

Assessment Report

New York City Local Law No. 144

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Summary

- The automated employment decision tool (AEDT) described in this review is the AdeptID ensemble model suite (AdeptID Tool) which provides scores that describe the degree of fit between people and jobs. This review evaluated the tool concerning the requirements of NYC Local Law No. 144 (LL-144) [1].
- AdeptID used the Credo AI Responsible AI Governance Platform to perform an assessment of the tool and generate the AdeptID Report. This report incorporates the LL-144 requirements along with the supporting evidence provided by AdeptID to demonstrate compliance.
- Credo AI reviewed the AdeptID Report concerning the applicability of LL-144 to the AdeptID Tool and the conformity of the AdeptID Report.
- The review concludes that the assessment conforms to the requirements of LL-144. It also does not exhibit disparate impact based on sex and race/ethnicity as defined by 4/5ths Rule from the U.S. Equal Employment Opportunity Commission [2].

Introductions

About Credo AI

Credo.AI Corp (Credo AI) is on the mission to empower companies to deliver Responsible AI at scale via its Credo AI Responsible AI Governance Platform (the Platform) - a multi-stakeholder SaaS platform for managing AI risk and compliance at scale. AI Governance is the process of ensuring that AI systems are responsibly designed, developed, and deployed in alignment with human values and in compliance with applicable laws, regulations, industry standards, government mandates, etc. The Platform provides Responsible AI assessments and context-driven governance to ensure compliant, fair, transparent, and auditable development, procurement, and use of AI.

About AdeptID

AdeptID is the developer of machine-learning-powered talent-matching software to support hidden talent in the workforce. AdeptID's matching engine makes it easy for any application to match talent to in-demand jobs and training by surfacing underlying, transferable skills earned in seemingly different roles.

About the Engagement

AdeptID used the Credo AI Responsible AI Governance Platform (the Platform) to perform a bias assessment for the AdeptID Tool which provides scores that describe the degree of fit between people and jobs.

Credo AI also served as a third-party reviewer to review the AdeptID Report generated by AdeptID using the Platform. The review was performed in partnership with AdeptID and, therefore, is not an independent review. It is based solely on the data and information provided by AdeptID. Credo AI accepted AdeptID's assurances concerning the integrity and validity of the datasets. This review is intended solely for the information and use of AdeptID, customers of AdeptID subject to risks arising from the use of the tools, and regulators.

Applicability of LL-144

Assessment Target

The assessment and review target is the AdeptID core model (AdeptID Tool) which provides scores that describe the degree of fit between people and jobs. These scores are returned to developers of enterprise applications via an API endpoint. These recommendations are then integrated into a variety of enterprise tools including:

- Applicant Tracking Systems & Human Capital Management Systems
 - Use Case - Rank and evaluate candidates
 - Use Case - Rank and explore jobs/career opportunities
- Talent Marketplaces & Job Boards
 - Use Case - Rank and evaluate candidates
 - Use Case - Rank and explore jobs/career opportunities
- Training Provider Administrator Dashboards
 - Use Case - Rank and evaluate candidates
 - Use Case - Rank and explore jobs/career opportunities

Applicability

LL-144 requires that any “automated employment decision tool” used to make employment decisions on candidates or employees in New York City must undergo an annual independent bias audit. The law defines “automated employment decision tool” as “any computational process, derived from machine learning, statistical modeling, data analytics, or artificial intelligence, that issues simplified output, including a score, classification, or recommendation, that is used to substantially assist or replace discretionary decision making for making employment decisions that impact natural persons.”

The law further clarify that the phrase “to substantially assist or replace discretionary decision making” means:

- i. to rely solely on a simplified output (score, tag, classification, ranking, etc.), with no other factors considered; or
- ii. to use a simplified output as one of a set of criteria where the simplified output is weighted more than any other criterion in the set; or
- iii. to use a simplified output to overrule conclusions derived from other factors including human decision-making

Based on the legal definitions and the information provided to us by AdeptID on the AdeptID Tool, Credo AI believes that LL-144 is applicable in this case and that the AdeptID Tool needs to undergo an annual bias audit. The tool provides scores that describe the degree of fit between people and jobs. Given the current definition of “automated employment decision tool,” it is reasonable to conclude that the AdeptID Tool could be considered an “automated employment decision tool.”

Assessment Conformity

LL-144 requires that disparate impact assessment is performed for demographic attributes of sex, race/ethnicity, and the intersectional category of sex and race/ethnicity. They are included in the disparate impact assessments conducted by AdeptID for the AdeptID Report.

LL-144 requires that historical data be used to conduct a bias audit. If there is insufficient historical data available to conduct a statistically significant bias audit, historical data of other employees or employment agencies OR test data can be used with an explanation of the source and description of the data. AdeptID does not have access to a historical dataset containing applicant pools and demographic information and thus uses test data. They licensed a dataset of profiles containing work histories collected from websites like LinkedIn and the description are provided in the AdeptID Report.

The demographic data used in the test data is from two sources: 1) some demographic data is self-reported from the data they have licensed for the assessment, and 2) and some demographic data is human-annotated using crowd workers. The details are included in the AdeptID Report.

LL-144 requires selection rate and demographic parity ratio metrics for the evaluation of disparate impact. The AdeptID assessments use and report values for these metrics, and are, therefore, in line with the requirements of LL-144. The AdeptID Report is also transparent about the excluded populations and demographic groups due to their unknown demographics or small sample, and includes their statistics. Demographic parity ratios reported for sex, race/ethnicity, and intersectional sex and race/ethnicity are based on 2, 4, and 3 subgroups, respectively.

LL-144 does not set any threshold requirements for the bias metrics. The AdeptID Report compares the values with the 4/5ths Rule from the U.S. Equal Employment Opportunity Commission [2]. It is a common rule of thumb under which a selection rate for any demographic group that is less than 80% of the selection rate for the group with the highest selection rate is generally considered as a substantially different rate of selection. The reported demographic parity ratio values all meet this rule.

The review concludes that the assessment conforms to the requirements of LL-144.

References

[1] New York City Department of Consumer and Worker Protection “Local Law 144: Automated Employment Decision Tools” Effective date: July 5, 2023.

[2] U.S. Equal Employment Opportunity Commission “Adoption of Questions and Answers To Clarify and Provide a Common Interpretation of the Uniform Guidelines on Employee Selection Procedures” Federal Register, / Vol. 44, No. 43 / March 2, 1979.