



January 15, 2022

Submitted via electronic mail (BiometricRFI@ostp.eop.gov)

RE: OSTP RFI on Public and Private Sector Uses of Biometric Technologies

On behalf of the NAACP Legal Defense & Educational Fund, Inc. (“LDF”), we offer the following comments in response to the Office of Science and Technology Policy’s (“OSTP”) Notice of Request for Information (“RFI”) on Public and Private Sector uses of Biometric Technologies.¹ This comment responds to the RFI by addressing the exhibited and potential harms of biometric technologies used for individual identification and the inference of emotion, disposition, character, or intent, and its racial ramifications.

Founded by Thurgood Marshall in 1940, LDF is the nation’s first and premier civil rights legal organization devoted to racial justice. Since its founding, LDF has worked at the national, state, and local levels to pursue racial justice and eliminate structural barriers for Black people in America in the areas of criminal justice, economic justice, education, and political participation.² In each of these areas, emerging technologies, including artificial intelligence (“AI”) can be used in ways which threatened the rights, freedoms, and dignity of Black people and other marginalized communities. In collaboration with advocates, activists, and attorneys, LDF has challenged the use of technology, including biometric technologies and automation, in a racially discriminatory manner³ and has also developed principles and guardrails to protect against their discriminatory use.⁴ With this experience, we submit this comment in response to the RFI.

¹ Notice of Request for Information (RFI) on Public and Private Sector Uses of Biometric Technologies, 86 Fed. Reg. 56,300 (Oct. 8, 2021) <https://www.govinfo.gov/content/pkg/FR-2021-10-08/pdf/2021-21975.pdf>.

² About Us, NAACP LEGAL DEF. & EDUC. FUND, <https://www.naacpldf.org/about-us/>.

³ See e.g., NAACP Legal Def. & Educ. Fund, SEPT 10, 2021 Comments on NIST Special Publication 1270 “A Proposal for Identifying and Managing Bias in Artificial Intelligence” letter, <https://www.naacpldf.org/wp-content/uploads/2021-09-10-LDF-Comments-in-Response-to-NIST-Special-Publication-1270-Identifying-and-Managing-AI-Bias-.pdf>; LDF Sends Letter Expressing Concerns Over NYPD’s Compliance with the P.O.S.T. Act (February 24, 2021), <https://www.naacpldf.org/news/ldf-sends-letter-expressing-concerns-over-nypds-compliance-with-the-post-act/>; Press Release, NAACP Legal Def. & Educ. Fund, Civil Rights Groups Call for Strong Guardrails in Hiring Assessment Technologies (July 29, 2020) <https://www.naacpldf.org/press-release/civil-rights-groups-call-for-strong-guardrails-in-hiring-assessment-technologies/>; Letter from LDF, AI Blindspot, et al. to Fed. Banking Reg. Agencies, (July 1, 2021), https://nationalfairhousing.org/wp-content/uploads/2021/07/Federal-Banking-Regulator-RFI-re-AI-Advocate-Letter_FINAL_2021-07-01.pdf; Letter from Megan Haberle, Sr. Pol’y Couns., NAACP Legal Def. & Educ. Fund, to Kathleen M. Pennington, Acting Assoc. Gen. Couns. for Fair Hous., (Aug. 23, 2021), <https://www.regulations.gov/comment/HUD-2021-0033-0215>; Testimony of Janai Nelson before the NYC Automated Decision Systems Task Force (April 30, 2019), <https://www1.nyc.gov/assets/adstaskforce/downloads/pdf/ADS-Public-Forum-Comments-NAACP-LDF.pdf>.

⁴ Principles, Civil Rights Privacy and Technology Table, <https://www.civilrightstable.org/principles/> and *Civil Rights Principles for Hiring Assessment Technologies*, July 2020, THE LEADERSHIP CONFERENCE FOR CIVIL AND HUMAN RIGHTS, http://civilrightsdocs.info/pdPrif/policy/letters/2020/Hiring_Principles_FINAL_7.29.20.pdf.

I. EDCI Tools Are Inherently Flawed and Pose Great Risks to Marginalized Communities

The use of biometric tools that aim to infer human emotion, disposition, character, or intent (“EDCI” or “emotion tools”) is rapidly increasing in the government and private sectors, despite broadly identified concerns related to EDCI’s technological flaws, scientific invalidity, and the ability of these tools to entrench existing racial and other bias. These risks underscore the urgent and critical need for federal intervention and oversight.

- a. *EDCI tools make broad assumptions about human emotion and behavior that are not scientifically supported.*

Biometric technologies cannot accurately interpret all human emotion based on biological expression across all populations.⁵ Rather, the use of EDCI tools assumes that a set of observable biological reactions, such as facial expressions, changes in tone of voice, or a spike in heart rate correlates to a defined list of human sentiments and characteristics.⁶ This blanket assumption, however, is inherently flawed because it ignores the complexity of humans, their biology, and their emotions.⁷

In fact, psychologists and researchers have consistently noted the absence of a scientific basis supporting the use of EDCIs.⁸ This is particularly because an array of social, cultural, and

⁵ Cheryl Teh, ‘Every smile you fake’ — an AI emotion-recognition system can assess how ‘happy’ China’s workers are in the office, INSIDER (June 15, 2021), <https://www.insider.com/ai-emotion-recognition-system-tracks-how-happy-chinas-workers-are-2021-6> (“It would be unlikely for an algorithm to accurately understand humans’ highly complex emotional state via facial expressions alone.”); Lisa Feldman Barrett, Ralph Adochs, and Stacy Marsella, Emotional Expressions Reconsidered: Challenges to Inferring Emotion From Human Facial Movements, *Psychological Science in the Public*, <https://journals.sagepub.com/stoken/default+domain/10.1177%2F1529100619832930-FREE/pdf>; Automatic Analysis of Facial Expressions: The State of the Art, 22 IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE 1424, 1425—27 (December 2000) <https://ibug.doc.ic.ac.uk/media/uploads/documents/PAMifinal.pdf> (listing a variety of problems with automating facial expression analysis, including difficulty with the interpretation of facial expressions and the inability of AI to capture situation- and individual-specific data regarding emotional expression).

⁶ Teh, *supra* note 5; Gary D. Friedman & Thomas McCarthy, *Employment Law Red Flags in the Use of Artificial Intelligence in Hiring*, AM. BAR. ASS’N. (Oct. 1, 2020) https://www.americanbar.org/groups/business_law/publications/blt/2020/10/ai-in-hiring/.

⁷ Bibi Imre-Millei, *No Lies: The Problem with Biometric Emotion Detection*, OBSERVER (Mar. 20, 2021) <https://theobserver-qiaa.org/no-lies-the-problem-with-biometric-emotion-detection>; Jayne Williamson-Lee, *Amazon’s A.I. Emotion-Recognition Software Confuses Expressions for Feelings*, MEDIUM (Oct. 28, 2021) <https://onezero.medium.com/amazons-a-i-emotion-recognition-software-confuses-expressions-for-feelings-53e96007ca63>. (“Any company which currently claims to recognize emotion is confusing measurements (e.g., a scowl) with the interpretation of what those measurements mean (e.g., anger) . . . One problem with this approach is that the posed faces in the images represent stereotypes of emotions — imitations of what we *think* a person expressing an emotion would look like) (emphasis added).

⁸ See Barrett, *supra* note 5 at 47-48 (“At the moment, the science of emotion is ill-equipped to support any of these [emotion-reading technological] initiatives. So-called emotional expressions are more variable and context-dependent than originally assumed, and most of the published research was not designed to probe this variation and characterize this context dependence. As a consequence, as of right now, the scientific evidence offers less actionable guidance to consumers than is commonly assumed. *In fact, our review of the scientific evidence indicates that very little is known about how and why certain facial movements express instances of emotion, particularly at a level of detail sufficient*

environmental factors influence one's emotions and behaviors, and, therefore, biological expressions fluctuate based on the many factors that create one's own world experience.⁹ Put differently, "[n]o matter how well an algorithm can catalogue each tiny movement in a face, each spike in blood pressure, each fiddle of the hands, the link between expression and actual thoughts, emotions, and intentions is social and cultural."¹⁰ For example, marginalized groups may alter or conceal their natural biological expressions or emotions in white-majority or privileged spaces.¹¹ A Black person encountering a police officer may feel and behave differently than an individual whose community has not experienced a collective history of violence at the hands of law enforcement.¹² Similarly, women are more socialized to smile in the presence of men, even if they feel discomfort.¹³ Because EDCI tools cannot account for every cultural and social influence that informs an individual's emotions and behavior, these tools cannot dependably discern the vast range of human emotions from biological expressions, and neatly correlate them to a defined list that accurately identifies ways in which all people behave and emote.¹⁴ Accordingly, using biometric tools to infer human intention or read emotions remains seriously flawed and unreliable,¹⁵ at best.

for such conclusions to be used in important, real-world applications.") (emphasis added); Kate Crawford, Roel Dobbe, et al., *2019 Report*, AI NOW (Dec. 2019) at 12 https://ainowinstitute.org/AI_Now_2019_Report.pdf, ("Affect recognition, which claims to 'read' our inner emotions by interpreting physiological data such as the micro-expressions on our face . . . has been a particular focus of growing concern in 2019—not only because it can encode biases, *but because we lack a scientific consensus as to whether it can ensure accurate or even valid results.* This was confirmed in 2019 by the largest metastudy to date on the topic.") (citing Barrett, *supra* note 5) (emphasis added).

⁹ See e.g., Dave Zielinski, *Facial Analysis Technology in the Workplace Brings Risks*, SHRM (July 9, 2020), <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/facial-analysis-technology-workplace-brings-risks.aspx> ("To understand micro-expressions . . . would require a deeper understanding of that one person's behaviors and not just a crowdsourced base line of everyone's expected expressions." Even in fairly homogenous cultures, it is clear that some people may use an expression to communicate an emotion, and another may use the same expression while feeling something entirely different.).

¹⁰ Imre-Millei, *supra* note 7.

¹¹ Aysa Gray, *The Bias of 'Professionalism' Standards*, STANFORD SOCIAL INNOVATION REVIEW (Jun. 4, 2019), <https://doi.org/10.48558/TDWC-4756> ("The standards of professionalism . . . are heavily defined by white supremacy culture—or the systemic, institutionalized centering of whiteness. In the workplace, white supremacy culture explicitly and implicitly privileges whiteness and discriminates against non-Western and non-white professionalism standards related to dress code, speech, work style, and timeliness.").

¹² See e.g., *United States v. Knights*, 989 F.3d 1281, 1296 (11th Cir. 2021), *cert. denied*, No. 21-198, 2021 WL 5869416 (Dec. 13, 2021) (Rosenbaum, J., concurring) ("Because of these circumstances, Black Americans' lived experiences make them materially less likely than white Americans to believe they have the freedom to leave an interaction with the police. . . . For Black citizens, the fear of violence often overlays the entire law-enforcement encounter.").

¹³ Ursula Hess, Reginald B. Adams, Jr., et al., *Who may frown and who should smile? Dominance, affiliation, and the display of happiness and anger*, 19 COGNITION & EMOTION, 515, 516 (2005) (evaluating the impact of social roles, status, and gender on emotional expression). "Women feel that a failure to smile will be socially disapproved." *Id.* Further, "women generally have less power or status than men and . . . smiling in women is therefore a form of appeasement behaviour that is adaptive." *Id.* See also Marvin A. Hecht & Marianne LaFrance, *License or Obligation to Smile: The Effect of Power and Sex on Amount and Type of Smiling*, 24 PERSONALITY & SOC. PSYCH. BULLETIN 1332 (1998) (finding social power and gender affect the amount and type of smiling in an experimental setting).

¹⁴ See Friedman & McCarthy, *supra* note 6; see also Will Knight, *Job Screening Service Halts Facial Analysis of Applicants*, WIRED (Jan. 12, 2021, 8:00 AM) <https://www.wired.com/story/job-screening-service-halts-facial-analysis-applicants/> (noting empirical emotional analysis research suggests "it is a bad idea to make psychological inferences, and therefore determine people's outcomes, based on facial data alone").

¹⁵ Zielinski, *supra* note 9 (quoting Frida Polli, CEO of Pymetrics, a New York based AI company, who described "the science of the technology" as "extremely new and not well-validated"); see also Tom Simonite, *The Best Algorithms Struggle to Recognize Black Faces Equally*, WIRED (July 22, 2019), <https://www.wired.com/story/best-algorithms->

- b. *EDCI tools have a high risk of excluding marginalized communities from critical economic and other opportunities, subjecting them to long-lasting harms.*

In addition to its technological failings, the use of EDCIs pose significant risks of magnifying and reinforcing already-present racial and other biases and discrimination.¹⁶ And because biometric technologies are increasingly used to determine access to employment,¹⁷ education,¹⁸ housing,¹⁹ and other key services,²⁰ they essentially function as technological gatekeepers to key opportunities in these sectors. This, coupled with historical and contemporary systemic discrimination, means the use of EDCIs may exclude marginalized communities from access to opportunities in the most consequential areas: those that affect an individual's ability to earn a livelihood, build stability, and experience safety.

For example, many employers use EDCI tools to determine if an applicant should be offered employment or promotion.²¹ However, for decades Black workers have remained severely underrepresented in the highest-paying employment industries such as information technology, and professional and financial services²² and overrepresented in lower-paying service industries, such as retail, healthcare, and food services.²³ Today, EDCI tools, like HireVue's employment

[struggle-recognize-black-faces-equally/](#), (noting that testing of Idemia, a facial recognition software used by U.S. police, consistently produced higher match errors for women than men, reflecting a widespread difficulty of AI software to distinguish human faces).

¹⁶ See e.g., Rashida Richardson, *Racial Segregation and the Data-Driven Society: How Our Failure to Reckon with Root Causes Perpetuates Separate and Unequal Realities*, 36 BERKLEY TECH. L. REV. 101, 107 (2021) (“[S]ince White Americans dominate the technology sector, and, as the most research suggests, primarily benefit from racial segregation, it is important to evaluate White Americans’ relationship to the problem before examining how racial segregation affects algorithmic designs.”).

¹⁷ See Ivan Manokha, *Facial analysis AI is being used in job interviews – it will probably reinforce inequality*, THE CONVERSATION (Oct. 7, 2019, 11:13 AM), <https://theconversation.com/facial-analysis-ai-is-being-used-in-job-interviews-it-will-probably-reinforce-inequality-124790>.

¹⁸ Marcela Hernandez-de-Menendez, Ruben Morales-Menendez, Carlos A. Escobar, & Jorge Arinez, *Biometric applications in education*, 15 INT’L. J. ON INTERACTIVE DESIGN & MANUFACTURING 365, 366 (July 2021), <https://link.springer.com/content/pdf/10.1007/s12008-021-00760-6.pdf> (“[B]iometric identification systems are becoming popular” in educational institutions.).

¹⁹ Rebecca Heilweil, *Tenants sounded the alarm on facial recognition in their buildings. Lawmakers are listening*, VOX (Dec. 26, 2019) [HTTPS://WWW.VOX.COM/RECODE/2019/12/26/21028494/FACIAL-RECOGNITION-BIOMETRICS-PUBLIC-HOUSING-PRIVACY-CONCERNS](https://www.vox.com/RECODE/2019/12/26/21028494/FACIAL-RECOGNITION-BIOMETRICS-PUBLIC-HOUSING-PRIVACY-CONCERNS)

²⁰ See e.g., Nadejda Alkhalidi, *Biometrics in healthcare: use cases, benefits, and things to consider*, ITREX (Sept. 14 2021) <https://itrexgroup.com/blog/biometrics-in-healthcare-applications-advantages-challenges/>.

²¹ Manokha, *supra* note 17. For example, HireVue's EDCI tool claims to evaluate employment candidates' external expressions, such as brow furrowing, tone of voice, use of passive or active words, sentence length, speaking speed, the amount eyes widen or close, lip tightening, chin raising, smiling, and more.

²² McKinsey & Company, *Race in the workplace: The Black experience in the US private sector*, (Feb. 21, 2021) <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/race-in-the-workplace-the-black-experience-in-the-us-private-sector> (noting that Black workers account for only 12% of the entry-level workforce and only 7% of managerial workforce); see also Courtney Connley, *Why Black workers still face a promotion and wage gap that's costing the economy trillions*, CNBC (Apr. 16, 2021), <https://www.cnbc.com/2021/04/16/black-workers-face-promotion-and-wage-gaps-that-cost-the-economy-trillions.html> (noting it will take about “95 years before Black employees reach parity at all levels in the private sector.” Further, “Black workers, on average, are not being hired, promoted or paid according to what would signal their level of productivity based on their experience or their education.”).

²³ See McKinsey & Company, *supra* note 22 (“In retail, 73 percent of Black workers fall into this [low-income] category; in accommodations and food service, that share is 84 percent.”).

assessment, uses historical data from an employer’s previous hires, and other employees in a particular industry, to learn how an employer defines a successful or “model” applicant.²⁴ Though neither the EDCI tool nor the employer may explicitly exclude Black applicants from job offers or promotions, the limited representation of past Black hires means the characteristics, traits, of Black applicants are also underrepresented in the data used to determine the standard for an ideal or “model” applicant.²⁵ Further, because an individual’s environment, background, and access to opportunity shape their characteristics and the very indications of emotion that EDCI employment tools seek to evaluate, the characteristics that an EDCI prioritizes may correlate to identifiers like one’s race, ethnicity, educational background, past employment opportunities, and more.²⁶ Thus, by applying EDCIs to an industry riddled with racial inequity and data from previous hiring and promotion patterns, there is a significant likelihood that the EDCI tool will magnify and further entrench the existing and historical biases that have resulted in low rates of Black employees. And even if an EDCI’s algorithm is set to explicitly ignore information depicting race, age, and other protected characteristics from its analysis and decision-making process, the tool may exclude employment candidates based on traits that equate to the same protected characteristics it sought to avoid, without detection²⁷--nevertheless creating a risk that the tool will penalize Black applicants for not conforming to the “model” employee standard. Accordingly, the unmonitored use of EDCIs risks subjecting communities that have historically been subject to discrimination to *further* exclusion from economic advancement and opportunities for upward mobility.²⁸

In addition to exclusion from employment opportunities, EDCIs, if used for law enforcement purposes, again, include great risk: increased police interaction, wrongful arrest,

²⁴ Drew Harwell, *HireVue’s AI face-scanning algorithm increasingly decides whether you deserve the job*, THE WASHINGTON POST (Nov. 6, 2019) <https://www.washingtonpost.com/technology/2019/10/22/ai-hiring-face-scanning-algorithm-increasingly-decides-whether-you-deserve-job/> (describing HireVue’s biometric hiring process).

²⁵ *Id.*

²⁶ See Knight, *supra* note 14 (noting that “HireVue’s chief data scientist, says the company screens for bias on gender, race, and age by collecting that information in training data and looking for signs of bias . . . but she acknowledges that it may be more difficult to know if the system is biased on factors such as income or education level, or if it could be affected by something like a stutter”); see also Margaret Hu, *Algorithmic Jim Crow*, 86 FORDHAM L. REV. 633, 657 (2017) (“[S]ome screening protocols may rely on rationales that are facially neutral but ultimately based on impermissible classifications.”).

²⁷ See e.g., Reva Schwartz et al., *A Proposal for Identifying and Managing Bias in Artificial Intelligence*, NAT’L INST. OF STANDARDS & TECH., US DEP’T OF COMMERCE (June 2021), at 3, <https://doi.org/10.6028/NIST.SP.1270-draft> (noting that use of proxy criteria, such as the use of past arrests to measure “criminality” and participation in certain sports to measure “employment suitability,” obscures normative choices made about the types of data incorporated into ML models). See also the Equal Credit Opportunity Act, Fair Credit Reporting Act, and the Fair Housing Act’s prohibitions on intentional discrimination against protected classes through the use of proxies. Equal Credit Opportunity Act, 15 U.S.C. 1691; Fair Credit Reporting Act, 15 U.S.C. § 1681; Fair Housing Act, 42 U.S.C. § 3604(f)(1). See also *Pac. Shores Properties, LLC v. City of Newport Beach*, 730 F.3d 1142, 1160 n. 23 (9th Cir. 2013) (“Proxy discrimination is a form of facial discrimination.”).

²⁸ See Manokha, *supra* note 17. See also Danyelle Solomon, Connor Maxwell, & Abril Castro, *Report: Systemic Inequality and Economic Opportunity*, CENTER FOR AMERICAN PROGRESS (Aug. 7, 2019), <https://www.americanprogress.org/article/systemic-inequality-economic-opportunity/> (describing historical employment discrimination for marginalized groups); Maryam Jameel & Joe Yerardi, *Workplace discrimination is illegal. But our data shows it’s still a huge problem*, Vox (Feb. 28, 2019, 8:29 AM), <https://www.vox.com/policy-and-politics/2019/2/28/18241973/workplace-discrimination-cpi-investigation-eeoc> (highlighting the continuation of employment discrimination against marginalized individuals, despite legal prohibitions against such discrimination).

incarceration, and other enforcement action.²⁹ One company’s description of its emotion inferring software boasted that “[b]ased on the analysis of one’s facial features, the system can calculate how confrontational, stressed, or nervous an individual is,” among other metrics, and “can analyze the person’s emotional response and figure out if they are up to anything suspicious.”³⁰ ³¹ Research, and countless community voices, have shown that historically and contemporarily, Black and Brown communities in particular, are often mislabeled as suspicious or threatening.³² These misperceptions have proven dangerous, frequently leading to increased interactions with law enforcement, officers’ use of unjustified physical violence, and even death.³³

EDCIs replicate and further engrain these harmful misperceptions. In a study of EDCI tools’ use of facial recognition software to interpret human emotions, for example, Dr. Lauren Rhue tested two separate EDCI systems by using photographs of Black and White basketball players and found that both systems consistently misinterpreted Black faces as having more negative emotions than white faces with similar facial positions.³⁴ One system, Face++, interpreted Black faces as angry twice as frequently as white faces, even after controlling for their degree of smiling.³⁵ The other EDCI system, Microsoft, registered contempt instead of anger, and therefore interpreted Black players as expressing contempt three times more often than their white counterparts, even when their facial expressions were ambiguous and overall, registered Black faces as 20% less happy.³⁶ Translating these misperceptions of negative emotions into the criminal

²⁹ Nayef Al-Rodhan, *Behavioral Profiling and the Biometrics of Intent*, HARV. INT’L. REV. (June 17, 2016, 9:00 AM), <https://hir.harvard.edu/behavioral-profiling-and-the-biometrics-of-intent/> (“[T]his biometric technology hopes to intercept an individual’s hostile intent before it materializes into an actual hostile act. . . . In airports, stadiums and other public areas, the measurement of behavioral signals, such as heart rate, breathing, eye movement, body temperature or fidgeting, are expected to help identify and locate potentially dangerous individuals.”).

³⁰ See Teh, *supra* note 5.

³¹ See *supra* notes 5, 7, and 8. See also Barrett, *supra* note 5, at 47 (“Technology companies, for example, are spending millions of research dollars to build devices to read emotions from faces, erroneously taking the common view as a fact that has strong scientific support. A more accurate description, however, is that such technology detects facial movements, not emotional expressions.”)

³² See Jennifer L. Eberhardt et al., *Seeing Black: Race, Crime, and Visual Processing*, 87 J. PERSONALITY & SOC. PSYCH. 876, 876 (2004), https://www.prisonpolicy.org/scans/Seeing_black.pdf; Lauren Rhue, *Racial Influence on Automated Perceptions of Emotions*, SOCIAL SCIENCE RESEARCH NETWORK (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281765 (confirming through experimental research that Black faces are more frequently interpreted as displaying hostile and/or negative emotions). See also *Stop-and-Frisk in the de Blasio Era*, New York Civil Liberties Union (March 2019), https://www.nyclu.org/sites/default/files/field_documents/20190314_nyclu_stopfrisk_singles.pdf (finding that, based on data about New York City’s stop-and-frisk program, 80% of Black and Latino males who were stopped on suspicion of criminal activity were innocent).

³³ See generally Eberhardt et al., *supra* note 32, at 890; see also Brando Simeo Starkey, ‘The words ‘I thought my life was in danger’ allow police to kill black people without fear of reprisal, THE UNDEFEATED (June 28, 2017) <https://theundefeated.com/features/the-words-i-thought-my-life-was-in-danger-allow-police-to-kill-black-people-without-fear-of-reprisal/> (noting that in the officer-involved murder of Philando Castile, a Black man reaching for his identification during a traffic stop, the police officer testified, “I was scared to death . . . I had no other choice.”).

³⁴ Rhue, *supra* note 32, at 2—5.

³⁵ *Id.*

³⁶ *Id.* at 3.

legal system where they may be used to justify wrongly inferring criminality is reckless and perilous for Black and Brown communities.³⁷

The above examples are alarming and make clear that use of EDCI tools gambles with the livelihoods, security, and safety of entire communities.³⁸

II. The Use of Biometric Tools Should be Subject to Rigorous Transparency and Oversight Mechanisms to Prevent and Discerning Bias and Discrimination

Even outside of EDCIs, the rapid and unchecked expansion of biometric technologies³⁹ in systems of racial injustice and social inequality, gives these technologies the capacity to scale the impact of systemic discrimination in ways previously inconceivable, across a variety of domains including policing, housing, education, economic security, and more. To reduce these harms, we recommend the following:

1) Ensure that biometric tools comply with civil and human rights laws at the federal, state and local levels.

Biometric technologies risk replicating racial and other biases and discrimination, which would not only harm Black and Brown communities, but also violate federal, state and local laws.⁴⁰ Civil rights principles and legal obligations should be essential guardrails to the development of biometric tools. Accordingly, designers, developers, vendors, and users must be able to demonstrate that their use would not result in any violation of the rights of legally protected groups. OSTP should make clear that these legal obligations extend throughout the lifecycle of biometric tool and that failure to comply with those obligations can expose developers and those who use the tool to legal action.

³⁷ Alex Engler, Why President Biden should ban affective computing in federal law enforcement, Brookings, Aug. 4 2021, (“[L]aw enforcement agencies and companies are experimenting with using affective computing to extract personality information, detect deception, and identify criminal behavior. Yet, there is insufficient evidence that these technologies work reliably enough to be used for the high stakes of law enforcement. Even worse, they threaten core American principles of civil liberty in a pluralistic society by presuming that facial movements, physical reactions, and tone of voice can be evidence of criminality.”), <https://www.brookings.edu/blog/techtank/2021/08/04/why-president-biden-should-ban-affective-computing-in-federal-law-enforcement/>.

³⁸ Crawford, *supra* note 8, at 6 (“[Affect recognition technology] should not be allowed to play a role in important decisions about human lives, such as who is interviewed or hired for a job, the price of insurance, patient pain assessments, or student performance in school.”.) *Id.* (“[R]egulators should ban the use of affect recognition in important decisions that impact people’s lives and access to opportunities.”); *see also* Al-Rodhan, *supra* note 29 (“The risks due to miscalculations, wrongful accusations or tracking of innocent suspects are immense.”).

³⁹ *See e.g.*, U.S. Gov’t Accountability Off., GAO-21-518, Facial Recognition Technology: Federal Law Enforcement Agencies Should Better Assess Privacy and Other Risks (2021), at 16-18 <https://www.gao.gov/assets/gao-21-518.pdf> (noting the expansion of federal and local law enforcement agencies’ use of facial recognition technology). without uniform guidance or reporting requirements, despite the technologies’ many documented failings.

⁴⁰ Several jurisdictions have already began drafting or passing legislation that either ban or restrictions on the use of biometric technology in assessing job candidates, and more states have proposed similar legislation. *See* 820 ILL. COMP. STAT. 42 (2020) (Illinois); Baltimore City Council Bill 21-0001 (2021) (Maryland); Assembly Bill 3625/4211 (New Jersey; pending); Wash. Rev. Code §19.375 (2017).

2) *Ensure biometric tools are subject to rigorous transparency and oversight mechanisms at all stages withing the tools' lifecycle.*

The development, use, and datasets underlying biometric tools are often shielded from public scrutiny.⁴¹ The complexity and opacity of many algorithmic systems, including vendors' failure to disclose how certain inputs lead to a decision, make it nearly impossible to pinpoint an exact reason for an algorithmic determination or inference, or critically, detect patterns of bias and discrimination.⁴² Accordingly, rigorous transparency and oversight mechanisms should be implemented during the design, development, sale, and use of the tools. These pre⁴³ and post-deployment oversight mechanisms should include, but are not limited to: 1) independent audits, conducted prior to deployment and at least annually during the course of their use,⁴⁴ assessing all forms of bias and unlawful discrimination, taking into account the historical context, the industry in which the tool will be used, and anticipated methods of use; 2) a demonstration of scientific validity and effectiveness; and 3) rigorous evaluation of racial and other bias and discrimination, including racial and other adverse impact assessments.

In particular, audits should assess whether the tool's application uses the least discriminatory method available; if the parameters, training data, or other input components of the tool have been or should be updated or modified to mitigate any potential adverse impacts; whether and how the decisions, recommendations, scores, or other outputs of the tool have had an adverse impact on members of any protected class; whether the tool relies on any protected attribute or any proxy for a protected attribute to make a determination; and any new sources of adverse impact that may arise during the tool's future use; and the effectiveness of efforts identified during prior audits. To ensure transparency, the results of all audits, impact assessments, and demonstrations of scientific validity should be publicly available, disaggregated by categories of protected classes and identified proxies that correlate to those protected classes—such as geographic location and income. The vendor and users of the tool at issue should take all reasonable efforts to correct any adverse impact on protected classes including disparate treatment, disparate impact, use of proxy criteria, or any other related discriminatory impact identified in the audit—including ceasing the use or sale of the tool.

⁴¹ Daniel Newman, *Emotional Recognition Tech – Is It Dangerous to the Recruitment Process?*, FUTURUM (April 28, 2020), <https://futurumresearch.com/emotional-recognition-tech-dangerous-to-recruitment-process/> (“[C]ompanies using it rarely disclose the results of their analysis to candidates—which means they not only never get the benefit of the doubt, they also don’t get the benefit of the ability to dispute the analysis.”); *see also* Harwell, *supra* note 24. (“HireVue offers only the most limited peek into its interview algorithms, both to protect its trade secrets and because the company doesn’t always know how the system decides on who gets labeled a ‘future top performer.’”).

⁴² See Roy Maurer, *AI-Based Hiring Concerns Academics, Regulators*, SHRM (Feb. 14, 2020), <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/ai-based-hiring-concerns-academics-regulators.aspx>, (“Often thousands of data points have been analyzed to evaluate candidates from social media sites, words in resumes, and other available data. Many systems operate as a black box, meaning vendors of algorithmic systems do not disclose how inputs lead to a decision.”).

⁴³ Here, pre-deployment refers to those procedure occurring when the biometric tool and/or its algorithm is first being designed, developed, trained, tested, and validated for use.

⁴⁴ The auditing obligation should extend to the developers, vendors, *and* users of the biometric tool at issue.

3) *Ensure individuals subject to biometric tools receive advanced notice and are provided alternatives and methods to challenge the tool’s application.*

Companies may not—and often cannot—explain to an individual subject to a biometric technology how the tool works, what characteristics it will assess, how the assessment relates to an ultimate determination, what happens after one is subject to a biometric tool, or how one may challenge the tool’s application.⁴⁵ This leaves those subject to biometric tools largely in the dark about how and why their biometric data is used.⁴⁶ To remedy this, prior to being subject to the tool, individuals should be informed of the use of the biometric tool, the data and processes it uses, and the characteristics it analyzes to make an ultimate determination. Additionally, individuals should be provided access to the results of the tool’s pre and post-deployment audits and assessments of the tool. These notifications should be provided in plain language, in an easily accessible manner, and in compliance with all laws involving disability accommodation or discrimination. After notification, the entity utilizing the tool should provide the individual with a meaningful opportunity to request a modified version of the tool’s application or an alternative process not involving a biometric tool. Individuals should also be informed of the process for challenging the tool’s applicability or its determinations, and the ability to seeking legal recourse.

4) *Ensure engagement with impacted or historically marginalized groups and civil rights and racial justice organizations, at every stage of an algorithmic tool’s life cycle, including pre-development, development, sale, and use.*

The communities most impacted by systemic discrimination, both historically and contemporarily, are significantly underrepresented in the development, sale, use, and evaluation of biometric technologies. Meaningful efforts to eliminate these harms requires deep engagement with marginalized communities and the incorporation of their voices. Similarly, civil rights and racial justice organizations with a longstanding history of advocating on behalf of, and in partnership with marginalized communities—like LDF—are uniquely positioned to identify the potential harms of algorithmic tools, are able to suggest safeguards to avert those harms and should be consulted at every stage of a biometric technology’s life cycle.

⁴⁵ For example, in the employment context even when job applicants are aware that a technological tool will analyze their biometric responses, they typically are not informed of the analytical processes or datasets used in a particular decision. Harwell, *supra* note 24 (Nathan Mondragon, HireVue’s chief industrial-organizational psychologist, noted that “the standard 30-minute HireVue assessment includes half a dozen questions but can yield up to 500,000 data points, all of which become ingredients in the person’s calculated score.”). Another example is HireVue’s Facial Action Units, which “assess how a person’s face moves to determine, for instance, how excited someone seems about a certain work task or how they would behave around angry customers,” can constitute *29 percent of a person’s score*; the words they say and the ‘audio features’ of their voice, like their tone, make up the rest.”

⁴⁶ Al-Rodhan, *supra* note 29 (“With these systems, passengers in an airport might step on a ‘smart carpet’ or rest on a ‘smart seat’ full of biometric sensors, all without their knowledge.”).

- 5) *Mandate the retention of all data, code, and all other information necessary to allow for subsequent independent audits and investigations regarding the lawfulness and validity of the tool.*

This should include but is not limited to records of each challenge; requests for accommodation, modification, alternative selection or identification procedure; requests to opt-out of the tool's application; the user's response to each challenge or request; and any other information that is relied upon during a pre-deployment or ongoing audit.

Conclusion

The development of AI and emerging technologies presents an array of challenges to protecting the civil and human rights, livelihoods, and security of Black and Brown communities. Federal policymakers must play a more active role to protect the civil rights of protected classes from discrimination caused or exacerbated by AI systems. We urge you make clear the applicability of existing civil rights laws to the use of AI technology and to prioritize the enactment of comprehensive regulations regarding the development of AI and other emerging technologies that respects the civil and human rights of all people.

Thank you for considering these comments. If you have any questions, please contact Katurah Topps, Policy Counsel, at ktopps@naacpldf.org or (212) 965-2200.

Sincerely,

/s/ Katurah Topps

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