negative space.

### Development of in-house techno-expertise

Organizations that are already working on or thinking about working on issues related to data-driven technologies very often stress the problem with capacity. They find digital technologies, generally, and data-related issues, specifically, difficult to understand. One interviewee felt unable to deconstruct policy reasoning or motivations or to assess policy consequences. Technical details and language function as barriers to understanding:

SG9: I mean we call these backdoor policies... They are backdoor, because we have no idea whose data is being shared and what is being requested until you’ve become a victim of it. And how do you become the victim of it? There’s a real lack of, kind of awareness of how you would find out.

Many of our interviewees told us that they wish to learn more about digital environment and socio-technical issues on the horizon. They spoke about additional training and general education for their staff.

SG3: I have the impression that we are now much more aware. But... we would like to learn more and if there were opportunities, I think that we would also use them.

Interviewees saw additional in-house expertise as essential to expanding into data-driven technologies. For one human rights organization, having a person with technology expertise in house allowed them to develop their work on various socio-technical problems, and they wish to expand this further.

HR7: But we are now sort of spreading further into the technology space or trying to. So, we have kind of in-house tech expert. Others who don’t have a background in tech but are getting there. And we are currently looking for a tech lawyer.

Another anti-discrimination organization said that currently it lacks adequate understanding of problems concerning technologies. However, they are considering moving into the area.

SG2: [W]e would welcome more training on kind of what are the risks related to racial discrimination in, in the digital world... [T]hat’s not maybe something we have the capacity to encompass right now. But we’re also looking to expand in[to the] area.

### The reality of unlikely engagement

For some organizations fighting discrimination and social marginalization, problems related to technology are not a priority, and there is small probability that automated discrimination would become an important issue in their portfolio. In world where many communities suffer from “classic” discrimination, data-driven discrimination seems an abstract and very distant problem.

SG3: [I]f we talk about new media and human rights at all, the discussion, unfortunately... we are all discussing how to deal with hate on the internet... basic problems... I do not know [how] to educate people to report this [automated discrimination]... I have the impression that the issue you are talking about is very sublime, sophisticated, unfortunately.

HR8: So what I am trying to say is that we are basically far behind in having a legal framework for normally day-to-day discrimination experience. And then talking about... about electronic forms of discrimination is just a very big jump... [T]here is a lot of other things missing, before we have, you know, substantial experience and knowledge about that type of discrimination.

As we learned above, the specter of unlikely engagement is real for some of our organizations. However, our interviewees also articulated a range of needs that would improve capacities to confront automated discrimination: bridging between digital rights and social and economic rights CSOs, collaborating with journalists, developing new detection methods, and cultivating in-house tech expertise. Our final chapter summarizes our most important findings and develops recommendations on the basis thereof.

# Chapter Seven

## Reflections and Recommendations

This report aims to understand how data-driven technologies link to the broader problem of discrimination and how automated discrimination connects or resonates with the work of human rights advocates. In this section, we reflect on our discoveries and consider ways that discussions on automated discrimination could be more inclusive and attentive to needs and interests of the broader human rights field. We present the main takeaways from this study, followed by recommendations.

### Takeaways

#### Disconnect with the discussion on automated systems

This study began against the backdrop of the GDPR and in alignment with public and academic discussion on algorithms, automated systems, artificial intelligence, their biases, and discriminatory potential. However, our interviews demonstrate that for many CSOs, automated discrimination is abstract and peripheral to their interests and core work. While automatization may be an emerging problem, its impact lies somewhere in the distant, rather than immediate, future. Very few organizations have a broad understanding of the topic, even fewer have had experience working on such issue. The political and social consequences of automation seems to be the domain of a small group, and there is a threat that this debate could remain niche and disconnected to groups and communities that are at risk of disproportionate impacts by data-driven technologies.

#### Main Points:

A range of human rights organizations are not talking and working on wider problems related to algorithms, automated systems, or artificial intelligence.

Discussion around automated discrimination is mostly limited to digital rights experts and remains distant to a wider human rights community.

#### Privacy's centrality plus other rights-based frameworks

Our interviews show that privacy is a dominant framework vis-à-vis data collection and privacy. But other fundamental rights matter too. Discussions of data collection and sharing about ethnic and other minority populations reflect concerns about unfairness and mistreatment. Groups feel that marginalized communities are disproportionately targeted for surveillance. Conversely, equal and accurate representation drive conversations about the lack of data about marginalized groups. It is important to acknowledge all existing frameworks and understand how they might facilitate discussion of automated discrimination.

#### Main points:

While conventional discussion on data-driven technology focuses on privacy, other relevant rubrics include antidiscrimination, social rights, inequalities, and minority rights.

Use of unconventional frames for automated discrimination may spark the creation of new tools and methods for human rights advocates.

#### Decision to engage and barriers to involvement

For most organizations, technology and data function as a component of their human rights work. Harmful technology counts as one amongst many causes contributing to a wide set of human rights problems that they address. Moreover, many organizations engage low-tech cases, and data-driven technologies are simply too advanced, opaque and complex to follow. Activists complain that when working on socio-technical issues, they face pressures to keep up with new skills and expertise. They struggle to realize the role of technology in a particular problem, understand how the technology works and detect actual or potential consequences. It is also important to understand a wide range of values that inform both whether and how CSOs work on technology-related issues, whether "low tech" or "high tech." These differences include whether to view technology as an end in itself, or as a means to an end; to support individual or collective rights; to address specific populations, such as members of marginalized groups, or engage general audiences.

#### Main Points:

Technologies and data do not function as a starting point for human rights work.

Many organizations work on low-tech cases of human rights abuses, while high-tech issues present barriers to involvement.

To assess the socio-technical implications of advanced technologies, organizations need to develop specific skills or capacity.

Organizations' mission and values affect their work and understanding of socio-technical problems (i.e. individual vs. collective rights).

### Inside and outside of technological silos

When socio-technical impacts arose as a topic of discussion, we found two quite distinct CSOs: organizations that position themselves as experts in data, privacy and technical matters, and others that do not (with different experiences and expertise on technical related stuff). This division relates to different values, strategies and tactics, networks, language, and more and can contribute to the formation of silo-structures in the field as well as engender friction between potential and actual collaborators. The main reference point for the discussion of and engagement in socio-technical debates about automated discrimination varies. Some might be concerned with technologies themselves, while others worry about broader implications for society or specific impacts on marginalized communities.

Main points:

Digital rights organizations have more experience than other organizations with data governance and data-driven technologies, and their values and priorities influence their scope and methods of work.

Organizations in different human rights sectors work in silos, which in turn affects perceptions and prioritization of socio-technical problems.

### Recommendations

Now that we have reviewed the main findings, we offer practical recommendations for CSOs, donor organizations, academics, and other interested stakeholders interested in combatting automated discrimination. We consider different levels, from organizations to sectors, and touch upon recommendations related to changing narratives, addressing capacity, supporting

collaborations, and broadly meeting needs of an emerging field.

### Discussion and engagement

#### Connect technology with social justice

It is important to look at socio-technical problems from the perspective of social justice and inequalities and address the needs and struggles of marginalized communities. To make it easier for organizations working for those groups, debate around data-driven and automated technologies should start with the consequences and not processes; people instead of technical details about algorithms.

#### Use data for equality as a starting point when introducing data-driven systems

The equality data perspective can serve as a starting point for conversation about high-tech discrimination. More broadly, affirmative framing of technology and of data can serve as a potentially powerful means to advance progressive political claims for marginalized communities.

#### Anticipate conflicts between data protection/digital rights advocates and those from other human rights sectors, and support their resolution.

Many human rights advocates entered the conversation on automated discrimination by referencing equality data. There are already a number of groups who support so-called "big data for social good" (e.g., Human Rights Data Analysis Group), and we can expect clashes between them and those who view such data-oriented strategies with skepticism. Notably, these clashes highlight already existing schisms between restrictions on data collection (e.g., right to be let alone) and restrictions on the use of data (e.g., fair data-driven treatment). The resolution of this conflict with respect to the regulation of sensitive data, in light of equality data and algorithm monitoring, is a crucial challenge for the near future.

### Capacity of organizations

#### Cultivate socio-technical skills and understanding in-house

To fully understand different human rights implications of data-driven technologies organizations need a unique set of skills and expertise. Those organizations wishing to work on automated discrimination would benefit from new staff, trainings, coalitions, and new methods of work to link technically complex automation to processes of social marginalization, exclusion or exploitation.

#### Increase data protection awareness and literacy

Not many CSOs are aware of data protection frameworks. Digital rights groups and the data protection community more broadly have an important role to play in informing the broader human rights community about the strengths and weaknesses of data protection, and the ways in which data protection can support the principle of non-discrimination and other interests beyond privacy rights.

#### Increase discrimination awareness and literacy in data privacy sectors

While data privacy advocates typically convey the importance of data protection for a generalist audience, they may benefit from increased knowledge about the collective consequences of biased data processing and its impact on specific populations.

#### Cultivate strategic partners to identify automated discrimination

Journalists and human rights advocates can work to help expose data-driven systems. Journalists can bring their investigative skills to disentangle many technically oriented problems. Work with whistle-blowers or corporate and public research may also serve as a base for further advocacy. In view of the shrinking world of investigative journalism, human rights groups can also serve as companion investigators.

### Routinize communication between actors across different human rights sectors

Organizations often work in a silo'd environment, making it difficult for them to identify problems and challenges that go beyond their own missions and interests. A regular space for communication and information exchange could inspire groups to fully benefit from the diversity of the field and better align themselves, even in the absence of shared value sets and priorities.

### Methods, tools, and research

#### Work with affected communities

Some communities are more affected by the use of specific technologies than others. To recognize and understand those differences, CSOs and researchers should work closely together with those groups. It is important to identify needs of those communities and challenges they face in situations that involve data-driven technologies.

#### Connect data protection with other human rights claims

Data protection regimes are the crucial, and the GDPR may potentially serve as an instrument for preventing and combating discrimination in automated systems. Yet, while the right to privacy remains central for data protection, other human rights claims matter, and CSOs could consider encouraging cooperation with or coordination between data protection and anti-discrimination authorities. Data protection impact assessments could also help to surface risks of discriminatory harms in automated systems and the best ways to address or prevent them.

#### Encourage data privacy advocates to realize the potential of the GDPR for tackling automated discrimination

Data privacy advocates have an opportunity to expand their work on data protection to include the problem of automated discrimination, thereby focusing resources on a specific area of social justice.

### Encourage use of new assessment tools

Other than data protection, CSOs should explore other approaches to assessing the social implications of data-driven systems. For example, the right to health framework uses both procedural and results indicators, including accessibility and availability of health services and goods within the healthcare systems and participation of specific beneficiaries in the design and implementation of policies. Accepting some limitations of those indicators, these alternate frameworks can potentially serve as inspiration for those focused on automated discrimination.

#### Strategically build a body of empirical evidence of automated discrimination

A range of academic and CSO researchers now investigate automated technologies. However most of them focus on fairness, accountability, and transparency, with a few notable exceptions that involve effects on vulnerable populations. There is still a great need for qualitative and quantitative evidence of the nature of automated discrimination and its specific impacts, particularly in Europe's unique social and political context.

Given the findings cited above and the overall recommendations, we see three potential paths forward for engaging civil society in the debate around automated discrimination:

The first would be to focus on resourcing digital rights or data privacy advocates to undertake automated discrimination as a priority for their work and recognize antidiscrimination as a key concern for data protection. The primary goal of such specific engagement should be to solidify antidiscrimination as part of the application of data protection law and activate the regulatory field more broadly (regulatory authorities and data controllers).

The second would be to focus on resourcing anti-discrimination groups and other groups focused on equity and justice, to recognize "high-tech" discrimination as connected to their core work and values and include data protection as a strategic framework for antidiscrimination, in addition to non-discrimination law.

The third option, which includes the first and second approaches, would be to support a flexible approach to highlighting and problem solving for automated discrimination. This approach—what we refer to as a pluralist approach—recognizes the multiple frames and values that inform different sectors within the human rights field.

# Bibliography

## Books, chapters, and articles in journals

- Barocas, Solon and Selbst, Andrew D. “Big Data’s Disparate Impact,” *California Law Review* 104, no. 671 (2016).
- Breckenridge, Keith. *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the present*, Cambridge: Cambridge University Press, 2014.
- Citron, Danielle K. and Pasquale, Frank A. “The Scored Society: Due Process for Automated Predictions,” *Washington Law Review* 89, no. 1 (2014).
- Danaher, John et al. “Algorithmic governance: Developing a research agenda through the power of collective intelligence,” *Big Data and Society* 4, issue 2 (2017).
- Eubanks, Virginia. *Automating Inequality. How High-Tech Tools Profile, Police, and Punish the Poor*, New York: St. Martin’s Press, 2017.
- Gangadharan, Seeta P. “Digital Inclusion and Data Profiling,” *First Monday* 17, no 5-7 (2012).
- Gangadharan, Seeta P. (ed.), *Data And Discrimination: Collected Essays*, October 2014, <https://na-production.s3.amazonaws.com/documents/data-and-discrimination.pdf>.
- Gillespie, Tarleton. “The Relevance of Algorithms,” in *Media Technologies: Essays on Communication, Materiality, and Society*, edited by Tarleton Gillespie, Pablo J. Boczkowski, and Kirsten A. Foot, Cambridge: MIT Press, 2014.
- Gilliom, John. *Overseers of the poor: Surveillance, Resistance, and the Limits of Privacy*, Chicago: Chicago University Press, 2001.
- Hoboken van, Joris and Kostic, Bojana. “The GDPR’s Potential to Address Data-Driven Discrimination: Bridging Theory and Practice in a European Context (draft)”, (2018), on file with authors.
- Hoffmann, Anna L. “Data, Technology, and Gender: Thinking About (And From) Trans Lives,” in *Spaces for the Future. A Companion to Philosophy of Technology*, edited by Joseph C. Pitt and Ashley Shew, New York: Routledge, 2017.
- Lowry, Stella and Macpherson, Gordon. “A Blot on the Profession,” *British Medical Journal* 296, issue 657 (1988).
- Mittelstadt, Brent D. et al. “The Ethics of Algorithms: Mapping the Debate,” *Big Data and Society* 3, issue 2 (2016).
- Noble, Safiya U. *Algorithms of Oppression*, New York: New York University Press, 2018.
- Norberg, Kathryn. *Rich and Poor in Grenoble 1600-1814*, Berkley: University of California Press, 1985.
- O’Neil, Cathy. *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*, New York: Crown, 2016.
- Otterlo van, Martijn. “A Machine Learning View on Profiling,” in *Privacy, Due Process and the Computational Turn. Philosophers of law Meet Philosophers of Technology*, edited by Mireille Hildebrandt, Katja De Vries, Oxford and New York: Routledge, 2013.
- Pasquale, Frank A. *The Black Box Society*, Cambridge: Harvard University Press, 2015.
- Ringelheim, Julie. “Minority Protection, Data Collection and the Right to Privacy,” *European Yearbook of Minority Issues* 6/7, (2008).

- Seltzer, William and Anderson, Margo. “Using Population Data Systems to Target Vulnerable Population Subgroups and Individuals: Issues and Incidents,” in *Statistical Methods for Human Rights*, edited by Jana Asher, David Banks, Fritz Scheuren, 273-32, New York: Springer, 2008.
- Shneiderman, Ben. “Opinion: The Dangers of Faulty, Biased, or Malicious Algorithms Requires Independent Oversight,” *Proceedings of the National Academy of Sciences of the United States of America* 113, no. 48 (2016).
- Szulc, Lukasz. *Transnational Homosexuals in Communist Poland*, London: Palgrave Macmillan, 2017.
- Wachter-Boettcher, Sara. *Technically Wrong: Sexist Apps, Biased Algorithms, and Other Threats of Toxic Tech*, New York, London: W. W. Norton & Co., 2017.

### Media articles and websites

- “Inwigilacja Osób LGBT. Prokuratura Będzie Zbierać Ich Dane z Urzędów,” *Newsweek Polska*, March 6, 2017, <http://www.newsweek.pl/polska/spoleczenstwo/inwigilacja-osob-lgbt-prokuratura-bedzie-zbierac-ich-dane-z-urzedow,artykuly,406420,1.html>.
- Angwin, Julia, Larson, Jeff, Mattu, Surya, and Kirchner, Lauren. “Machine Bias,” *ProPublica*, May 23, 2016, <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>.
- Buranyi, Stephen. “Rise of the Racist Robots – How AI is Learning All Our Worst Impulses,” *The Guardian*, August 2, 2017, <https://www.theguardian.com/inequality/2017/aug/08/rise-of-the-racist-robots-how-ai-is-learning-all-our-worst-impulses>.
- Civil Rights Defenders, *Swedish State to Pay Historic Damages to the Roma Community*, 2017, <https://www.civilrightsdefenders.org/news/swedish-state-to-pay-historic-damages-to-the-roma-community/>.
- Crawford, Katie. “Think Again: Big Data,” *Foreign Policy*, May 10, 2013, <http://foreignpolicy.com/2013/05/10/think-again-big-data>.
- Duhigg, Charles. “How Companies Learn Your Secrets,” *The New York Times*, February 12, 2012, [https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?\\_r=1&hp=&pagewanted=all](https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?_r=1&hp=&pagewanted=all).
- Gessat, Rachel. “Smart Borders – Europe’s New High-Tech Frontiers,” *Deutsche Welle*, June 3, 2012, <http://www.dw.com/en/smart-borders-europes-new-high-tech-frontiers/a-15995226>.
- Lisicki, Grzegorz. “W Warszawie Powstanie Baza Danych Bezdomnych?” *Gazeta Wyborcza*, March 19, 2010, [http://warszawa.wyborcza.pl/warszawa/1,54420,767784,W\\_Warszawie\\_powstanie\\_baza\\_danych\\_bezdomnych\\_.html](http://warszawa.wyborcza.pl/warszawa/1,54420,767784,W_Warszawie_powstanie_baza_danych_bezdomnych_.html).
- Orrenius, Niklas. “Över Tusen Barn med i Olaglig Kartläggning,” *Dagens Nyheter*, September 23, 2013, <https://www.dn.se/nyheter/sverige/over-tusen-barn-med-i-olaglig-kartlaggning>.
- Schmitz, Gregor P. “Parlamentarier Rebellieren Gegen Finger-Check,” *Der Spiegel*, October 22, 2013, <http://www.spiegel.de/netzwelt/netzpolitik/eu-parlamentarier-rebellieren-gegen-smart-borders-a-929359.html>.
- Thadaneys Israni, Ellora. “When an Algorithm Helps Send You to Prison,” *The New York Times*, October 26, 2017, <https://www.nytimes.com/2017/10/26/opinion/algorithm-compass-sentencing-bias.html>.
- Travis, Alan. “Immigration Officials to Continue to Seek NHS England Patient Data,” *The Guardian*, February 28, 2018, <https://www.theguardian.com/uk-news/2018/feb/28/immigration-officials-to-continue-to-seek-nhs-england-patient-data>.
- Tual, Morgane. “L’intelligence Artificielle Reproduit Aussi le Sexisme et le Racisme des Humains,” *Le Monde*, April 15, 2017, [http://www.lemonde.fr/pixels/article/2017/04/15/quand-l-intelligence-artificielle-reproduit-le-sexisme-et-le-racisme-des-humains\\_5111646\\_4408996.html](http://www.lemonde.fr/pixels/article/2017/04/15/quand-l-intelligence-artificielle-reproduit-le-sexisme-et-le-racisme-des-humains_5111646_4408996.html).

### Official documents and other reports

- Abdikeeva, Alpha. European Network Against Racism, *Measuer, Act, Plan – How Data Collection Can Support Racial*



Equality, (Brussels, 2014), [http://enar-eu.org/IMG/pdf/20084\\_equalitydatacollectionpublication-8-low.pdf](http://enar-eu.org/IMG/pdf/20084_equalitydatacollectionpublication-8-low.pdf).

- Australian Government Information Management Office, *Automated Assistance in Administrative Decision-Making. Better Practice Guide*, Canberra, 2007, <https://www.oaic.gov.au/images/documents/migrated/migrated/betterpracticeguide.pdf>.
- Council of Europe. Committee of Experts on Internet Intermediaries (MSI-NET), *Algorithms and Human Rights. Study on the Human Rights Dimensions of Automated Data Processing Techniques and Possible Regulatory Implications*, DGI (2017)12, Strasbourg, 2018, <https://rm.coe.int/algorithms-and-human-rights-en-rev/16807956b5>.
- European Court of Justice, Maximillian Schrems v Data Protection Commissioner, C-362/14, October 6, 2015, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62014CJ0362>.
- Executive Office of the President, *Big Data: A Report on Algorithmic Systems, Opportunity, and Civil Rights*, May 2016, [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/2016\\_0504\\_data\\_discrimination.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/2016_0504_data_discrimination.pdf).
- IDC, *The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things*, (March 2014), <https://www.emc.com/leadership/digital-universe/2014iview/executive-summary.htm>.
- Makkonen, Timo. European Commission. Directorate-General for Justice and Consumers, *European Handbook on Equality Data*, European Commission, (Brussels, 2016).
- Robinson, David and Bogen, Miranda. Upturn, *Automation and the Quantified Society*, 2017, <https://static1.squarespace.com/static/5a5e62b02aeba5a8b337504b/t/5a78cf2708522924c690d6db/1517866804085/Upturn-NetGain-Report-18.pdf>.

# Appendix 1

## Methodology

Our main research questions for this study are:

What are the norms, values, and practices of European CSOs who are campaigning for equity, social and racial justice, and human rights and whose work is being impacted by the rise of automated computer systems?

What are the challenges and opportunities European CSOs face in addressing discrimination caused by automated computer systems?

What are the potentialities and limitations of advocacy that addresses discrimination—and, more broadly, exclusion, exploitation, and oppression—through the lens of technology?

Broadly speaking, we are interested in the challenges and opportunities that advocates face in understanding the nature of data-driven and automated technologies and in addressing the potential impacts on their communities.

Our research began with the review of academic literature and media coverage of automated and data-driven technologies and their link to discrimination. Based on this review, researchers created an interview protocol that attempts to elicit knowledge, experiences,

opinions, and actions related to the topic of data-driven discrimination. We used semi-structured interviews, adapting questions or probing further dependent upon the experiences and expertise shared by each participant. Owing to the lack of central or consistent data on European civil society organizations, our sampling method relied on a mix of maximum variation techniques and snowballing method. We took into account cultural and social differences between different European regions.

Our sample consists of 30 representatives of 28 different civil society organizations, which operate in 8 countries and at the level of the European Union. A CSO is defined as an “organizational structure whose members serve the general interest through a democratic process, and which plays the role of mediator between public authorities and citizens.”<sup>32</sup> In addition to single- and multi-issue organizations, our sample includes networks or formal associations and foundations. Some of these associations function as so-called umbrella organizations, meaning they operate as a membership-based model and inform and coordinate their members in their EU-level work.

Overall, our sample represents a diverse group, including CSOs with different missions, operational logics, and experiences and expertise with digital technologies or their governance. These organizations fall into four main categories: a) human rights organizations which operate within general human rights framework;

b) digital and consumer rights organizations; c) specific groups advocates (e.g., organizations that advocate for the human rights of migrants, LGBTQ populations, or Roma people); and, d) anti-poverty organizations (organizations that provide services and advocate for specific social policies).

### Type of organizations:

- Specific groups advocates (Roma, migrants, LGBTQ) – 9
- Human rights organizations – 8
- Digital and consumer rights organizations – 7
- Antipoverty organizations – 4

### Area:

- Umbrella organizations within the European Union – 5
- International organizations and networks – 4
- United Kingdom – 5
- Poland – 5
- Germany – 2
- The Netherlands – 2
- Sweden – 2
- Croatia – 1
- Hungary – 1
- Ireland – 1

<sup>32</sup>Eur-lex, glossary of summaries [http://eur-lex.europa.eu/summary/glossary/civil\\_society\\_organisation.html](http://eur-lex.europa.eu/summary/glossary/civil_society_organisation.html)

## List of participants

1. Age UK – Lucy Malenczuk
2. Bits of Freedom – Hans de Zwart
3. Bureau for the Implementation of Equal Treatment – Vera Egenberger
4. Camillian Mission for Social Assistance – Adriana Porowska
5. Campaign Against Homophobia – Paweł Knut
6. Centre for Peace Studies (Croatia) – Cvijeta Senta, Vanja Bakalović
7. Citizens Advice – policy researcher
8. Civil Rights Defenders – John Stauffer
9. European Digital Rights – Diego Naranjo, Maryant Fernández Pérez
10. European Network Against Racism – Claire Fernandez
11. European Roma Rights Centre – Bernard Rorke
12. Federation of German Consumer Organisations – Miika Blin
13. Foundation for Development Beyond Borders – Ksenia Naranovich
14. Helsinki Foundation for Human Rights – Jarosław Jagura
15. Hungarian Civil Liberties Union – Eszter Jovánovics
16. International Lesbian and Gay Association Europe – Sinem Hun
17. Irish Council for Civil Liberties – Elizabeth Farries
18. Irish National Organisation of the Unemployed – Robbert J. Lynch
19. Joseph Rowntree Foundation – Chris Goulden
20. Liberty – Martha Spurrier
21. Migrants' Rights Network – Fizza Qureshi
22. Netherlands Committee of Jurists for Human Rights – Merel Hendrickx
23. Privacy International – Anna Fiedler
24. Swedish Federation for Lesbian, Gay, Bisexual and Transgender Rights – Ulrika Westerlund
25. The European Anti-Poverty Network – Amana Ferro
26. The European Consumer Organisation – David Martín
27. The Polish Society of Anti-Discrimination Law – Krzysztof Śmiszek
28. Transgender Europe – Richard Köhler

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