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Testimony of Daniel Schwarz
On Behalf of the New York Civil Liberties Union
Before the New York City Council Committee on Technology
Regarding Oversight and Regulation of Automated Decision Systems

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The New York Civil Liberties Union (“NYCLU”) respectfully submits the following testimony regarding much-needed oversight and regulation of automated decision systems. The NYCLU, the New York affiliate of the American Civil Liberties Union, is a not-for-profit, non-partisan organization with eight offices throughout the state and more than 180,000 members and supporters. The NYCLU’s mission is to defend and promote the fundamental principles, rights, and values embodied in the Bill of Rights, the U.S. Constitution, and the Constitution of the State of New York. The NYCLU works to expand the right to privacy, increase the control individuals have over their personal information, and ensure civil liberties are enhanced rather than compromised by technological innovation.

Automated decision systems (“ADS”) – software tools or processes that automate, replace, or aid human decision-making – are widely used to administer services, allocate resources, and make inferences about individuals, groups, or places. Whether across government agencies or in private businesses, their ubiquity and opaque deployment risk severely undermining the civil, human, and privacy rights of New Yorkers. The use of ADS is often accompanied by an acute power imbalance between those deploying these systems and those affected by them, particularly given that ADS operate without transparency or even the most basic legal protections. Especially where New Yorker’s fundamental rights are at stake – such as in welfare, education, employment, housing, health care, the family regulation (or child welfare) system, or the criminal legal system, these technologies all too often replicate and amplify bias, discrimination, and harm towards populations who have been and continue to be disproportionately impacted by bias and discrimination: women, Black, Indigenous, and all people of color, religious and ethnic minorities, LGBTQIA people, people living in poverty, people with disabilities, people who are or have been incarcerated, and other marginalized communities.

The legislation in front of the Committee, Intro. 1894-2020, laudably attempts to tackle bias in automated employment decision systems. Like many of the aforementioned high-stake areas, ADS in employment and hiring are in urgent need of transparency, oversight, and regulation. Job applicants should not need to worry about being screened by a racist or sexist algorithm when seeking employment. Unfortunately, this bill would not create meaningful protections against such scenarios but instead would give cover to vendors to continue to sell discriminatory systems and offer negligible protection to applicants. The NYCLU therefore opposes Intro. 1894-2020 in its current form and makes recommendations to strengthen the legislation.

ADS result in decisions that impact New Yorker's lives. This Council must act to provide transparency and accountability to automated employment technologies, and ensure that ADS do not operate to digitally circumvent New York City's laws against discrimination.

The Need for Regulation of Automated Decision Systems

While the use of ADS undoubtedly boosts speed and scale, such efficiency is only valuable if the underlying decisions are desirable. Even with the little public information available about ADS, researchers and experts consistently reveal their failures of accuracy and neutrality. Many studies have challenged their opaque or "black box" operation¹ and provided evidence of harmful,² discriminatory,³ sexist,⁴ and racist⁵ outcomes.

¹ See e.g.: CATHY O'NEIL, WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY (2016); FRANK PASQUALE, THE BLACK BOX SOCIETY (2015).

² See e.g.: VIRGINIA EUBANKS, AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR (2018); Ed Pilkington, *Digital dystopia: how algorithms punish the poor*, THE GUARDIAN, October 14, 2019, <https://www.theguardian.com/technology/2019/oct/14/automating-poverty-algorithms-punish-poor> (last visited Nov 10, 2020); Colin Lecher, *A healthcare algorithm started cutting care, and no one knew why*, THE VERGE (2018), <https://www.theverge.com/2018/3/21/17144260/healthcare-medicaid-algorithm-arkansas-cerebral-palsy> (last visited Nov 10, 2020).

³ SOLON BAROCAS & ANDREW D. SELBST, *Big Data's Disparate Impact* (2016), <https://doi.org/10.2139/ssrn.2477899> (last visited Nov 10, 2020).

⁴ See e.g.: Jeffrey Dastin, *Amazon scraps secret AI recruiting tool that showed bias against women*, REUTERS, October 10, 2018, <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G> (last visited Nov 10, 2020); Galen Sherwin, *How Facebook Is Giving Sex Discrimination in Employment Ads a New Life*, AMERICAN CIVIL LIBERTIES UNION, <https://www.aclu.org/blog/womens-rights/womens-rights-workplace/how-facebook-giving-sex-discrimination-employment-ads-new> (last visited Nov 10, 2020).

⁵ See e.g.: Kate Crawford, *Opinion | Artificial Intelligence's White Guy Problem*, THE NEW YORK TIMES, June 25, 2016, <https://www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html> (last visited Nov 10, 2020); Alistair Barr, *Google Mistakenly Tags Black People as 'Gorillas,' Showing Limits of Algorithms*, WSJ (2015), <https://blogs.wsj.com/digits/2015/07/01/google-mistakenly-tags-black-people-as-gorillas-showing-limits-of-algorithms/> (last visited Jan 15, 2020).

Software systems are often wrongly perceived as more neutral than humans or as offering a scientific and objective truth.⁶ Their proponents are able to make these assertions because the vast majority of ADS are opaque systems, secretly deployed and shielded from independent review due to their proprietary nature. This secrecy obscures the potential errors, outright flaws, biased data, subjective decisions, and personal choices that find their way into these systems. Every ADS is a product of human design, input, and operation.

Obtaining access to ADS's underlying source code and data is difficult and resource intensive, but absolutely critical to understanding the extent to which errors occur and whether they are likely to cause discriminatory harm. For example, it was revealed that a Medicaid ADS in Arkansas had failed to correctly assess care needs of patients with cerebral palsy or diabetes: a fact only discovered through lengthy litigation and subsequent disclosure of the code.⁷ And here in New York City, an independent review of the source code of a DNA analysis tool used by the office of the chief medical examiner raised serious questions about its validity, including whether the code may have been intentionally skewed to create more matches.⁸

Many automated systems purport to predict the future by observing the past. Among them are “risk assessment tools,” designed to use past policing and court data to “predict” the future behavior of an individual criminal defendant. Specifically, risk assessment tools attempt to determine which attributes are shared by people who previously failed to show up to court. Certain weights are placed on each of the attributes to produce a formula and “score” a person’s future risk of flight. Risk assessment tools reflect a troubling philosophy toward criminal justice policy: Using past cases to determine what might happen in future cases disregards time-specific influences that may have affected prior case outcomes and freezes a government judgment in the realities of the past. Critically, it also strips the person who is awaiting trial of independent agency and the ability to make the case that they will appear in court.

But even those who philosophically agree with using past statistics to predict future individual human behavior acknowledge that the value of such a predictive system lies in the value of the data input into it. When an ADS deploys machine learning that relies on large historic datasets to train the underlying models, the quality of that underlying data is of paramount importance. If that data includes false or biased data, every output will repeat this pattern and in turn result in false and biased decision-making. In the context of policing, utilizing data from unconstitutional and racially biased stop-and-frisk practices by the NYPD will create outputs reflecting these practices.⁹ This behavior is commonly known by the

⁶ danah boyd & Kate Crawford, *Critical Questions for Big Data: Provocations for a cultural, technological, and scholarly phenomenon*, 15 INFORMATION, COMMUNICATION & SOCIETY 662–679 (2012).

⁷ Litigating Algorithms 2018, AI NOW INSTITUTE, <https://ainowinstitute.org/litigatingalgorithms.pdf>.

⁸ Lauren Kirchner, *Thousands of Criminal Cases in New York Relied on Disputed DNA Testing Techniques*, PROPUBLICA (2017), <https://www.propublica.org/article/thousands-of-criminal-cases-in-new-york-relied-on-disputed-dna-testing-techniques> (last visited Nov 10, 2020).

⁹ Rashida Richardson et al., *Dirty Data, Bad Predictions: How Civil Rights Violations Impact Police Data, Predictive Policing Systems, and Justice*, 94 N.Y.U. L. REV. ONLINE 192 (2019), <https://ssrn.com/abstract=3333423>.

computer-science idiom “garbage in, garbage out,” or in this scenario, as Sandra Mayson coined, “bias in, bias out.”¹⁰

In another recent example, researchers discovered that a widely used health care algorithm used to identify patients’ health risks failed to identify many Black patients, making them less likely to be enrolled for medical treatment.¹¹ And where these systems operate in the dark, people may not even realize that they are suffering at the hands of a flawed machine-learning system: one ADS in Indiana blocked hundreds of thousands of people from receiving vital support services and left them struggling to challenge these decisions.¹²

Given these enormous human impacts that automated systems make on our communities – and the very real possibility of simply automating existing human error and bias – meaningful regulation is the bare minimum our democracy demands. The growing power imbalance between people affected by ADS and those who deploy them is at its height when affected people are not even aware that their lives have been impacted by an ADS. In particular in governmental decision-making, access to information about what systems are in use, whether their accuracy has been studied and their impact assessed, and the mechanisms to obtain redress for harm is essential for the public to be able to engage in a fully-informed discussion regarding what role – if any – these systems should have in our society.

In November 2018, New York City joined the Cities Coalition for Digital Rights and signed its Declaration. It clearly states that people have “sovereignty over their data, including the right to know what happens to their data, who uses it and for what purposes. [...] Everyone should have access to understandable and accurate information about the technological, algorithmic and artificial intelligence systems that impact their lives, and the ability to question and change unfair, biased or discriminatory systems.”¹³ We urge the Council to uphold this promise by enacting legislation that will serve our democratic values and create the regulatory mechanisms necessary to protect against harmful and discriminatory algorithms.

¹⁰ Sandra G. Mayson, *Bias In, Bias Out*, 128 YALE LAW JOURNAL (2019), <https://www.yalelawjournal.org/article/bias-in-bias-out> (last visited Nov 10, 2020). Archived at: <http://archive.is/nzP1D>.

¹¹ See: Beth Haroules & Simon McCormack, *How an Algorithm Puts Black People’s Health in Danger*, NEW YORK CIVIL LIBERTIES UNION (2019), <https://www.nyclu.org/en/news/how-algorithm-puts-black-peoples-health-danger> (last visited Jan 15, 2020); Ziad Obermeyer et al., *Dissecting racial bias in an algorithm used to manage the health of populations*, 366 SCIENCE 447–453 (2019).

¹² Alyssa Edes & Emma Bowman, “Automating Inequality”: *Algorithms In Public Services Often Fail The Most Vulnerable*, NPR.ORG (2018), <https://www.npr.org/sections/alltechconsidered/2018/02/19/586387119/automating-inequality-algorithms-in-public-services-often-fail-the-most-vulnerable> (last visited Jan 16, 2020); Virginia Eubanks, *We created poverty. Algorithms won’t make that go away*, THE GUARDIAN, May 13, 2018, <https://www.theguardian.com/commentisfree/2018/may/13/we-created-poverty-algorithms-wont-make-that-go-away> (last visited Nov 10, 2020).

¹³ Declaration of Cities Coalition for Digital Rights, https://citiesfordigitalrights.org/assets/Declaration_Cities_for_Digital_Rights.pdf.

To close the overwhelming information gap around ADS in New York City, the Council could strengthen and pass Intro. 1806-2019. This legislation would require city agencies to provide basic information about every automated decision system in use. Such disclosures will help the public and policymakers alike understand the current terrain, craft better and more targeted oversight mechanisms, aid people in finding help when they feel they are unfairly impacted by a decision, and drive public education opportunities. Other cities have shown the feasibility of similar efforts: Amsterdam and Helsinki recently launched their respective ADS registries, listing descriptions about their governmental automated decision systems, detailed information regarding the datasets used and how they are processed, assessments for discrimination and harm, and steps for human review.¹⁴

Yet transparency is only a first step and foundation for more comprehensive and targeted regulation. Effective action will necessarily include mandatory, independent racial and non-discrimination impact assessments, data privacy audits, and holistic consultation with domain experts and people directly affected by the consequences of any ADS – in particular from marginalized groups – prior to any ADS rollout and throughout the entire life cycle. Finally, the Council should recognize that technologies showing significant discriminatory impact against any class protected under the New York City Human Rights Law require outright bans or moratoria – in particular in high-stake areas, including, but not limited to, facial recognition.

Unfortunately, the City’s forays into ADS issues have fallen short of these goals. The NYCLU and our partners repeatedly sought to offer input and recommendations through open letters in January 2018,¹⁵ August 2018,¹⁶ March 2019,¹⁷ a comprehensive Shadow Report in December 2019,¹⁸ and have testified before this Committee in January 2020.¹⁹

¹⁴ See: City of Amsterdam Algorithm Register, <https://algoritmeregister.amsterdam.nl/en/ai-register/> and City of Helsinki AI Register, <https://ai.hel.fi/en/ai-register/> (last visited Nov 10, 2020).

¹⁵ Letter to Mayor de Blasio: Regarding NYC Automated Decision Systems Task Force, NEW YORK CIVIL LIBERTIES UNION (2018), <https://www.nyclu.org/en/publications/letter-mayor-de-blasio-regarding-nyc-automated-decision-systems-task-force> (last visited Nov 10, 2020).

¹⁶ Open Letter to Automated Decision Systems Task Force, NEW YORK CIVIL LIBERTIES UNION (2018), <https://www.nyclu.org/en/publications/open-letter-automated-decision-systems-task-force> (last visited Nov 10, 2020).

¹⁷ Letter to the Automated Decision Systems Task Force - March 1, 2019, NEW YORK CIVIL LIBERTIES UNION (2019), <https://www.nyclu.org/en/publications/letter-automated-decision-systems-task-force-march-1-2019> (last visited Nov 10, 2020).

¹⁸ See: Rashida Richardson, ed., *Confronting Black Boxes: A Shadow Report of the New York City Automated Decision System Task Force*, AI NOW INSTITUTE, December 4, 2019, <https://ainowinstitute.org/ads-shadowreport-2019.html>.

¹⁹ NYC Council Testimony In Relation to Automated Decision Systems Used by Agencies, NEW YORK CIVIL LIBERTIES UNION, Jan 22, 2020, https://www.nyclu.org/sites/default/files/field_documents/20200122-nyclu-testimony-automateddecisionsystems.pdf.

Intro 1894-2020 - Sale of Automated Employment Decision Tools

The NYCLU commends the sponsor and the Council for raising and attempting to tackle the issue of bias and discrimination in automated employment decision tools. Unfortunately, Intro. 1894-2020 does not sufficiently achieve this goal and we oppose it in its current form, because it would entrench ineffective regulation and could increase the use of harmful ADS technology.

Intro. 1894-2020 erroneously places the sole focus on the *sale* of automated employment decision tools. Any entity that already operates a hiring algorithm would be able to continue using it without any bias audit. Similarly, if a tool is developed in-house – as with Amazon’s widely reported sexist hiring ADS²⁰ – it would not be affected by this legislation.

The legislation would only cover a subset of hiring technologies due to the limited definition of automated employment decision tools. While ADS that rely on statistical theory, such as machine learning, are an important area that requires inclusion, many other assessments and automated tools fall outside this legislation’s framing. Furthermore, the bill is drafted to include only the filtering of preferred candidates. Instead, it should include all applicants and employment decisions, including the rejection, removal, and rating of candidates.

At the heart of this legislation lies the mandated bias audit. Unfortunately, the specifications and mandate are too limited, giving much leeway to vendors and therefore risking a biased bias audit. The legislation does not specify the entities who would conduct the bias audits. If vendors are left to their own devices, these audits will hold little value and will suffer from their own biases – vendors have a financial incentive to conduct the audits in-house or to contract with friendly third parties and report no bias. Instead the bill should clearly set out an independent process developed by experts and stakeholders to ensure meaningful testing and assessment as well as mandatory disclosures to the public.

The legislation also includes a notice requirement to candidates, which would require an employer to tell a candidate that an ADS was used to screen a candidate and what “job qualifications or characteristics [...] such tool was used to assess in the candidate.” This notice is inadequate, because it is unlikely to provide an applicant who was subjected to a biased algorithm with the information they need to understand whether they were discriminated against. Moreover, because some ADS rely on machine learning, meaningful information regarding the qualifications or characteristics they use will be difficult to obtain.

To ensure actual accountability for ADS regulation, a private right of action must be available to affected applicants or workers. Without it, enforcement would be improbable due to the all-too-real capacity limitations of the New York Commission on Human Rights. Furthermore, the Council should mandate the provision of attorneys’ fees to New Yorkers who successfully vindicate their right to be free from discriminatory employment decisions. Lastly,

²⁰ Dastin, *Amazon scraps secret AI recruiting tool that showed bias against women*, *supra* note 4.

the legislation must include a non-retaliation provision for workers or applicants who exercise their rights protected under this bill.

Every New Yorker has a right to know whether and how automated decision systems are impacting our lives and livelihoods. While we appreciate that Intro. 1894 takes steps to regulate automated employment decision tools, it falls short of ensuring that New Yorkers are free from employment bias masquerading as neutral decision-making. This legislation must be amended and expanded in order to deliver on its promise to mitigate bias and bring justice and equity to the world of hiring ADS. Moreover, as described above, the Council must regulate ADS outside of the employment context as well. Of particular concern are ADS in government that make high-stakes decisions impacting the constitutional or legal rights of New Yorkers.

Conclusion

We thank the Committee for the opportunity to provide testimony and for recognizing the need for oversight and regulation of automated decision systems. The NYCLU urges the Council to pass legislation to create transparency and protections ensuring fair and equitable use of automated decision systems. Unfortunately, Intro. 1894-2020 does not achieve these goals in its current form.