

“Colorblind” Policing: Facial Recognition Technology’s Interplay in the Fourth Amendment’s Race Problem

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“Police technology masks inequity when it replaces some aspect of human decision-making understood to be inequitable with computer-assisted decision-making that is less obviously inequitable, thereby hiding the underlying inequity from outside observers. . . . Police technology exacerbates inequitable harms when it augments the ability of police to do harm, so that when police officers exercise their power in an inequitable way, the disparate harm of the inequitable activity is amplified.”¹

I. INTRODUCTION

During the height of the Civil Rights movement, the Supreme Court in *Terry v. Ohio*² crafted the policing power to stop and search an individual without a warrant, without probable cause, and if the officer possesses a reasonable suspicion of criminal activity.³ Thirty years later, in *Whren v. United States*,⁴ the Court willfully blinded itself to the subjective motivations of an officer who initiate a *Terry* stop, requiring only a claim of some lawful reason to initiate a stop to adhere to the Fourth Amendment’s protections.⁵ Despite overwhelming evidence that the Court’s Fourth Amendment jurisprudence disparately affects Black people, the Court continuously asserts that the Equal Protection Clause (EPC)—not the Fourth Amendment—is the proper constitutional avenue for relief from race-motivated policing.⁶ Even a defendant who successfully

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1. Laura M. Moy, *A Taxonomy of Police Technology’s Racial Inequity Problems*, 2021 U. ILL. L. REV. 139, 143 (2021).

2. 392 U.S. 1 (1968).

3. See U.S. CONST. amend. IV (providing individual protection from unreasonable searches and seizures by government agents); *Terry*, 392 U.S. at 24 (holding officer’s belief suspect armed and dangerous met threshold needed for police to conduct search).

4. 517 U.S. 807 (1996).

5. See *id.* at 809-10 (declaring traffic stops by police temporary seizures therefore beholden to Fourth Amendment reasonableness). The Court asserted that an officer’s racially motivated subjective motivations are of no consequence in evaluating the lawfulness of the stop under the Fourth Amendment. See *id.* at 813.

6. See *id.* at 813 (asserting EPC appropriate constitutional avenue for potential pretextual stop); Paul Butler, *The System Is Working the Way It’s Supposed to: The Limits of Criminal Justice Reform*, 104 GEO. L.J. 1419, 1448 (2016) (suggesting Black men overwhelming target of stop and frisk). Data collected from Chicago,

overcomes the EPC's practically insurmountable requirement of proving discriminatory intent is not afforded the exclusionary rule's protection.⁷ Ultimately, the Court's use of EPC as its suggested remedy provides little concrete relief for individuals subjected to pretextual stops.⁸

Against this backdrop of racially influenced law enforcement, the advent and development of Facial Recognition Technology (FRT) has fundamentally altered American policing over the past decade.⁹ FRT is an algorithmic code, created by private companies, capable of recognizing a person's facial identity by comparing it to other faces that are located in a centralized database.¹⁰ Some critics of the police's use of FRT warn of its disparate impact on people of color who already face higher instances of police surveillance.¹¹ Further, critics caution that FRT algorithms have higher error rates in identifying people of color, that databases used are often overly saturated with people of color, and that the police's unregulated, unrestrained use of FRT reinforces preconceived notions of "Black criminality."¹²

Historically, federal courts have been reluctant to condemn police implementation of technological advances as violative of the Fourth Amendment.¹³ While

Boston, Newark, New York City, and Philadelphia indicates that Black individuals account for a disproportionately high percentage of stops compared to their share of the total city population. *See* Butler, *supra* (offering differential percentages for police stops by race); *see also* U.S. CONST. amend. XIV (providing equal protection under law).

7. *See* McCleskey v. Kemp, 481 U.S. 279, 298 (1987) (holding data indicating capital punishment imposed more frequently on Black people insufficient for discriminatory intent); Brooks Holland, *Race and Ambivalent Criminal Procedure Remedies*, 47 GONZ. L. REV. 341, 342 (2012) (discussing Court's refusal to adopt exclusionary rule in context of EPC); *see also* State v. Brown, 930 N.W.2d 840, 919 (Iowa 2019) (Appel, J., dissenting) (maintaining officer's unlikely confession to bias affords little basis for defendants asserting pretextual stop).

8. *See* Holland, *supra* note 7, at 342 (explaining no real procedural avenue available for relief from pretextual stops).

9. *See* Nicol Turner Lee & Caitlin Chin, *Police Surveillance and Facial Recognition: Why Data Privacy Is Imperative for Communities of Color*, BROOKINGS (Apr. 22, 2022), <https://www.brookings.edu/research/police-surveillance-and-facial-recognition-why-data-privacy-is-an-imperative-for-communities-of-color/#top15> [perma.cc/4V8V-NLJQ] (detailing types of FRT employed by state and local police).

10. *See* Thorin Klosowski, *Facial Recognition Is Everywhere. Here's What We Can Do About It*, N.Y. TIMES (July 15, 2020), <https://www.nytimes.com/wirecutter/blog/how-facial-recognition-works/> [perma.cc/98J-A-PXCC] (explaining basics of FRT).

11. *See* Lee & Chin, *supra* note 9 (warning FRT poses threat to already heavily surveilled communities of color). While technology giants such as Google, Amazon, and Microsoft have temporarily or permanently stopped selling their FRT technologies to the police, Clearview AI, a largely covert company, continues to sell to police departments across the country. *See id.* (highlighting FRT's continued availability to police despite some companies' prohibitions on sales).

12. *See id.* (explaining interconnected Fourth Amendment issues exacerbated by police deployment of FRT). Because police are more likely to stop Black individuals, Black individuals are more likely to be subject to FRT, and because of disparate policing, a Black individual's mug shot is more likely to be in a police database used for FRT purposes. *See* Thaddeus L. Johnson et al., *Facial Recognition Systems in Policing and Racial Disparities in Arrests*, GOV'T INFO. Q., Oct. 2022, at 1, 2 (explaining potential problems regarding FRT's use in mugshot databases); Moy, *supra* note 1, at 158 (discussing inequitable technology's danger of reinforcing biased policing).

13. *See* California v. Ciraolo, 476 U.S. 207, 215 (1986) (holding police use of private plane to surveil defendant's backyard did not amount to Fourth Amendment violation); *see also* United States v. Vankesteren, 553 F.3d 286, 287, 291 (2009) (holding surveillance video placed in open field without warrant passes Fourth

the police are prohibited from using publicly unavailable technology to surveil the details of an individual’s home, technology deployed by law enforcement in a public space often escapes constitutional constraints.¹⁴ In some instances, however, defendants successfully challenge police use of advanced technology for surveillance purposes through the lens of mosaic theory, which assesses police behavior in the aggregate to determine whether prolonged periods of surveillance constitutes an invasion of privacy impermissible under the Fourth Amendment.¹⁵

In light of the Court’s silence regarding FRT, a handful of cities and states have enacted laws that curb or completely ban police use of FRT.¹⁶ On the federal level, the preceding Congress proposed two bills: one seeking to require probable cause for police to deploy the technology, the other seeking to implement a complete federal ban of FRT and to disincentivize state and local use by withholding certain funding.¹⁷

This Note first surveys the Fourth Amendment jurisprudence that created a legal justice system that is willfully ignorant of an officer’s potential racial motivations.¹⁸ Then, this Note discusses the police’s implementation of FRT and how it further infringes upon Black people’s liberties and dignities under the

Amendment scrutiny); *United States v. Tuggle*, 4 F.4th 505, 529 (7th Cir. 2021) (holding police use of pole cameras for prolonged surveillance did not violate Fourth Amendment). In *Tuggle*, the court acknowledged that today’s pole cameras are tomorrow’s facial recognition technology, and yet the Fourth Amendment, as it is understood today, does not provide protection. See *Tuggle*, 4 F.4th at 527-29.

14. See *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (holding police use of technology to gather details of home constitutes search); *United States v. Knotts*, 460 U.S. 276, 281 (1983) (explaining individuals traveling on public roadways can claim no reasonable expectation of privacy under Fourth Amendment).

15. See *United States v. Maynard*, 615 F.3d 544, 562 (D.C. Cir. 2010) (explaining mosaic theory in context of prolonged GPS surveillance). Mosaic theory asserts that surveillance of an individual’s movements over a prolonged period reveals intimate details of their life and is therefore unreasonable under the Fourth Amendment. *Id.* at 562-63.

16. See VA. CODE ANN. § 15.2-1723.2 (2023) (requiring reasonable suspicion for police to deploy FRT); MASS. GEN. LAWS ANN. ch. 6, § 220 (West 2023) (allowing police use of FRT only through issuance of warrant); Rachel Metz, *First, They Banned Facial Recognition. Now They’re Not So Sure*, CNN BUS. (Aug. 5, 2022), <https://www.cnn.com/2022/08/05/tech/facial-recognition-bans-reversed/index.html> [perma.cc/9DDK-ZBMG] (discussing California’s three-year ban on police worn body cameras with FRT capability).

17. See Facial Recognition Act of 2022, H.R. 9061, 117th Cong. § 101(b)(3)(F) (2022) (requiring warrant supported by probable cause to deploy FRT); Facial Recognition and Biometric Technology Moratorium Act of 2021, H.R. 3907, 117th Cong. § 3(a) (2021) (prohibiting federal use of biometric information without explicit statutory authorization). The Facial Recognition Act leaves room for police to use FRT without a warrant in emergency circumstances. See H.R. 9061 at § 101(c)(1)(D) (explaining permissible warrantless uses when warrant cannot be obtained in timely manner). Had the prior Congress passed the bill, the Facial Recognition and Biometric Technology Act would have withheld federal Byrne grants from state governments that continued to utilize biometric surveillance, including FRT. See H.R. 3907 at § 4. Because Byrne grants provide critical funding to state and local law enforcement agencies, withholding those funds incentivizes state and local police forces to adopt similar restrictions on FRT use. See *Edward Byrne Memorial Justice Assistance Grant (JAG) Program*, BUREAU OF JUST. ASSISTANCE, <https://bja.ojp.gov/program/jag/overview> [perma.cc/7UPM-U9XS] (explaining Byrne program); *FY 2022 Edward Byrne Memorial Justice Assistance Grant Program—Local Solicitation*, BUREAU OF JUST. ASSISTANCE, <https://bja.ojp.gov/funding/opportunities/o-bja-2022-171368> [https://perma.cc/L7N6-XLLF] (reporting local funding); *FY 2022 Edward Byrne Memorial Justice Assistance Grant Program—State Solicitation*, BUREAU OF JUST. ASSISTANCE, <https://bja.ojp.gov/funding/opportunities/o-bja-2022-171322> [https://perma.cc/BVH4-W75R] (reporting state funding).

18. See *infra* Section II.A (discussing Fourth Amendment’s historical impact on Black people).

guise of “neutral” technology.¹⁹ Next, this Note explores the Court’s reasoning in evolving technology and surveillances cases—with a particular emphasis on mosaic theory—and discusses state and proposed federal statutory approaches to FRT regulation.²⁰ Then, this Note argues that the most dangerous uses of FRT are the least likely to be recognized and curbed by the Supreme Court due to its longstanding refusal to allow the constitution to check unrestrained police behavior, leaving Black people defenseless against FRT’s role in increasing the structural inequalities embedded in our legal system.²¹ This Note concludes by calling for a comprehensive federal ban on police use of FRT that adequately incentivizes state and local law enforcement to enact similar bans.²²

II. HISTORY

A. Fourth Amendment Protections and Limits

1. Fourth Amendment Basics

The framers of the United States Constitution drafted the Fourth Amendment to provide greater protections against intrusive government behavior than those available under English common law.²³ On its face, the Amendment requires police officers to secure a warrant based upon probable cause before conducting any governmental search or seizure.²⁴ A seemingly indeterminate term, the Court defines probable cause as possessing “facts and circumstances within [police] knowledge and of which they had reasonably trustworthy information . . . to warrant a man of reasonable caution” that a crime has occurred.²⁵ The warrant, obtained only through proof of probable cause to an independent magistrate,

19. See *infra* Section II.B (explaining evolution of FRT and problems with disparate effects in use by police).

20. See *infra* Section II.C (exploring both recent technology jurisprudence and legislation regarding FRT regulation).

21. See *infra* Section III.A (analyzing most problematic use of FRT outside purview of constitutional protection and dominant public criticism).

22. See *infra* Section III.B (arguing Congress must pass comprehensive ban on FRT to prevent disparate effects of FRT).

23. See Carolyn Long, *The Origins of the Fourth Amendment*, 11 INSIGHTS ON L. & SOC’Y 4, 4 (2011) (explaining English common law in colonial era permitted general warrants without justification). During colonial times officers commonly used writs of assistance, which required no indicia of criminal activity, to engage in searches. See *id.* Colonists vehemently objected to the police’s execution of writs of assistance, viewing them as a violation of individual liberty and English law. See *id.*

24. See U.S. CONST. amend. IV (ensuring government shall not issue warrant absent probable cause); *Katz v. United States*, 389 U.S. 347, 359 (1967) (holding warrantless surveillance of public phonebooth violative of Fourth Amendment). In *Katz*, despite the restrained nature of the officers’ search, the Court reasoned that it was the imposition of a judicial officer’s judgement—and not the police’s judgement—that was important under the Fourth Amendment. See *Katz*, 389 U.S. at 356-57 (noting officers’ restraint in search); see also *Wong Sun v. United States*, 371 U.S. 471, 481-82 (1963) (stressing warrant ensures impartial judgment of judiciary suited to analyze validity of police’s probable cause).

25. *Carroll v. United States*, 267 U.S. 132, 162 (1925) (defining probable cause); see *Brinegar v. United States*, 338 U.S. 160, 175 (1949) (explaining all probable cause definitions require reasonable belief criminal activity occurred).

serves to ensure the particularity of the search, constrained to the bounds provided for in the warrant document.²⁶ Moreover, the warrant communicates to the impacted individual that the government’s conduct is lawful.²⁷

2. Weakening Fourth Amendment Protections

In practice, however, the Court does not always require a warrant, or even probable cause, to deem a search or seizure constitutionally permissible.²⁸ In *Terry*, the Court fashioned a lower threshold—that of reasonable suspicion—to determine whether the police stop of an individual on foot and the subsequent patfrisk violated the Fourth Amendment.²⁹ Theoretically, reasonable suspicion must be particularized to an individual based on specific, articulable facts—requiring reasonable suspicion of criminal activity to justify the stop and reasonable suspicion that an individual is armed and dangerous to justify any subsequent frisk.³⁰ However, the *Terry* Court held that, despite the officer’s testimony that he was “unable to say precisely what first drew his eye to [the defendants],” the

26. See *Groh v. Ramirez*, 540 U.S. 551, 557 (2004) (affirming Fourth Amendment’s text explicitly calls for particularity); see also Kevin D. Hart, Annotation, *Sufficiency of Description of Business Records Under Fourth Amendment Requirement of Particularity in Federal Warrant Authorizing Search and Seizure*, 53 A.L.R. FED. 679, § 2(a) (1981) (explaining particularity requirement intended to limit scope of police-initiated search and seizures).

27. See *Groh*, 540 U.S. at 561 (highlighting particularity requirement alerts individuals of officers’ lawful, limited authority to conduct search); see also *Illinois v. Gates*, 462 U.S. 213, 236 (1983) (explaining warrant reduces fear of unlawful police conduct).

28. See, e.g., *Carroll*, 267 U.S. at 155-56 (holding lawful warrantless search of vehicle reasonably believed to possess contraband); *Terry v. Ohio*, 392 U.S. 1, 27 (1968) (articulating lower constitutional standard for *Terry* stops). In *Carroll*, the Court reasoned that because the officers had a reasonable belief the suspects were transporting liquor, they could conduct a warrantless search of the car to prevent forfeiture of the evidence. See *Carroll*, 267 U.S. at 149 (reasoning true rule of Fourth Amendment provides for warrantless searches in exigent circumstances).

29. See *Terry*, 392 U.S. at 30-31 (arguing articulable facts existed to demonstrate officer’s reasonable suspicion). In *Terry*, a veteran officer became suspicious of men he spotted in a downtown Cleveland shopping area. See *id.* at 5. The alleged suspicious behavior consisted of one man walking southwest down the road past stores, pausing, looking into a window, walking for a short distance, then walking back towards his companion, with the companion repeating the same behavior. See *id.* at 6. After ten to twelve minutes, the officer followed the men, asked them to identify themselves, and, when one mumbled a response, frisked him for weapons. See *id.* at 6-7. A case of first impression, *Terry* initially applied only to traditional on-foot field investigations. See JOSEPH G. COOK, CONSTITUTIONAL RIGHTS OF THE ACCUSED § 3:4 (3d ed. 2021) (explaining *Terry* initially concerned only with field detentions).

30. See *Terry*, 392 U.S. at 19-20 (affirming both police stops and patfrisks fall within scope of Fourth Amendment protection). The Court reasoned that circumstances requiring immediate police action necessarily impose a lower standard than that required of a search duly authorized by a warrant. See *id.* at 20 (discussing impracticality of requiring warrant for swift police action); see also Frank Rudy Cooper, *A Genealogy of Pro-grammatic Stop and Frisk: The Discourse-To-Practice-Circuit*, 73 U. MIAMI L. REV. 1, 55-56 (2018) (arguing Court continues to weaken *Terry*’s reasonable suspicion standard). Following *Terry*, the Court found that the State may satisfy the reasonable suspicion standard by advancing only two articulable facts. See *Illinois v. Wardlow*, 528 U.S. 119, 124-25 (2000) (holding defendant’s flight in high-crime area justified officer’s reasonable suspicion for stop and frisk); Cooper, *supra*, at 55-56 (highlighting cases where flight in high-crime neighborhood sufficient to establish reasonable suspicion).

reasonable suspicion standard was met.³¹ All of the defendants were Black.³² Indeed, not all of the Justices found merit in this weakened threshold; Justice Douglas and Justice Brennan warned of the potential for police misuse of this deferential standard.³³

Moreover, the Court has extended *Terry* beyond the realm of on foot field investigations, maintaining that routine traffic stops are analogous to *Terry* stops.³⁴ When an officer possesses probable cause or reasonable suspicion to initiate a traffic stop, any resulting search of the car or its occupants must be reasonable in time and scope.³⁵ The Court, however, explicitly held that this Fourth Amendment standard does not necessarily preclude any unreasonable suspicions motivating a police stop so long as the officer can point to some objective reason for initiating the stop.³⁶ For example, in *Whren*, the Court vehemently struck down the defendants' argument that a pretextual stop for a minor traffic infringement must be a violation of the Fourth Amendment.³⁷ According to the Court, a traffic violation, no matter how minor, amounts to sufficient probable cause to initiate the stop—the Fourth Amendment is unconcerned with an officer's subjective intent.³⁸ Defendants' arguing impermissible subjective motivations of officers must resort to the EPC, rather than the Fourth Amendment,

31. See *Terry*, 392 U.S. at 5 (emphasizing officer's initial impression of defendants). The officer explained that when he first noticed the defendants, they simply "didn't look right" to him. See *id.*

32. See *Butler*, *supra* note 6, at 1447 (noting *Terry* fails to mention Mr. Terry's race).

33. See *Terry*, 392 U.S. at 39 (Douglas, J., dissenting) (stressing Court should not deviate from probable cause standard in determining legality of stop); John Q. Barrett, *Deciding the Stop and Frisk Cases: A Look Inside the Supreme Court's Conference*, 72 SAINT JOHN'S L. REV. 749, 825-26 (1998) (explaining Justice Brennan's second thoughts following *Terry* decision). In his *Terry* dissent, Justice Douglas lamented: "[Y]et if the individual is no longer to be sovereign, if the police can pick him up whenever they do not like the cut of his jib, if they can seize and search him in their discretion, we enter a new regime." *Terry*, 392 U.S. at 39 (Douglas, J. dissenting). Eventually, Justice Brennan came to regret his support of the *Terry* majority fearing that the decision would further fuel the preexisting resentment between police and the Black community. See Barrett, *supra* (reproducing Justice Brennan's letter to Chief Justice Marshall discussing his fear *Terry* could cause negative repercussions).

34. See *Berkemer v. McCarty*, 468 U.S. 420, 439 (1984) (distinguishing traffic stop from custodial interrogation); see also WAYNE R. LEFAVE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* § 9.3(b) (6th ed. 2022) (explaining jurisprudence likens traffic stops to *Terry* stops instead of custodial interrogations).

35. See *Navarette v. California*, 572 U.S. 393, 396 (2014) (affirming Fourth Amendment allows traffic stops grounded in reasonable suspicion of crime); LEFAVE, *supra* note 34 (outlining two question inquiry in analyzing constitutionality of investigatory traffic stop).

36. See *Whren v. United States*, 517 U.S. 806, 813 (1996) (holding compliance with Fourth Amendment not beholden to subjective intent analysis). But see *Cooper*, *supra* note 30, at 11-12 (highlighting *Whren* pertains only to potentially pretextual stops grounded in probable cause). Nevertheless, most courts extend *Whren* to traffic stops initiated with reasonable suspicion or probable cause. See *id.* at 57-58 (explaining courts falsely conflate *Whren* with *Terry* to allow racial profiling absent even reasonable suspicion).

37. See *Whren*, 517 U.S. at 819 (holding plainclothes officers' stop and arrest of vehicle occupants reasonable under Fourth Amendment). In *Whren*, the Black male defendants argued that a reasonable officer would not have initiated a traffic stop simply because a vehicle stopped for twenty seconds at an intersection, turned without signaling, and sped off. See *id.* at 808-09. In the defendants' view, the officers were racially motivated, stopping them not for a traffic violation, but because they were Black, and therefore moved to suppress the drugs uncovered. See *id.* at 810.

38. See *id.* at 813 (stressing subjective intent alone fails to invalidate legal basis for traffic stop); *United States v. Robinson*, 414 U.S. 218, 236 (1973) (holding officer's lack of subjective fear of defendant immaterial).

to qualify for a judicial remedy.³⁹ Notably, a successful EPC claim provides only a civil remedy, while Fourth Amendment violations give defendants potential relief through the exclusionary rule.⁴⁰

In the absence of probable cause, or even reasonable suspicion, the Court nevertheless forgives police for searches that result in the discovery of contraband in two scenarios: when an officer makes a “mistake” or when there are sufficient intervening circumstances.⁴¹ For example, a police officer’s mistaken understanding of a traffic law does not necessarily render a search conducted pursuant to this mistaken belief violative of the Fourth Amendment.⁴² So long as the mistake is “reasonable,” the constitutionality of the search prevails.⁴³ Furthermore, an otherwise unlawful police stop can still result in a constitutional search if an appropriate intervening cause transforms the search into a lawful one.⁴⁴ To illustrate this point, in *Strieff*, the police officer’s concededly suspicionless stop of the defendant’s car was inconsequential in determining the lawfulness of the resulting search of the defendant’s person, as the officer’s discovery constituted an “intervening cause,” which permitted a search incident to arrest.⁴⁵

39. See U.S. CONST. amend. XIV (providing equal protection of law to all people); *Whren*, 517 U.S. at 813 (pointing to EPC claim for proper constitutional relief from pretextual stops); see also *McCleskey v. Kemp*, 481 U.S. 279, 313 (1987) (holding Baldus study failed to demonstrate discriminatory intent). In *McCleskey*, the Court analyzed the Baldus study which indicated that judges imposed the death penalty at the highest rate against Black defendants who killed white victims. See *McCleskey*, 481 U.S. at 292. Despite this showing of wide discriminatory impact, the Court held that the Baldus study showed no discriminatory intent particularized to the defendant’s situation. See *id.* at 297 (reasoning defendant’s argument rested on inference from study insufficient for finding of equal protection violation).

40. See Holland, *supra* note 7, at 342 (emphasizing equal protection violation fails to trigger exclusionary rule for suppression claims); WAYNE R. LEFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 1.1(f) (6th ed. 2022) (explaining exclusionary rule assures police will not profit from illegal behavior).

41. See *Heien v. North Carolina*, 574 U.S. 54, 68 (2014) (holding officer’s mistake of law constitutionally reasonable); *Utah v. Strieff*, 579 U.S. 232, 238 (2016) (holding evidence admissible when intervening cause follows unlawful police behavior).

42. See *Heien*, 574 U.S. at 68 (holding officer’s mistaken belief vehicle’s faulty brake light violated law reasonable to initiate traffic stop). Due to the officer’s mistake of law, the stop recovered cocaine from the vehicle, which resulted in charges against the driver. See *id.* at 58.

43. See *id.* at 60-61 (explaining Fourth Amendment requires reasonableness, but not perfection, during police searches). The Court asserts that reasonable mistakes of facts and reasonable mistakes of law are similarly compatible with a reasonable suspicion analysis. See *id.* at 61 (arguing reasonable suspicion assesses understanding of facts and law while allowing for mistakes of either).

44. See *Strieff*, 579 U.S. at 241 (admitting officer’s mistaken decision to initiate stop).

45. See *id.* at 239 (explaining intervening cause rationale for admissibility of evidence). In *Strieff*, the responding officer asked the defendant for identification while dispatch alerted the officer of the defendant’s outstanding warrant. See *id.* at 235. During the search incident to arrest, the officer uncovered methamphetamine and drug paraphernalia. See *id.* at 235-36. While the responding officer did not possess reasonable suspicion to initiate the stop, the court nevertheless held that the intervening circumstance of a lawful warrant negated any argument for the suppression of evidence. See *id.* at 236. In determining what qualifies as a sufficient intervening cause, the Court considered factors such as, temporal proximity, presence of intervening circumstances, and the purpose and severity of the police’s behavior. See *id.* at 239. But see *United States v. Garcia*, 974 F.3d 1071, 1079 (9th Cir. 2020) (holding later discovery of suspicionless search condition did not attenuate officer’s initial unlawful entry).

3. Fourth Amendment Jurisprudence's Effect on Black Communities

Black communities feel the negative repercussions of the Court's Fourth Amendment jurisprudence the most intensely.⁴⁶ Predicating police stops on a standard as amorphous as reasonable suspicion allows societal stereotypes of Black criminality to inform officers' choices.⁴⁷ Specifically, the Court's allowance of behaviors such as a defendant's flight from the police or their presence in a "high-crime area" to qualify as relevant factors in a reasonable suspicion analysis allows police to stop and frisk Black people more frequently than white people.⁴⁸ Additionally, Black people are more likely to be pulled over for a traffic violation than white people—a statistic made lawful by the Court in *Whren*.⁴⁹ Equally as concerning, the Court's ever-generous forgiveness of an officer's mistake of law, and recognition of intervening circumstances, grants free reign for police to conduct suspicionless stops at the expense of Black individuals.⁵⁰

46. See Butler, *supra* note 6, at 1443 (arguing feigned neutrality of reasonable patfrisk standard permits police violence against Black people); see also Ric Simmons, *Race and Reasonable Suspicion*, 73 FLA. L. REV. 413, 425-27 (2021) (noting allowing high-crime area to factor into reasonable suspicion standard implicates race). Allowing high-crime areas to factor into a reasonable suspicion analysis is vulnerable to abuse because the police do not need to point to quantifiable evidence to make such a claim. See Simmons, *supra*, at 425-27 (discussing Court's allowance of officer's subjective perceptions of "high-crime area"); Kevin R. Johnson, *How Racial Profiling in America Became the Law of the Land: United States v. Brignoni-Ponce and Whren v. United States and the Need for Truly Rebellious Lawyering*, 98 GEO. L.J. 1005, 1066 (2010) (arguing *Whren* immunizes police from most claims of race influenced behavior).

47. See Robin Smyton, *How Racial Segregation and Policing Intersect in America*, TUFTS NOW (June 17, 2020), <https://now.tufts.edu/2020/06/17/how-racial-segregation-and-policing-intersect-america> [<https://perma.cc/2KAM-LAXM>] (explaining stop and frisk allows stereotyping to inform officers' behavior); *supra* note 31 and accompanying text (explaining officer failed to articulate what caused initial suspicion of Black defendant).

48. See *Illinois v. Wardlow*, 528 U.S. 119, 124 (2000) (holding defendant's flight in high-crime area permissible factor informing officer's reasonable suspicion); Bren Grunwald & Jeffrey Fagan, *The End of Intuition-Based High-Crime Areas*, 108 CALIF. L. REV. 345, 369 (2019) (highlighting officer's determination of "high-crime area" often based on racial makeup of area). Some jurisdictions, however, acknowledge that flight from police should not be indicative of reasonable suspicion because of overwhelming evidence that Black men encounter police more frequently than white men. See *Commonwealth v. Warren*, 58 N.E.3d 333, 342 (Mass. 2016) (reasoning refusal to recognize flight cannot be understood in isolation of documented racial profiling); Bill Chappel, *Black Men May Have Cause to Run from Police, Massachusetts High Court Says*, NPR (Sept. 21, 2016), <https://www.npr.org/sections/thetwo-way/2016/09/21/494900984/black-men-may-have-cause-to-run-from-police-massachusetts-high-court-says> [<https://perma.cc/6JWB-3WZ7>] (highlighting Black people motivated to flee police to escape indignity of racial profiling); Butler, *supra* note 6, at 1448 (providing statistics of police stops by race). In Chicago, Boston, New York City, Newark, and Philadelphia, police stopped Black people at a higher rate than their percentage of the population. See Butler, *supra* note 6, at 1448.

49. See *Whren v. U.S.* 517 U.S. 806, 813 (1996) (holding subjective motivations play no role in Fourth Amendment analysis); AJ Willingham, *Researchers Studied Nearly 100 Million Traffic Stops and Found Black Motorists Are More Likely to Be Pulled Over*, CNN (Mar. 21, 2019), <https://www.cnn.com/2019/03/21/us/police-stops-race-stanford-study-trnd/index.html> [<https://perma.cc/W7ZD-QWC3>] (highlighting study demonstrating Black drivers 20% more likely to face traffic stop than white drivers); see also Jonathan Gaebler et al., *Police Stop Black Drivers More Often than Whites. We Found Out Why.*, WASH. POST (Sept. 15, 2022), <https://www.washingtonpost.com/politics/2022/09/15/driving-while-black-racial-discrimination-traffic-tickets/> [<https://perma.cc/9Y23-J7TJ>] (examining study indicating police monitor for speeding violations at higher frequency in Black communities). Gaebler's study demonstrates that while Black and white drivers speed at the same rate, police departments deploy speed traps more frequently in Black communities. See Gaebler et al., *supra*.

50. See Dorothy Roberts, *Forward: Abolition Constitutionalism*, 133 HARV. L. REV. 1, 82-83 (2019) (discussing implications of *Heien* and *Strieff*'s reasoning). Arguably, equating mistake of fact with mistake of law

Furthermore, police surveil Black communities at higher rates than white communities, not always for Black citizens’ protection, but for the effectuation of “law and order” policies.⁵¹ Strikingly, white people commit many of the same offenses at comparable rates yet they face lower instances of arrest.⁵² Most critically, Black people are far more likely to die during a police encounter.⁵³

B. FRT and Its Effects on Policing

1. What is FRT?

The advent and development of FRT has transformed policing over the past decade.⁵⁴ To identify a match, the algorithms that instruct FRT engage in a multi-step process that recognizes a face within a photo and then compares that face against a database of other faces.⁵⁵ Because the algorithms produce an array of

creates the opportunity for officers to lawfully initiate stops without any lawful basis so long as they can point to some reasonable interpretation of the law. *See id.* at 82 (discussing *Heien*’s effects on people of color); *see also* *Utah v. Strieff*, 579 U.S. 232, 244 (2016) (Sotomayor, J., dissenting) (warning ruling makes it permissible for police to stop individuals for doing nothing wrong). Justice Sotomayor opines that *Strieff* will disproportionately affect people of color, as they are most often the victim of suspicionless stops. *See Strieff*, 579 U.S. at 254 (Sotomayor, J., dissenting).

51. *See* Smyton, *supra* note 47 (arguing Black neighborhoods experience higher rates of police surveillance and social control); *see also* Lee & Chin, *supra* note 9 (maintaining excessive police surveillance of communities of color traces to Civil Rights era). While police legitimize their presence due to the violence associated with high-crime areas, scholars argue that police crafted this race-neutral rationale to legitimize targeting neighborhoods of color. *See* ELIZABETH HINTON ET AL., VERA INST. JUST., AN UNJUST BURDEN: THE DISPARATE TREATMENT OF BLACK AMERICANS IN THE CRIMINAL JUSTICE SYSTEM 1 (May 2018), <https://www.vera.org/downloads/publications/for-the-record-unjust-burden-racial-disparities.pdf> [<https://perma.cc/9SDJ-VA5C>] (explaining development of “hot spot” policing); Roberts, *supra* note 50, at 80 (arguing racialized policing poses constant threat of assault on Black communities, “suffocating their freedom”).

52. *See* MICHELLE ALEXANDER, THE NEW JIM CROW, MASS INCARCERATION IN THE AGE OF COLORBLINDNESS 7 (2020) (highlighting all races use and sell drugs at similar rates). Black men, however, are charged with drug crimes at far higher rates than white men. *See id.* (noting some states charge Black men 50% more than white men for drug crimes). Interestingly, opioid use, a drug most commonly associated with white users, has been addressed nationally with a focus on increased funding for prevention and treatment rather than arrests for use. *See Racial Double Standard in Drug Laws Persists Today*, EQUAL JUST. INITIATIVE (Dec. 9, 2019), <https://eji.org/news/racial-double-standard-in-drug-laws-persists-today/> [<https://perma.cc/5Y7A-937L>] (noting billions of dollars Congress allocated in 2018 budget to fight opioid epidemic).

53. *See* Sam Levin, *U.S. Police Have Killed Nearly 600 People in Traffic Stops Since 2017, Data Shows*, GUARDIAN (Apr. 21, 2022), <https://www.theguardian.com/us-news/2022/apr/21/us-police-violence-traffic-stop-data> [<https://perma.cc/5FN3-LHNN>] (explaining statistics of traffic stop deaths). According to Mapping Police Violence’s traffic violation research, while Black people comprise 13% of the population, they account for 28% of traffic stop deaths. *See id.*; *1,085 People Have Been Shot and Killed by Police in the Past 12 Months*, WASH. POST (Mar. 21, 2023), <https://www.washingtonpost.com/graphics/investigations/police-shootings-database/> [<https://perma.cc/RTB6-XFSV>] (providing data demonstrating police kill Black people at higher rates in comparison to white people).

54. *See generally* CLARE GARVIE ET AL., GEO. L. CTR. ON PRIV. & TECH., THE PERPETUAL LINEUP: UNREGULATED POLICE FACE RECOGNITION IN AMERICA (2016), <https://www.perpetuallineup.org/sites/default/files/2016-12/The%20Perpetual%20Line-Up%20-%20Center%20on%20Privacy%20and%20Technology%20-at%20Georgetown%20Law%20-%2020121616.pdf> [<https://perma.cc/4L2P-JW2L>] (discussing law enforcement’s nationwide use of FRT).

55. *See* GARVIE ET AL., *supra* note 54, at 9 (outlining four-step process of facial recognition technology algorithm). The technology: (1) detects the face within the photo; (2) aligns it with the other faces in the

potential matches, a human must ultimately determine which match is the most accurate.⁵⁶ To render these matches, the algorithms are trained with stock photos that recognize certain facial features as more important than others.⁵⁷ While FRT's ubiquity is evidenced through everyday smartphone use, such as in place of traditional phone passcodes or to organize a collection of photos, police deployment of FRT has perhaps incited the most controversy.⁵⁸

2. Police Use of FRT

In 2016, an estimated one in four state and local police forces in the United States possessed FRT resources, largely purchased from private companies.⁵⁹ In general, law enforcement deploys FRT to achieve four different goals.⁶⁰ First, FRT allows police to identify suspects during a *Terry* or traffic stop.⁶¹ Second, FRT helps police recognize arrested individuals with photographs in mugshot databases.⁶² Third, FRT assists police in ongoing investigations if they obtain a photo of a suspect.⁶³ Lastly, FRT aids police in surveillance by extrapolating suspects' faces from video footage, a practice most often referred to as "real time surveillance."⁶⁴

databases; (3) extrapolates relevant facial features; and (4) issues a numerical score to the potential matches within the database. *See id.* (explaining how FRT identifies and matches faces).

56. *See From Investigation to Conviction: How Does the Police Use FRT?*, INTERNET FREEDOM FOUND. (July 2, 2021), <https://internetfreedom.in/from-investigation-to-conviction-how-does-the-police-use-frt/> [<https://perma.cc/NX7K-BFPQ>] (explaining algorithm produces multiple matches); GARVIE ET AL., *supra* note 54, at 9 (highlighting FRT executes probabilistic matches rather than binary yes or no match).

57. *See* GARVIE ET AL., *supra* note 54, at 9 (explaining training process for FRT algorithms); Ari Breland, *How White Engineers Built Racist Code—And Why It's Dangerous for Black People*, GUARDIAN (Dec. 4, 2017), <https://www.theguardian.com/technology/2017/dec/04/racist-facial-recognition-white-coders-black-people-police> [<https://perma.cc/8B5A-WJ3C>] (noting algorithms predominantly trained using white stock photos).

58. *See* Klosowski, *supra* note 10 (detailing various everyday uses of FRT); Ian Sample, *What Is Facial Recognition—And How Sinister Is It?*, GUARDIAN (July 29, 2019), <https://www.theguardian.com/technology/2019/jul/29/what-is-facial-recognition-and-how-sinister-is-it> [<https://perma.cc/5AYD-YQ5W>] (discussing FRT's pervasive presence and criticism of officer use); *see also* GARVIE ET AL., *supra* note 54, at 8 (analogizing police use of FRT to subjecting public to perpetual lineup).

59. *See* Lee & Chin, *supra* note 9 (citing Georgetown Law estimate of state and local police forces' FRT access). Clearview AI is one of the most well-known private companies that sells FRT to police. *See id.*

60. *See* GARVIE ET AL., *supra* note 54, at 10-12 (detailing four different ways police use FRT). *But see* Metz, *supra* note 16 (arguing police use of FRT largely covert and unknown to public).

61. *See* GARVIE ET AL., *supra* note 54, at 10 (classifying "stop and identify" FRT deployment by police). In police stops where an individual cannot or will not identify themselves, the police can take a photo on their smartphone, which is installed with FRT, to find a match within a database. *See id.* at 10-11 (explaining stop and identify deployment). *But see* John Schuppe, *How Facial Recognition Became a Routine Policing Tool in America*, NBC NEWS (May 11, 2019), <https://www.nbcnews.com/news/us-news/how-facial-recognition-became-routine-policing-tool-america-n1004251> [<https://perma.cc/64W9-VBGY>] (detailing some police departments' reluctance to disclose their specific use of FRT).

62. *See* GARVIE ET AL., *supra* note 54, at 11 (classifying "arrest and identify" FRT deployment by police). Police can compare the arrested individual's mugshot against a database that contains other mugshots, driver's licenses, or unsolved crime photos. *See id.* (discussing databases available for FRT comparison); Andrew Guthrie Ferguson, *Facial Recognition and the Fourth Amendment*, 105 MINN. L. REV. 1105, 1119-20 (2021) (explaining police use of FRT when suspect already identified).

63. *See* GARVIE ET AL., *supra* note 54, at 11-12 (expanding on police's "investigate and identify" practices).

64. *See id.* at 12 (categorizing "real time video surveillance" FRT deployment by police).

Across America, local law enforcement agencies vary in both their uses of use FRT as well as the databases they choose for the algorithms to generate matches.⁶⁵ Some FRT databases are comprised exclusively of mugshot photos, while others are made up of both mugshots and driver’s license photos.⁶⁶ Databases that include driver’s license photos cause the most alarm because they subject the “innocent” to intrusive government surveillance.⁶⁷

Proponents of law enforcement’s use of FRT highlight its ability to efficiently locate suspects in criminal investigations as well as its potential to reunite missing children with their families.⁶⁸ The New York City Police Department (NYPD) maintains that FRT has assisted its department in numerous investigations for murders, rapes, felony assaults, and grand larcenies.⁶⁹ Moreover, a plurality of Americans support widespread police use of FRT.⁷⁰ Overall, FRT supporters argue that it helps neutralize law enforcement decision making through unbiased, technological automation—fostering a fairer process of policing in an era that is inundated with accusations of racially inequitable policing.⁷¹

65. See *id.* at 16-17 (explaining various databases police use for FRT matches); see also Ferguson, *supra* note 62, at 1119-20 (describing variety of FRT database compositions).

66. See GARVIE ET AL., *supra* note 54, at 16 (distinguishing FRT databased comprised of mugshots versus those comprised of drivers’ license photos).

67. See *id.* at 2 (warning databases using driver’s license pose greater privacy concerns); see also Drew Harwell, *FBI, ICE Find State Driver’s License Photos Are a Gold Mine for Facial-Recognition Searches*, WASH. POST (July 7, 2019), <https://www.washingtonpost.com/technology/2019/07/07/fbi-ice-find-state-drivers-license-photos-are-gold-mine-facial-recognition-searches/> [https://perma.cc/TB9B-FQM2] (discussing concern over driver’s license databases because those included never charged with crime).

68. See Lauren Feiner & Annie Palmer, *Rules Around Facial Recognition and Policing Remain Blurry*, CNBC (June 14, 2021), <https://www.cnbc.com/2021/06/12/a-year-later-tech-companies-calls-to-regulate-facial-recognition-met-with-little-progress.html> [perma.cc/SC2E-EX22] (highlighting private companies developing FRT point to law enforcement benefits); see also WORLD ECON. F., A POLICY FRAMEWORK FOR RESPONSIBLE LIMITS ON FACIAL RECOGNITION USE CASE: LAW ENFORCEMENT INVESTIGATIONS 3, 4 (2022) https://www3.weforum.org/docs/WEF_Facial_Recognition_for_Law_Enforcement_Investigations_2022.pdf [https://perma.cc/-MB2N-LFXJ] [hereinafter FRAMEWORK FOR RESPONSIBLE LIMITS ON FACIAL RECOGNITION] (arguing FRT use within proposed framework will assist in stopping crime).

69. See *NYPD Questions and Answers Racial Recognition*, N.Y.C. POLICE DEP’T, <https://www.nyc.gov/site/nypd/about/about-nypd/equipment-tech/facial-recognition.page> [https://perma.cc/63-VN-33YE] (arguing FRT’s success in assisting police investigations). More specifically, the NYPD asserts that FRT has helped solve sixty-eight murders, seventy-seven rapes, 386 robberies, and 525 grand larcenies. See *id.*

70. See Lee Rainie et al., *Public More Likely to See Facial Recognition Technology as Good, Rather than Bad for Society*, PEW RES. CTR. (Mar. 17, 2022), <https://www.pewresearch.org/internet/2022/03/17/public-more-likely-to-see-facial-recognition-use-by-police-as-good-rather-than-bad-for-society/#:~:t> [https://perma.cc/UL4V-XER9] (outlining statistics of study regarding public perception of FRT). Indeed, 46% of surveyed Americans believe widespread police use of FRT would be positive for society, whereas 27% believe its widespread use would be negative. See *id.* Of those surveyed, however, 27% expressed no opinion on the matter. See *id.*

71. See *id.* (noting 34% of U.S. adults believe FRT will create fairer policing system); Moy, *supra* note 1, at 159 (explaining technology tools in policing generates perception of neutrality); see also Johnson et al., *supra* note 12, at 8 (highlighting humanity’s tendency to trust artificial intelligence).

3. *Racialized Impact of FRT*

Despite proponents' assertions of neutrality, research suggests that police use of FRT is anything but neutral.⁷² According to a 2019 study conducted by the National Institute of Standards and Technology (NIST), which concerned the accuracy of facial recognition algorithms, false positives occurred at higher frequencies in West and East African and East Asian descent than their white counterparts.⁷³ The racial discrepancy in false matches may result from the racial demographics of the coders who originally constructed the algorithms.⁷⁴ As white male coders predominantly created FRT, they trained algorithms to differentiate between features readily apparent in their own race, but not necessarily in others.⁷⁵ This theory finds support in a prior NIST study that indicated algorithms developed by Asian engineers more accurately identified Asian faces than faces of other races.⁷⁶

Indeed, the race-based inaccuracies embedded in FRT's algorithmic code contributed to the false arrests of three Black men in the United States: Robert Williams, Michael Oliver, and Nijeer Parks.⁷⁷ In fact, the police arrested Mr. Parks based almost entirely on a false FRT match.⁷⁸ While Mr. Parks, Mr. Williams, and Mr. Oliver are the only known Black men who experienced the indignity of false arrest because of botched FRT matches, some critics of FRT warn that there could be more Black people who suffer false arrests, or even unjust

72. See Lee & Chin, *supra* note 9 (maintaining FRT use by police disproportionately affects people of color). The technology's inaccurate identification of minority faces coupled with disparate policing practices in communities of color accounts for this disparity. See *id.*; Breland, *supra* note 57 (detailing development and subsequent racial inaccuracies of FRT); Johnson et al., *supra* note 12, at 8 (citing study indicating FRT use increased Black versus white disparity in arrest rates).

73. See PATRICK GROTH ET AL., NAT'L INST. OF STANDARDS & TECH., FACE RECOGNITION VENDOR TEST (FRVT) PART 3: DEMOGRAPHIC EFFECTS 2 (2019), <https://nvlpubs.nist.gov/nistpubs/ir/2019/nist.ir.8280.pdf> [<https://perma.cc/C79X-8XX5>] (highlighting NIST study of 189 algorithms indicating higher FRT inaccuracy rates amongst minorities). Notably, these inaccuracies vary widely across different FRT algorithms, varying from error rates of ten to one hundred times as many false positives. See *id.* at 6.

74. See Breland, *supra* note 57 (emphasizing FRT engineers predominantly white).

75. See *id.* (explaining creation and training of FRT algorithm). According to Joy Buolamwui, a researcher at MIT, this phenomenon occurs because coders create their algorithms based on their own biases and past experiences. See *id.* (expounding upon history of racialized code). Moreover, while the algorithm is theoretically designed to improve and increase its accuracy as it learns, the algorithm is primarily trained with white data sets. See *id.*

76. See P. Jonathon Phillips et al., *An Other-Race Effect for Face Recognition Algorithms*, ACM TRANSACTIONS ON APPLIED PERCEPTION, Feb. 2, 2011, at 1, 5 (explaining "other race effect" apparent because Asian algorithms more accurately identified Asian faces).

77. See Kashmir Hill, *Another Arrest, and Jail Time, Due to a Bad Facial Recognition Match*, N.Y. TIMES (Dec. 29, 2020), <https://www.nytimes.com/2020/12/29/technology/facial-recognition-misidentify-jail.html> [<https://perma.cc/F5CT-Q9CG>] (detailing FRT resulted in false arrests of three Black men). Despite Mr. Parks being thirty miles from the incident, the police arrested him for shoplifting candy and attempting to hit a police officer with a vehicle, because his face generated a "match" within the FRT database. See *id.* New Jersey investigators generated the match, and the match was "verified" by a detective and an employee. See *id.* According to Mr. Parks, the only similarity between himself and the photo of the suspect, was that they both have beards. See *id.*

78. See *id.* Mr. Parks spent ten days in jail and 5,000 dollars representing himself before law enforcement released him for lack of evidence. See *id.*

incarcerations, because of police reliance on inaccurate FRT.⁷⁹ In response to accusations of racially-biased technology, proponents of FRT point to its increased algorithmic accuracy since the NIST conducted its 2019 study.⁸⁰ Even in light of these improvements, detractors note that FRT’s algorithms nevertheless persist in producing inaccurate results, and further argue that the police can still use error-free FRT in a discriminate manner.⁸¹

Beyond the racial disparity in identification error rates, research suggests that police operated FRT increases the racial disparity in arrest rates.⁸² Specifically, a 2016 study researching arrest rates in 1,136 U.S. cities found that local law enforcement agencies using FRT experienced a 55% increase in Black arrest rates in comparison to their white counterparts.⁸³ Some theorists suggest users’ belief in the inherent “correctness” of technologically created outputs—such as a potential FRT match—as one rationale for the increased disparity.⁸⁴ Additionally, because FRT generates a multitude of potential matches, human decision-making ultimately determines which output to select as a match.⁸⁵ When an output matches an officer’s own implicit biases, that officer finds the match more reliable than those that do not match their biases.⁸⁶ In a society where racial biases are already systemically embedded in policing, FRT use perpetuates and

79. See *id.* (explaining attorney’s believe more Black men falsely arrested due to FRT); see also Bobby Allyn, ‘The Computer Got It Wrong’: How Facial Recognition Led to False Arrest of Black Man, NPR (June 24, 2020), <https://www.npr.org/2020/06/24/882683463/the-computer-got-it-wrong-how-facial-recognition-led-to-a-false-arrest-in-michig> [https://perma.cc/835T-4NR2] (detailing Mr. Williams’s false arrest due to FRT).

80. See James Andrew Lewis, *Regulating Facial Recognition Technology*, CTR. FOR STRATEGIC & INT’L STUD. (June 28, 2021), <https://www.csis.org/analysis/regulating-facial-recognition-technology> [https://perma.cc/98AV-7YJ4] (arguing improvements in technology demonstrate unwarranted outcry).

81. See Khari Johnson, *The Hidden Role of Facial Recognition Tech in Many Arrests*, WIRED (Mar. 7, 2022), <https://www.wired.com/story/hidden-role-facial-recognition-tech-arrests/> [https://perma.cc/BZ73-NMCG] (noting improvements in technology still result in inaccurate matches); see also Alex Najibi, *Racial Discrimination in Face Recognition Technology*, HARV. UNIV. GRADUATE SCH. OF ARTS & SCI., <https://sitn.hms.harvard.edu/flash/2020/racial-discrimination-in-face-recognition-technology/> [https://perma.cc/67Q7-7G98] (warning of continued racial disparity in policing even if technologies’ accuracy improves); Shira Ovide, *A Case for Banning Facial Recognition Technology*, N.Y. TIMES (Aug. 1, 2021), <https://www.nytimes.com/2020/06/09/technology/facial-recognition-software.html> [https://perma.cc/VZE5-YKRU] (arguing perfect FRT still subject to misuse). For example, Baltimore police used FRT to identify protestors involved in the Freddie Gray Protest, indicating the technology’s susceptibility to misuse. See Ovide, *supra*.

82. See Johnson et al., *supra* note 12, at 8 (highlighting increased disparity in arrest rates from 2016 study).

83. See *id.* at 7-8 (citing statistics of Black versus white arrest gap). The overall 55% increase in Black arrest rates, coupled with the 21% decrease in white arrest rates in FRT deploying agencies, contributes to the increase in the arrest rate gap. See *id.* (providing statistics of arrest rates by race).

84. See *id.* at 8 (explaining human tendency to defer to AI statistics); Moy, *supra* note 1, at 161 (discussing AI’s “masking” effect on potential inherent technological biases). The masking of embedded biases, along with police forces’ lack of knowledge regarding the technology’s mechanisms, results in police agencies’ unknowing participation in perpetuating Black criminality. See Moy, *supra* note 1, at 161.

85. See Johnson et al., *supra* note 12, at 2-3 (noting FRT provides guidance whereas interpretation left to user’s discretion).

86. See *id.* at 8 (explaining decision makers make choices reinforced by their own inherent biases); Moy, *supra* note 1, at 155-56 (discussing potential of police using FRT more likely to misidentify matches). Because FRT does not render a single match, but multiple ones, Black people are falsely matched at disproportionate rates when compared to white people in response to police investigations. See Moy, *supra* note 1, at 164-65 (explaining racial bias within mechanics of FRT).

exacerbates these biases, with artificial intelligence serving as the “neutral” rationale.⁸⁷

Although racial disparities in both FRT’s accuracy and deployment are demonstrably apparent, state and local police face no legal auditing requirement if they choose to use it in the field.⁸⁸ While some agencies purport to internally audit officers’ use of FRT, in practice, multiple auditing programs are nonoperational.⁸⁹ For example, FRT guidelines in Pinellas County, Florida require auditing, but in reality, no such auditing occurs.⁹⁰ In an attempt to rationalize this incongruity, the Sheriff of Pinellas County exclaimed, “We don’t want to police our users.”⁹¹ Pinellas County’s decision not to enforce its audit requirements has broad reaching effects, as many other local police agencies utilize Pinellas’s FRT system and depend on its “auditing” services.⁹²

Equally concerning, and perhaps contributing to the racial disparities in FRT related arrests, are law enforcement agencies’ varying standards for the permissible uses of FRT.⁹³ Defined as “use policies,” these programs inform an officer of the specific scenarios in which they have the authority to deploy FRT.⁹⁴ Theoretically, FRT use policies should delineate clear requirements—providing officers with clear guidance that complies with canonical Fourth Amendment search standards.⁹⁵ Many agencies maintain that their FRT use policies provide

87. See Johnson et al., *supra* note 12, at 9 (maintaining likelihood of FRT use to reinforce and amplify racial bias in legal system); see also Nick Cumming-Bruce, *U.N. Panel: Technology in Policing Can Reinforce Racial Bias*, N.Y. TIMES (Nov. 26, 2020), <https://www.nytimes.com/2020/11/26/us/un-panel-technology-in-policing-can-reinforce-racial-bias.html> [<https://perma.cc/NQ5A-UD4R>] (detailing United Nation (U.N.) committee’s warning racism exacerbated through artificial intelligence use in law enforcement).

88. See Breland, *supra* note 57 (highlighting lack of laws requiring local police to audit FRT technologies for accuracy).

89. See GARVIE ET AL., *supra* note 54, at 60 (explaining some agencies with use policies do not actually subject users to internal audit).

90. See *id.* (highlighting Pinellas County sheriff’s admission no auditing occurs despite existence of auditing policy).

91. See *id.*

92. See *id.* at 4 (explaining Pinellas County FRT system most frequently used FRT system in country); Jennifer Valentino-DeVries, *How the Police Use Facial Recognition, and Where It Falls Short*, N.Y. TIMES (Jan. 12, 2020), <https://www.nytimes.com/2020/01/12/technology/facial-recognition-police.html> [<https://perma.cc/LP9N-FDEH>] (describing breadth of data in Pinellas County database) The Pinellas County system boasts a database of thirty million photos comprised of driver’s license photos, mugshots, and juvenile booking photos. See Valentino-DeVries, *supra* (detailing far reach of Pinellas County’s FRT database). Moreover, the Pinellas County database receives approximately 8,000 user searches per month. See GARVIE ET AL., *supra* note 54, at 26.

93. See GARVIE ET AL., *supra* note 54, at 37 (describing varying standards for FRT use across police agencies).

94. See *id.* (defining use policy). Typically, use policies further elaborate on whether the agency requires individualized suspicion to deploy the technology or if the technology should be limited to investigating more serious offenses. See *id.*

95. See *id.* (outlining various use policy standards across agencies); see also N.Y.C. POLICE DEP’T, *FACIAL RECOGNITION: IMPACT & USE POLICY 4* (Apr. 11, 2021), https://www.nyc.gov/assets/nypd/downloads/pdf/public_information/post-final/facial-recognition-nypd-impact-and-use-policy_4.9.21_final.pdf [<https://perma.cc/MRK7-C2B8>] (detailing NYPD’s FRT use policy). While NYPD’s policy begins in generalities declaring that FRT may be used for “lawful investigative purpose only,” the policy continues by specifying scenarios where

that a match alone merely initiates an investigation, and in isolation cannot establish probable cause for a warrant.⁹⁶ Nevertheless, of the fifty-two agencies surveyed in a Georgetown University study, almost half had no such use policy in place.⁹⁷ Further, some agencies with FRT use policies do not even require individualized suspicion, rather, FRT must be deployed “for criminal justice or law enforcement purposes,” a vague and malleable standard.⁹⁸ Under such indeterminate use policies, police deployment of FRT undoubtedly affects Black people in greater frequency because their communities experience heavier police surveillance.⁹⁹

4. Proposed Best Practices for FRT

In response to activists’ growing civil liberties concerns, scholars have suggested several best practices for police forces to use when deploying FRT.¹⁰⁰ To prevent the most egregious privacy violations, Georgetown researchers propose a moratorium on searches in FRT databases which contain driver’s licenses or identification (ID) photos.¹⁰¹ Further, they urge a prohibition on real-time surveillance through video footage in the absence of a public emergency or authorized warrant.¹⁰² But, the prohibitions end there, as they also argue that police should continue to use FRT for identification and investigation, so long as the

use is permissible, such as when police possess probable cause the individual is committing a crime, or to assist in identifying a deceased person. See N.Y.C. POLICE DEP’T, *supra*.

96. See N.Y.C. POLICE DEP’T, *supra* note 95, at 4 (explaining match alone fails to establish probable cause for arrest or reasonable suspicion for stop); see also Joanne Cavanaugh Simpson, *South Florida Police Widely Use Facial Recognition, Yet Resist Policies to Curb Abuse. That’s a Problem for People of Color.*, S. FL. SUN SENTINEL (Dec. 22, 2021), <https://www.sun-sentinel.com/local/fl-ne-police-facial-recognition-20211222-egzng-wcvd5goddw5juxqy4idp4-story.html> [https://perma.cc/4LWN-FFMY] (quoting Broward County Sheriff’s assertion agents cannot arrest individual solely on basis of FRT).

97. See GARVIE ET AL., *supra* note 54, at 37 (noting twenty-four agencies failed to respond to request for use policies). Five of those agencies outwardly admitted to not administering a FRT use policy. See *id.* Moreover, activists fear the police lack transparency regarding how and when they use FRT. See Feiner & Palmer, *supra* note 68 (warning limited information on police use of FRT could pose “chilling effect”).

98. See GARVIE ET AL., *supra* note 54, at 37 (highlighting generalized “police investigation” use policies). Without an individualized suspicion requirement, an officer can cite virtually any tangentially related criminal justice purpose to deploy FRT against an individual of their choice. See *id.* at 39. Only three of the fifty-two agencies surveyed required probable cause for an officer to deploy FRT, and only ten required reasonable suspicion. See *id.* at 37; *supra* note 25 and accompanying text (defining constitutional standard for probable cause); see also *supra* note 30 (discussing lesser constitutional standard of reasonable suspicion).

99. See *supra* note 51 (highlighting heightened police presence and police activity in Black communities); Simpson, *supra* note 96 (citing statistics of South Florida FRT scans on Black people). In Broward County, 80% of police-conducted FRT scans were of Black individuals; in Palm Beach County, 60% were of Black individuals. See Simpson, *supra* note 96. Both statistics are higher than the region’s Black population and its arrest rates. See *id.*

100. See GARVIE ET AL., *supra* note 54, at 62-71 (listing numerous procedures, changes, and standards to ensure equitable FRT use); see also FRAMEWORK FOR RESPONSIBLE LIMITS ON FACIAL RECOGNITION, *supra* note 68, at 20-26 (outlining best practices for proportional and ethical use of FRT).

101. See GARVIE ET AL., *supra* note 54, at 68 (calling for moratorium on databases comprised of ID photos until appropriate regulating legislation passes). Garvie argues that these databases are highly troubling because they are comprised predominantly of law-abiding Americans. See *id.* at 2.

102. See *id.* at 64 (calling for extremely restricted use of FRT during real-time surveillance).

database contains only mugshots and the officer possesses individualized suspicion.¹⁰³ Concerns about unregulated FRT use by police are not unique to the United States—the U.N.’s report on best FRT use practices calls for proportional use that respects human dignity and transparency regarding the specific technology utilized and how the police use said technology.¹⁰⁴

Yet, not all critics believe FRT can ever be used in an ethical and equitable manner.¹⁰⁵ Many maintain that even police use of FRT that is restricted to mugshot databases is problematic because Black people are arrested at higher rates for committing the same crimes as white people.¹⁰⁶ Under this reasoning, not only are the police more likely to utilize FRT on Black people, but a Black person’s face is more likely to render a “match” in the system because their faces are oversaturated in FRT databases.¹⁰⁷ Some who acknowledge the problems

103. See *id.* at 62 (outlining recommendations for mugshot database use). The report recommends individualized suspicion of criminal conduct for proper FRT deployment and suggests that police routinely scrub the databases for those found innocent or whose charges were dismissed. See *id.* at 62-63. But see Peter N.K. Schuetz, *Fly in the Face of Bias: Algorithmic Bias in Law Enforcement’s Facial Recognition Technology and the Need for an Adaptive Legal Framework*, 39 MINN. J.L. & INEQUALITY 221, 251 (2021) (explaining requiring probable cause still unlikely to insulate FRT from algorithmic bias); KATE CRAWFORD ET AL., AI NOW INST. N.Y.U., 2019 REPORT 12 (Dec. 2019), https://ainowinstitute.org/AI_Now_2019_Report.pdf [https://perma.cc/TBF8-SY8U] (suggesting proposed strategies to make FRT more reliable fail to address existing systemic inequalities).

104. See FRAMEWORK FOR RESPONSIBLE LIMITS ON FACIAL RECOGNITION, *supra* note 68, at 20-26 (explaining preferred FRT use respects human dignity, proportionality, and transparency). Specifically, the U.N. guidelines call for nondiscriminatory FRT use against indigenous peoples and minorities, and that documented use describes the rationale for deploying the technology and is subject to oversight. See *id.* at 15, 20. The U.N. also calls for law enforcement agencies to disclose the specific technology they use, the vendor they purchase it from, the methods they use to reference the FRT database, and the technology’s accuracy rate. See *id.* at 20.

105. See Butler, *supra* note 6, at 1453 (emphasizing American criminal legal system designed specifically for police to assert control over Black men); Johnson, *supra* note 12, at 2 (highlighting Black people’s overrepresentation in mugshot databases increases likelihood of FRT misidentification); see also Moy, *supra* note 1, at 158 (arguing Black people arrested at higher rates therefore overrepresented in mugshot databases); LENA GERAGHTY, NAT’L LEAGUE OF CITIES, FACIAL RECOGNITION REPORT 12-13 (2021), <https://www.nlc.org/wp-content/uploads/2021/04/NLC-Facial-Recognition-Report.pdf> [https://perma.cc/T9NZ-2TEU] (explaining combination of racial inaccuracies of technology and overrepresentation of Black people in databases harmful); Kade Crockford, *How Is Face Recognition Surveillance Technology Racist?*, ACLU NEWS & COMMENT (June 16, 2020), <https://www.aclu.org/news/privacy-technology/how-is-face-recognition-surveillance-technology-racist> [https://perma.cc/85B3-7HKV] (explaining reasoning behind overrepresentation of Black people in mugshot databases); Radley Balko, *There’s Overwhelming Evidence that the Criminal Justice System Is Racist. Here’s the Proof*, WASH. POST (June 10, 2020), <https://www.washingtonpost.com/graphics/2020/opinions/systemic-racism-police-evidence-criminal-justice-system/> [https://perma.cc/WC6A-A9A2] (detailing discriminatory police practices). As one officer quipped regarding racial profiling, “it never happens . . . and it works.” Balko, *supra*.

106. See Crockford, *supra* note 105 (noting racial disparity in arrest rates); Moy, *supra* note 1, at 158 (discussing issue with mugshot databases). Even though Black and white people use cannabis at relatively similar rates, Black people are four times more likely to be arrested for cannabis possession. See Crockford, *supra* note 105. Because police arrest Black people at higher rates than white people, Black people are consequently overrepresented in the databases, therefore, even if FRT was deployed equally against Black and white individuals, Black match rates would be disproportionately higher than white ones. See Moy, *supra* note 1, at 158-59 (discussing technologies ability to replicate preexisting inequalities).

107. See *supra* note 105, at 13 (noting Black people encounter police disproportionately and are therefore overrepresented in mugshot databases); see also Ovide, *supra* note 81 (arguing FRT susceptible to misuse by police against Black people); Crockford, *supra* note 105 (explaining Black people most vulnerable to FRT due to exacerbation of preexisting inequities).

associated with mugshot databases call for extremely limited use of FRT, such as requiring probable cause prior to deployment.¹⁰⁸ Others argue not for regulation, but for the complete abolition of police use of FRT as the only solution to protect Black individuals from an already unjust justice system.¹⁰⁹

C. Legal Protections Against FRT

1. Emerging Technology Jurisprudence and Mosaic Theory

While FRT implicates privacy concerns for Black and white individuals alike, the Court has yet to speak on the potential constitutional constraints regarding use of the technology.¹¹⁰ Nevertheless, the Court’s prior rulings on technology used by police could illuminate whether there remains a constitutional path to protection via the Fourth Amendment’s prohibition of unreasonable searches and seizures.¹¹¹ The Court first addressed Fourth Amendment implications of advanced technology use by police in the modern era in *Kyllo v. United States*.¹¹² In *Kyllo*, federal agents, suspicious the defendant was illegally growing marijuana, used a thermal imaging device to detect infrared radiation emanating from the defendant’s home.¹¹³ The Court held that the police’s use of infrared technology to scan the defendant’s home amounted to a Fourth Amendment violation due to the intimacy of the details gathered simply by virtue of them occurring within the home.¹¹⁴

108. See Ferguson, *supra* note 62, at 1999 (arguing for probable cause requirement for FRT face identification use); see also Vivian Wesson, *Why Facial Recognition Technology Is Flawed*, 92 N.Y. STATE BAR J. 20, 22 (2020) (suggesting strict regulations on use and diversifying technology workforces to solve racial disparity problem); Lee & Chin, *supra* note 9 (arguing for increased protection for Black communities through stricter federal privacy laws). To address disparate harms of FRT, some call for legislation that strictly regulates how companies collect biometric information. See Lee & Chin, *supra* note 9.

109. See Crockford, *supra* note 105 (calling for ban of FRT to protect marginalized communities); see also Annslee Perego, Note, *A New Age of Surveillance: Facial Recognition in Policing and Why It Should Be Abolished*, 28 CARDOZO J. EQUAL RTS. & SOC. JUST. 79, 103 (2021) (urging abolition of FRT until inaccuracies of technology eliminated and use limited); Melanie A. Bigos, Note, *Let’s “Face” It: Facial Recognition Technology, Police Surveillance, and the Constitution*, 22 J. HIGH TECH. L. 52, 94 (2021) (requesting temporary halt on FRT deployment due to racial bias in technology); *supra* note 81 and accompanying text (arguing improved technology still susceptible to abuse by police).

110. See GARVIE ET AL., *supra* note 54, at 16 (discussing silence from Court regarding potential constitutional violations of FRT).

111. See *id.* (pointing to Fourth Amendment jurisprudence to postulate Court’s position on FRT); see also Lee & Chin, *supra* note 9 (highlighting Court recognizes Fourth Amendment limitations on evolving technology surveillance); *supra* section II.A (outlining basic tenants of Fourth Amendment protections).

112. 533 U.S. 27, 29 (2001) (discussing constitutionality of police usage of infrared technology to gather details of defendant’s home).

113. See *id.* at 29-30 (explaining agent use of technology motivated by marijuana growth’s high heat requirement). The scanner enhanced the officer’s senses by detecting infrared rays not available to the naked eye. See *id.* at 29. Police administered the technology from a parked car across the street from the defendant’s home. See *id.* at 30.

114. See *id.* at 34 (holding sense-enhancing technology gathering details of home violated Fourth Amendment). The Court emphasized that both the public’s lack of ready access to the technology in question, and its use to collect information from the home—a constitutionally protected area—amounted to a Fourth Amendment violation. See *id.*

Technological advances in the past twenty years further complicate the Court's Fourth Amendment jurisprudence, generating inconsistent holdings regarding which technologies violate the Fourth Amendment and which do not.¹¹⁵ While the *Kyllo* Court emphasized the violation due to the details gathered of the defendant's home, a space that enjoys the utmost constitutional protection, most lower courts continue to hold that incriminatory acts captured via public surveillance cameras do not amount to a constitutional search.¹¹⁶ Courts have likened the information gathered via surveillance video to that which the police could observe with the naked eye, further distinguishing their decisions from *Kyllo*.¹¹⁷ Such reasoning by the lower courts appears to indicate that, as long as the police conduct their surveillance activity in public, no search occurs within the meaning of the Fourth Amendment.¹¹⁸

Nevertheless, the development of mosaic theory by some courts could outline a path to implement constitutional limitations on police use of FRT.¹¹⁹ While traditional Fourth Amendment analysis considers each discrete step taken by the government in isolation, mosaic theory considers the accumulated state behavior to determine if a search has occurred.¹²⁰ For example, in *Carpenter v. United*

115. See Lee & Chin, *supra* note 9 (discussing complicating factor of technological advances for Court). The jurisprudence protects against technological advances in some instances, like preventing compulsion of geolocation information from cell phone providers, yet concedes to those advances in other cases, such as allowing police to surveil a backyard through helicopter service at 400 feet. See *id.* (discussing Court's expectation of privacy jurisprudence). Compare *Carpenter v. United States*, 138 S. Ct. 2206, 2219 (2018) (holding collection of cell-site location data for span of 127 days violative of Constitution), with *Florida v. Riley*, 488 U.S. 445, 451-52 (1989) (holding no reasonable expectation of privacy from helicopter flying 400 feet above property).

116. See *United States v. Tuggle*, 4 F.4th 505, 513 (7th Cir. 2020) (holding surveillance cameras installed on public property not violative of Fourth Amendment). While the police installed the surveillance cameras without a warrant, outside of the defendant's home, the Seventh Circuit held that the surveillance did not violate an objective or subjective expectation of privacy. See *id.* at 513-17; see also *United States v. Vankersteren*, 553 F.3d 286, 287 (4th Cir. 2009) (holding hidden, motion activated video camera placed in defendant's open field constitutional); *Katz v. United States*, 389 U.S. 347, 361 (1967) (Douglas, J., concurring) (outlining Fourth Amendment test evaluating subjective and objective expectation of privacy). While in *Vankersteren*, the defendant owned the open field where police placed the camera, distinguishing this case from *Tuggle*, the defendant nevertheless had a lesser expectation of privacy in an open field located a mile from his home. See *Vankersteren*, 553 F.3d at 290; see also *United States v. Dunn*, 480 U.S. 294, 301 (1987) (outlining factors analyzed to determine open field status).

117. See *Vankersteren*, 553 F.3d at 290 (quoting *United States v. Taketa*, 923 F.2d 655 (9th Cir. 1991)) (indicating public surveillance amounts to no greater intrusion than general police observation with naked eye).

118. See David Gray, *Bertillonage in an Age of Surveillance: Fourth Amendment Regulation of Facial Recognition Technologies*, 24 SMU SCI. & TECH. L. REV. 3, 19 (2021) (highlighting certain precedents indicate no constitutional protection for technologies deployed in public); *supra* note 116 and accompanying text (explaining no reasonable expectation of privacy breached by public video surveillance). But see *Katz*, 389 U.S. at 353 (holding defendant's privacy breached by government wiretapping conversations within public phone booth).

119. See *Carpenter*, 138 S. Ct. at 2217-19 (explaining government collected CSLI over 127 days violates reasonable expectation of privacy); see also Gray, *supra* note 118, at 28 (arguing broad implementation of FRT violates *Carpenter* holding); Daniel Weatherholt, Comment, *Facing Carpenter: Facial Recognition Technology and the Fourth Amendment*, 56 TULSA L. REV. 339, 362 (2021) (asserting *Carpenter* applies to FRT deployed by long term surveillance, but not other forms).

120. See Orin S. Kerr, *The Mosaic Theory of The Fourth Amendment*, 111 MICH. L. REV. 311, 325 (2012) (discussing mosaic theory's introduction to Fourth Amendment jurisprudence).

States, the police obtained 127 days of the defendant’s cell-site location information (CSLI) of the defendant pursuant to statutory grant.¹²¹ Officers then used CSLI to obtain 12,898 location points illustrating the defendant’s movements.¹²² The Court held that police procurement of CSLI data for such a large period of time constituted an unreasonable search, alluding to mosaic theory by asserting that the collected data created “an all-encompassing record of the holder’s whereabouts. . . . [P]rovid[ing] an intimate window into a person’s life”¹²³ Although not explicitly endorsed in *Carpenter*, it is arguable that the Court implicitly adopted mosaic theory when it analyzed the totality of the government’s behavior.¹²⁴ The D.C. Court of Appeals, however, explicitly adopted mosaic theory in *United States v. Maynard*, holding that prolonged, warrantless GPS surveillance of the defendant’s car violated the Fourth Amendment, as prolonged surveillance, in contrast to short-term surveillance, reveals “what a person does repeatedly, what he does not do, and what he does ensemble.”¹²⁵ These cases demonstrate that mosaic theory presents a potential pathway for constitutional protection against police operated technology that stores long periods of data which showcase an individual’s public behavior.¹²⁶

2. State and Federal Legislation Limiting or Banning FRT

Rather than wait idly for the Supreme Court to speak on the constitutionality of police use of FRT, some cities and states have recognized the danger of its unregulated use and taken action.¹²⁷ For example, Oregon and California passed legislation that bans the use of FRT with respect to footage obtained through police-worn body cameras.¹²⁸ Massachusetts and Virginia require at least

121. See *Carpenter v. United States*, 138 S. Ct. 2206, 2212 (2018) (detailing police requests for CSLI info in compliance with state statute). CSLI provides a time stamp of when a user’s phone connects to a specific cell site location. See *id.* at 2211. After arresting four men suspected of robbing a Radio Shack, officers grew suspicious of the defendant when the suspects identified him as one of their accomplices. See *id.* at 2212.

122. See *id.* (explaining data points collected lead to defendant’s federal charges).

123. See *id.* at 2217 (explaining *Carpenter*’s expectation of privacy reasonable in totality of his physical locations).

124. See Ben Vantson, Note, *Putting Together the Pieces: The Mosaic Theory and Fourth Amendment Jurisprudence*, 124 W. VA. L. REV. 647, 671 (2021) (explaining *Carpenter* test indicates court adopted mosaic theory without explicitly stating so).

125. See 615 F.3d 544, 562 (D.C. Cir. 2010) (explaining whole of individual’s movements not readily accessible to public). Police grew suspicious the defendants, who were nightclub owners, were distributing drugs, so they installed a GPS on the defendant’s car and tracked his movements for twenty-four hours a day for twenty-eight days. See *id.* at 549, 555. The police originally obtained a warrant to install the GPS but failed to execute it properly. See *id.* at 555.

126. See Weatherholt, *supra* note 119, 358-62 (arguing application of *Carpenter* reasoning prohibits police use of FRT for long-term surveillance).

127. See Gray, *supra* note 118, at 9 (noting some jurisdictions took steps to regulate use of FRT); Valentino-DeVries, *supra* note 92 (noting issues of false matches influenced cities like San Francisco to institute FRT bans); Wesson, *supra* note 108, at 21 (highlighting state legislative efforts to regulate law enforcement’s use of FRT).

128. See OR. REV. STAT. § 133.741 (2023) (banning FRT use on footage obtained from police body cameras); *What Law Enforcement Should Know Before Using Facial Recognition Technology in California*, CLEARVIEW AI (Nov. 30, 2022), [https://www.clearview.ai/post/what-law-enforcement-should-know-before-using-facial-recognition-technology-incalifornia#:~:text=CALIFORNIA%20AB%201215%20\(2019\)&text=This%20moratorium-](https://www.clearview.ai/post/what-law-enforcement-should-know-before-using-facial-recognition-technology-incalifornia#:~:text=CALIFORNIA%20AB%201215%20(2019)&text=This%20moratorium-)

individualized suspicion for police to use FRT.¹²⁹ A handful of cities have acted more drastically—passing complete bans on police use of FRT with some citing the public’s increased consciousness of racist policing as a catalyst for these decisions.¹³⁰ And yet the longevity of these bans remains in question, as some cities like New Orleans show signs of backpedaling on the original rigidity of their restrictions.¹³¹

Federally, in the previous Congressional session, lawmakers introduced two bills to mitigate the racialized effects of police deployed FRT in the previous congressional session.¹³² Representative Ted Lieu introduced The Facial Recognition Act of 2022, which would require police to obtain a warrant before using the technology.¹³³ The Bill does, however, allow for warrantless FRT deployment in “emergency” situations.¹³⁴ In contrast, Representative Pramila Jayapal’s Facial Recognition and Biometric Technology Moratorium Act would institute a complete ban on FRT use by federal agencies absent explicit congressional authorization, while withholding federal Byrne grant funds from states that

%20expires%20on%20January,the%202022%20Californian%20legislative%20session [https://perma.cc/DTT-3-77TU] (discussing California’s three-year temporary moratorium on FRT scanning of policy body camera footage).

129. See MASS. GEN. LAWS ANN. ch. 6, § 220(b) (West 2023) (outlining regulations on public agency use of FRT). Law enforcement must submit written requests to the registrar of motor vehicles, the state police department, or the FBI to use FRT. See *id.* Some permissible uses of FRT include executing a criminal warrant or identifying a deceased person in emergency circumstances. See *id.*; VA. CODE ANN. § 15.2-1723.2(A) (2023) (permitting FRT in cases of reasonable suspicion or to identify incapacitated persons). California’s moratorium expired on January 1, 2023. See *What Law Enforcement Should Know Before Using Facial Recognition Technology in California*, *supra* note 128 (discussing California’s FRT bans expiration).

130. See BAN FACIAL RECOGNITION, <https://www.banfacialrecognition.com/map/> (last visited March 30, 2023) (detailing jurisdictions with outright ban on FRT); Kim Lyons, *Minneapolis Prohibits Use of Facial Recognition Software by Its Police Department*, VERGE (FEB. 13, 2021), <https://www.theverge.com/2021/2/13/222815-23/minneapolis-prohibits-facial-recognition-software-police-privacy> [https://perma.cc/FN47-SBFM] (discussing city where George Floyd murdered moved to ban FRT citing racial biases); Alfred Ng, *Portland, Oregon, Passes Toughest Ban on Facial Recognition in US*, CNET, (Sept. 10, 2020) <https://www.cnet.com/news/politics/portland-passes-the-toughest-ban-on-facial-recognition-in-the-us/> [https://perma.cc/24YU-S6JZ] (explaining concerns of racial biases informed Oregon’s FRT ban). In total, twenty-one cities have instituted complete bans on police operated FRT. See, e.g., BOSTON, MA., MUNICIPAL CODE ch. XVI, § 16-62 (2022); MINNEAPOLIS, WI., CODE OF ORDINANCES §§ 41.100-41.180 (2023); SANTA CRUZ, CAL., MUNICIPAL CODE §§ 9.85.010-9.85.050 (2023) (enforcing prohibitions on police use of FRT).

131. See Metz, *supra* note 60 (noting change in New Orleans original ban). While New Orleans’s original law constituted an outright ban on FRT, New Orleans police may now request permission to utilize FRT when investigating violent crimes. See Paresh Dave, *U.S. Cities Are Backing off Banning Facial Recognition as Crime Rises*, U.S. NEWS (May 12, 2022), <https://www.usnews.com/news/top-news/articles/2022-05-12/u-s-cities-are-backing-off-banning-facial-recognition-as-crime-rises> (last visited March 30, 2023) (highlighting jurisdictions with original ban in place backpedaling due to rise in crime). To date, increased lobbying efforts by FRT developers has been attributed to cities’ softening their bans. See *id.*

132. See Facial Recognition Act of 2022, H.R. 9061, 117th Cong. § 101(b)(3) (2022) (requiring court authorized warrant supported by probable cause prior to police deployment of FRT); Facial Recognition and Biometric Technology Moratorium Act of 2021, H.R. 3907, 117th Cong. § 3 (2021) (prohibiting federal use of FRT absent statutory grant).

133. See H.R. 9061, § 101(b)(3) (detailing particulars of authorized application of FRT).

134. See *id.* § 101(c) (outlining exceptions to warrant requirement for FRT). Specifically, the Bill allows for warrantless FRT in situations involving danger of death or physical injury, or in instances where an officer cannot with due diligence obtain a warrant prior to use. See *id.* § 101(c)(1)(D)(I)-(II).

continue to use the technology—depriving those agencies from the greatest source of federal funding for state and local law enforcement programs.¹³⁵

III. ANALYSIS

A. Constitutional Jurisprudence Will Not Prohibit the Most Dangerous Deployment of FRT

1. Real Time Surveillance is Likely the only Form of FRT that Could be Prevented by the Court’s Fourth Amendment Jurisprudence

The Fourth Amendment’s prohibition against unreasonable searches and seizures likely extends only to real-time surveillance deployment of FRT.¹³⁶ Utilizing the Court’s reasoning in *Carpenter* and the D.C. Court of Appeals’ reasoning in *Maynard*, FRT deployed over a long period within a vast video surveillance network, targeting a specific individual or individuals, creates an “all-encompassing record” of their movements through an aggregation of data that, in turn, reveals intimate details of their life.¹³⁷ In contrast, police use of FRT during a *Terry* or traffic stop likely survives Fourth Amendment scrutiny because although it can ascertain a suspect’s identity, its use occurs in isolation.¹³⁸ Additionally, *Kyllo* would not protect against FRT deployed by police because such action occurs in public and because of the ubiquity of FRT in smartphone

135. See H.R. 3907, §§ 3-4 (prohibiting federal use of FRT while incentivizing states to follow federal moratorium); see also Russell Brandom, *Most U.S. Government Agencies Are Using Facial Recognition*, VERGE (Aug. 25, 2021), <https://www.theverge.com/2021/8/25/22641216/facial-recognition-gao-report-agency-dhs-cbp-fbi> [https://perma.cc/4XEG-U6TS] (noting Department of Homeland Security and Federal Bureau of Investigations use FRT). The Government Accountability Office conducted a report and that noted nineteen out of twenty-four federal agencies use FRT. See U.S. GOV’T ACCOUNTABILITY OFF., FACIAL RECOGNITION TECHNOLOGY: CURRENT AND PLANNED USES BY FEDERAL AGENCIES 9 (2021), <https://www.gao.gov/assets/gao-21-526/-pdf> [https://perma.cc/PM3N-27SZ]. Additionally, the Facial Recognition Moratorium Act gives the federal government the authority to authorize FRT use so long as an Act of Congress specifically describes the following: the specific biometric information the FRT seeks to obtain, the particular reason for of its use, the standards for its use, and its auditing requirements. See H.R. 3907, § 3(b)(1)-(3). The Bill incentivizes states to follow the federal government’s lead by rendering state and local governments ineligible to receive grants under the Byrne program if they do not enact substantially similar legislation. See *id.* § 4(a).

136. See Weatherholt, *supra* note 119, at 362 (arguing CSLI and FRT deployed over surveillance network share many similarities).

137. See *id.* (discussing *Carpenter*’s issue with aggregation of information and similarities to FRT). FRT deployed via a surveillance network is analogous to CSLI’s deeply revealing nature as they are both comprehensive in their reach and inescapable in their nature. See *id.* at 358-62. Specifically, surveillance FRT reveals the intimate details of an individual’s life tracking wherever they may go whether it be school, church, or the doctor’s office. See *id.* at 359. The information collected by FRT surveillance is deep, broad, and comprehensive when deployed over a long period. See *id.* at 361. Surveillance is inescapable and automatic because of the omnipresence of surveillance cameras in society. See *id.* at 362.

138. See GARVIE ET AL., *supra* note 54, at 10-11 (explaining police use of FRT to identify stopped individual). If police decide to stop an individual, due to reasonable suspicion or otherwise, their use of FRT to identify the individual only creates one data point of information, not an encapsulation of the entirety of their movements. Compare *id.* (explaining FRT use in police stops elicits identity information using database comparison), with *Carpenter v. United States*, 138 S. Ct. 2206, 2218 (2018) (likening CSLI information to ankle monitor creating almost perfect surveillance).

technology.¹³⁹ Nor would the Fourth Amendment protect against a racially motivated stop where a police officer deploys FRT because of the Court's tactful decision to render the Amendment useless in examining an officer's potential subjective racist motivations.¹⁴⁰ Therefore, the Constitution provides little relief to those most vulnerable to insidious FRT use.¹⁴¹

2. *FRT Deployed During Stops and Investigations with Mugshot Databases Pose the Greatest Danger to Black Communities*

FRT deployed during police stops and investigations poses the greatest risk to Black communities because they encounter police—and therefore the technology—at higher frequencies, *and* the embedded bias within the technology exacerbates and legitimizes notions of Black criminality.¹⁴² Regarding the higher frequency of police encounters, the Court's reasonable suspicion jurisprudence allows law enforcement to confront Black people more often than white people, giving the police abundant discretion to choose who to stop and frisk and which communities to surveil more heavily.¹⁴³ Moreover, by strategically holding that the Fourth Amendment refuses to probe into the minds of police officers, the Court created a system that inevitably stops and arrests more Black individuals than white ones.¹⁴⁴ Because these encounters are more likely to be deadly for Black people, they are more likely to hesitate to identify themselves to law enforcement and thus even more likely to be subject to FRT use, specifically in a *Terry* stop.¹⁴⁵ Consequently, not only are Black people more likely to encounter

139. See *Kyllo v. United States*, 533 U.S. 27, 37 (2001) (arguing Fourth Amendment violation occurred due to intimate nature of home). Moreover, the majority highlighted the fact that the police's infrared technology was "not in general public use", which militated in favor of a Fourth Amendment violation. See *id.* at 40. But see *Katz v. United States*, 389 U.S. 347, 351-52 (1967) (asserting Fourth Amendment protects people, not places).

140. See *supra* notes 36-38 (explaining subjective intent of officer irrelevant where probable cause exists).

141. See Butler, *supra* note 6, at 1443 (arguing Court's articulation of "reasonableness" standard legalizes police violence directed towards Black people); Weatherholt, *supra* note 119, at 361 (highlighting many dangerous uses of FRT fall outside constitutional protection); see also *supra* note 51 (discussing Black communities face higher instance of police surveillance and interaction than white communities).

142. See GERAGHTY, *supra* note 105, at 13 (highlighting Black people more likely to interact with police and appear in mugshot databases). Not only are Black people more likely to encounter the technology, FRT is also more likely to misidentify their faces, leaving them the most vulnerable to deployment by police. See *id.*; see also Moy, *supra* note 1, at 160 (arguing FRT's embedded bias shielded from public due to assumption of "neutral" technology).

143. See *supra* note 48 (discussing permissible reasonable suspicion factors in relation to race); Smyton, *supra* note 47 (comparing policing in white district and Black district in same jurisdiction). In Black communities, police focus on violence intervention via investigatory stops, while in white communities, the police act collaboratively with community members to solve problems. See Smyton, *supra* note 47; see also HINTON ET AL., *supra* note 51, at 5 (discussing "hot spot" policing targets Black and Brown communities). In Seattle, police targeted Black-operated, open-space drug markets at higher frequencies than white-operated ones. See HINTON ET AL., *supra* note 51, at 5.

144. See Crockford, *supra* note 105 (noting Black people more likely to face arrest for minor crimes); see also Gaebler et al., *supra* note 49 (highlighting police set up speed traps in Black communities more frequently than in white communities).

145. See *supra* note 53 and accompanying text (explaining Black people more likely to face death during police interaction than white people); see also Butler, *supra* note 6, at 1447 (arguing since *Terry*, police

FRT, their faces are more likely to appear in mugshot databases because of these deliberate choices by the Court to allow factors correlated with race to inform and lawfully justify police decision making.¹⁴⁶ These realities also present a serious threat to Black people’s privacy and safety, especially when considered alongside the disparities in racial accuracy amongst the algorithms.¹⁴⁷

Additionally, FRT’s match selection process and its programmatically embedded bias exacerbates and legitimizes notions of Black criminality in America.¹⁴⁸ Because FRT delivers a series of matches, it is up to a human to select the most “accurate” match.¹⁴⁹ This is problematic because decision-makers have a subconscious drive to make selections that match their preconceived biases.¹⁵⁰ As Black criminality reigns as the overarching preconceived bias in America, one can infer that when selecting an FRT match, the officer will more often choose the Black face over the non-Black face.¹⁵¹ Moreover, the Black faces that generate a “match” are also more likely to end up being an inaccurate “match” because of the racial bias embedded within the technology.¹⁵² Importantly, FRT shields these biases from public scrutiny under the technology’s guise of

specifically target Black men for stop and frisks); Lee & Chin, *supra* note 9 (explaining disparate policing practice more dangerous with use of FRT).

146. See Butler, *supra* note 6, at 1453 (exclaiming Court’s decision in *Whren* granted police “super power” to racially profile); Commonwealth v. Warren, 58 N.E.3d 333, 342 (2016) (explaining Black individual may flee from police to escape documented racial profiling); Johnson et al., *supra* note 12, at 2 (discussing Black faces’ overrepresentation in mugshot databases cause for concern); see also Moy, *supra* note 1, at 158 (arguing higher arrest rates leads to overrepresentation of Black people in mugshot databases).

147. See GERAGHTY, *supra* note 105, at 13 (arguing inaccurate technology coupled with mugshot databases leaves Black people most at risk of misidentification). The false arrests of at least three Black men because of botched FRT matches demonstrate the vulnerability of Black communities to FRT used in an investigatory capacity. See *supra* notes 77-79 and accompanying text (detailing false arrests of Mr. Parks, Mr. Williams, and Mr. Oliver).

148. See Moy, *supra* note 1, at 158-59 (asserting inequitable technologies reinforces already existing inequity). Coined as “mathwashing,” math-related programs that are not in fact equitable can be perceived as such because of reliance on technological “truthfulness.” See *id.* at 159-60.

149. See GARVIE ET AL., *supra* note 54, at 9 (explaining FRT generates several matches for law enforcement to use for leads); see also Johnson et al., *supra* note 12, at 2 (explaining algorithm generates list of candidates for police selection).

150. See Johnson et al., *supra* note 12, at 8 (discussing bias affecting decision-makers). An officer is more likely to select an FRT candidate as the proper match if that candidate aligns with their preconceived notions of what a criminal is. See *id.* Such tendencies could cause law enforcement not to question the legitimacy of investigative leads produced by FRT. See *id.* (considering deference to statistics to explain increase in Black arrest rates in agencies deploying FRT).

151. See Johnson et al., *supra* note 12, at 8 (explaining stereotyping in match selection could explain higher Black arrest rates); HINTON ET AL., *supra* note 51, at 7 (highlighting study of police indicating implicit bias informs their perception of who looks “criminal”); Butler, *supra* note 6, at 1457 (arguing overt bias against Black people unnecessary to support increased surveillance of their communities); Moy, *supra* note 1, at 161 (discussing police technology like FRT supports general perception of Black criminality).

152. See GERAGHTY, *supra* note 105, at 11-12 (explaining disparity in accuracy of FRT harms Black people); see also Breland, *supra* note 57 (attributing racial inaccuracies in FRT to racialized code built predominantly by white engineers); Sample, *supra* note 58 (highlighting even improvements in accuracy of technology rely on perfect lighting conditions).

neutrality, which further insulates FRT from critical review.¹⁵³ This insulation is dangerous because it disincentivizes policymakers to combat structural racism under the false assumption that FRT's "automating" effects have transformed policing into a race-neutral practice.¹⁵⁴

3. *The Most Dangerous Forms of FRT are the Least Likely to be Understood as Such*

Despite overwhelming evidence that the use of FRT disproportionately effects Black communities through the combination of Terry stops, use of mugshot databases, and embedded algorithmic bias, much of the commentary surrounding the technology focuses on fears of subjecting the "innocent" to FRT's invasion of privacy.¹⁵⁵ One FRT method typically associated with encroaching on the "innocent's" liberty is the inclusion of driver's licenses alongside mugshots in the comparison databases.¹⁵⁶ Those who subscribe to this criticism claim "law-abiding Americans" will face unjust exposure to FRT surveillance, preferring instead the use of databases comprised solely of mugshots—a pool better-suited with "criminals" to find a match.¹⁵⁷ Such fundamentally flawed thinking fails to acknowledge the systemic, constitutionally permissible racism that resulted in so many Black faces appearing in mugshot databases in the first place.¹⁵⁸ In

153. See Moy, *supra* note 1, at 161 (explaining masking effects of police technology). Because of human's tendency to perceive technology as "bias neutral," society is more likely to view the police's implementation of FRT as fair—rather than critically analyze it for signs of inequity. See *id.*

154. See *id.* (explaining technology's perceived neutrality prevents police from addressing inequality). If FRT is seen as race-neutral police reform, it will only serve to improve people's perception of the police without lessening the harms police inflict on communities of color. See Butler, *supra* note 6, at 1425 (asserting reform efforts dampen efforts to change systemic problems in policing).

155. See GARVIE ET AL., *supra* note 54, at 2 (raising concern FRT databases comprised of driver's license photos ensnare law-abiding Americans); see also Harwell, *supra* note 67 (noting lawmakers' concern with driver's license databases); GARVIE ET AL., *supra* note 54, at 18 (classifying real-time continuous surveillance as high risk FRT deployment).

156. See GARVIE ET AL., *supra* note 54, at 2 (highlighting at least twenty-six states use driver's licenses in FRT databases); Harwell, *supra* note 67 (noting lawmakers' concern with driver's license databases). Because of driver's license inclusion in many state FRT databases, about half of the American population has been subjected to an FRT search. See GARVIE ET AL., *supra* note 54, at 2.

157. See *id.* (raising alarm regarding inclusion of "innocent" driver's license photos in databases). Garvie stresses that FRT searches in mugshot databases are more targeted searches because they only scan for "criminal faces." See *id.* at 2, 19. Representative Elijah Cummings has also criticized FRT databases for using citizens' driver's licenses without their consent, likening their use to investigatory work conducted "in the shadows." See Harwell, *supra* note 67.

158. See *supra* notes 48, 50 (explaining jurisprudence created landscape where Black Americans fall victim to higher arrest rates). Black people are overrepresented in the mugshot databases not because Black people commit more crimes than white people, but because the Court has crafted a criminal justice system where Black lives do not have to matter to the police. See *supra* note 106 (explaining Black and white people commit crimes at comparable rates, yet Black people face higher arrest rates); Butler, *supra* note 6, at 1457 (observing Court's jurisprudence allows Black lives to matter less to police).

addition, FRT deployed for real-time surveillance causes alarm, painting a picture of a draconian surveillance state with the ability to identify and monitor its citizens in every corner of the public sphere.¹⁵⁹ While the police’s use of this type of FRT should alarm all Americans, applying the reasoning in *Carpenter*, the Court would likely strike down this FRT use as an unreasonable—and therefore unconstitutional—search.¹⁶⁰ Thus, FRT used in *Terry* stops and investigations with mugshot databases remains outside much of the discourse surrounding liberty-infringing FRT use, beyond the protection of the Constitution, and yet poses an incredible danger to Black communities.¹⁶¹

B. Pathways for Relief from FRT’s Disparate Effects

1. There Is No Best Practice for FRT Deployment in Communities of Color

While the lack of clear guidance regarding when the police may deploy FRT is cause for concern, equitable FRT advocates’ suggested remedy—that the police should adopt use policies that require particularized suspicion—will not foster equitable, unbiased deployment of FRT.¹⁶² The constitutional forgiveness of an officer’s “mistake,” considered alongside FRT’s embedded racial biases, demonstrate this reality.¹⁶³

To illustrate this point, consider the following: a patrolling police officer initiates a *Terry* stop of a Black man, not with reasonable suspicion that he

159. See GARVIE ET AL., *supra* note 54, at 4 (arguing real-time surveillance would fundamentally transform public spaces); see also Gray, *supra* note 118, at 27 (likening use of FRT across surveillance networks to ‘Minority Report’ movie). Real-time surveillance demonstrates the potential to subject all Americans to pervasive police surveillance, a burden previously only felt by Black communities. See GARVIE ET AL., *supra* note 54, at 22 (conceding Black Americans already face increased surveillance).

160. See *Carpenter v. United States*, 138 S. Ct. 2206, 2219 (2018) (holding police surveillance violated defendant’s reasonable expectation of privacy in whole of physical movements); GARVIE ET AL., *supra* note 54, at 2 (explaining local police departments seeking access to real-time surveillance FRT). Because real-time surveillance deployed across a network of cameras would aggregate an individual’s movements, the Court’s CSLI reasoning in *Carpenter* would deem such a vast level of surveillance an unreasonable search in violation of the Fourth Amendment. See *Carpenter*, 138 S. Ct. at 2219; Weatherholt, *supra* note 119, at 359-62 (concluding FRT deeply revealing, comprehensive reach, and inescapable collection akin to unconstitutional CSLI data collection).

161. See *supra* notes 157, 159 (explaining alarm with driver’s license database use and real-time surveillance use); Weatherholt, *supra* note 119, at 362 (predicting FRT use beyond real-time surveillance will not receive constitutional protection); *supra* sections III.A.2- III.A.3 (highlighting dangers for Black communities of FRT used in stops and investigations with mugshot databases).

162. See GARVIE ET AL., *supra* note 54, at 62 (urging best practice of FRT includes reasonable suspicion in order to deploy technology); see also Ferguson, *supra* note 62, at 1159 (calling for probable cause standard for FRT to prevent abuse); FRAMEWORK FOR RESPONSIBLE LIMITS ON FACIAL RECOGNITION, *supra* note 68, at 14-16 (advocating for equitable, transparent use for best practice of FRT). But see Schuetz, *supra* note 103, at 251 (maintaining flexible probable cause standard will not protect from FRT’s embedded biases). Despite calls for equitable use, FRT used in a system where facial surveillance is permissible can exacerbate preexisting inequalities. See Najibi, *supra* note 81 (arguing “perfected algorithm still vulnerable to misuse”); Crockford, *supra* note 105 (asserting proposed standards to ensure equitable use fail to acknowledge existing structural inequalities).

163. See *Heien v. North Carolina*, 574 U.S. 54, 61 (2014) (holding officer’s mistake of fact and law protected by Fourth Amendment); see also *Utah v. Strieff*, 579 U.S. 232, 242 (2016) (holding evidence admissible despite fruit of unlawful police behavior because of discovery of warrant); Johnson, *supra* note 81 (explaining despite improvements in accuracy, best technologies still misidentify “matches” 20% of time).

committed a crime, but rather simply because he is a Black man existing in a white community.¹⁶⁴ To identify the man, the police deploy FRT, which inaccurately identifies this Black man as a different Black man who has a warrant out for his arrest.¹⁶⁵ Armed with his newfound warrant, the officer conducts a search incident to arrest, uncovers a bag of marijuana on the Black man's person, and charges him with possession.¹⁶⁶ Utilizing the Court's jurisprudence, this officer's mistake is likely permissible due to the intervening circumstance of a different man's arrest warrant, a reasonable factual mistake of identity, and the eventual discovery of contraband.¹⁶⁷ Accordingly, even if future policymakers establish uniform, individualized suspicion standards or a warrant requirement for FRT deployment, the jurisprudential landscape that extends incredible forgiveness to officers ensures that those officers with racial motivations can and will continue to make decisions informed by their biases without legal consequences.¹⁶⁸ Meanwhile, Black people will continue to suffer the greatest burdens of FRT.¹⁶⁹

2. *A Complete Federal Ban on FRT Is the Only Available Protection Against FRT Use by Police*

Given the dangers that FRT technology still poses for people of color, even within the strictest regulatory frameworks, the only true solution is a complete

164. See *Terry v. Ohio*, 392 U.S. 1, 5 (1968) (discussing why officer drawn to defendants initially while patrolling). Although the opinion fails to mention that the defendants were Black men, the officer reasoned, "they just didn't look right to me." See *id.* (recounting officer's recollection of defendants); *supra* note 32 (highlighting *Terry* fails to mention defendant's race). Beyond the caselaw, an officer stopping a Black person with less than reasonable suspicion is not unusual given how frequently Black community people encounter police. See *supra* note 49 (highlighting Black drivers stopped more frequently by police); Crockford, *supra* note 105 (noting Black people's higher arrest rates for cannabis use).

165. See Johnson, *supra* note 81 (noting continuing racial inaccuracies in FRT); *Strieff*, 579 U.S. at 235-38 (outlining similar facts resulting in officer uncovering warrant for individual stopped without reasonable suspicion).

166. See *Strieff*, 579 U.S. at 236 (explaining officer uncovered illegal drugs after learning of arrest warrant). Unlike in *Strieff*, the warrant is for a different man, not the stopped man, all made possible because of FRT's inability to accurately identify people of color. See *id.* at 235 (noting *Strieff* defendant had warrant out for his arrest); *supra* note 73 (explaining demonstrated inaccuracy of FRT).

167. See Ferguson, *supra* note 62, at 1189 (outlining police permitted to arrest in instances of reasonable mistake of fact or law). The officer's mistake of fact regarding the stopped individuals' identity would likely be lawful; as the *Heien* Court noted, "to be reasonable is not to be perfect, and so the Fourth Amendment allows for some mistakes on the part of government officials, giving them 'fair leeway for enforcing the law in the communities' protection.'" See *Heien v. North Carolina*, 574 U.S. 54, 60-61 (quoting *Brinegar v. United States*, 338 U.S. 160, 176 (1949)); *Strieff*, 579 U.S. at 243 (holding discovery of warrant sufficient intervening circumstance granting evidence discovered admissible). But see Ferguson, *supra* note 62, at 1192-93 (suggesting Court's forgiveness of officer's mistake may not extend to programmatic mistakes).

168. See *Strieff*, 579 U.S. at 243 (holding evidence uncovered admissible despite lack of reasonable suspicion of officer to initiate stop); *Whren v. U.S.* 517 U.S. 806, 810-13 (1996) (discussing despite unavailability of traffic violations susceptibility to pretext, Fourth Amendment unconcerned with officer intent).

169. See Butler, *supra* note 6, at 1469 (arguing criminal justice system intentionally imposes disparate effects on Black lives); Johnson et al., *supra* note 12, at 4 (discussing study indicating FRT use increases disparity in Black to white arrests); Crockford, *supra* note 105 (asserting FRT use targets Black and Brown people therefore calling for complete ban).

ban on law enforcement’s use of FRT.¹⁷⁰ The rise of jurisdictions enacting their own statutory bans presents an encouraging start to slowing the exacerbation of the Fourth Amendment’s race problem under police-deployed FRT.¹⁷¹ Nevertheless, individual city bans provide only a piecemeal solution that are too susceptible to the political volatility of local legislatures to address this nationwide issue.¹⁷² The Facial Recognition and Biometric Technology Moratorium Act signals an encouraging start by proposing a ban on a federal level.¹⁷³ In particular, the legislation would withhold Byrne grant funds from states that fail to enact similar statutory provisions, which should adequately incentivize states to follow suit as Byrne Grants provide the greatest source of state law enforcement funding.¹⁷⁴ The proposed legislation, however, does not go far enough because its inclusion of “without explicit statutory grant” leaves open the possibility of a statutory grant of FRT use—a looming threat Black communities should not have to endure.¹⁷⁵ This session of Congress, legislators should reintroduce and revise the Facial Recognition and Biometric Technology Moratorium Act to preclude the possibility of a statutory grant permitting some use of FRT.¹⁷⁶ A

170. See Crockford, *supra* note 105 (calling for complete FRT ban due to disparate effects on communities of color); Bigos, *supra* note 109, at 103 (urging ban or moratorium on FRT); Johnson, *supra* note 81 (discussing Black men falsely arrested due to FRT); see also BAN FACIAL RECOGNITION, *supra* note 130 (highlighting localities with statutory bans in place).

171. See BAN FACIAL RECOGNITION, *supra* note 130 (providing map of jurisdictions with statutory bans). To date, twenty cities and the state of Vermont have passed complete prohibitions on police use of FRT. See *id.* The longevity of these total bans is not certain as cities like New Orleans, which originally passed total bans, have now passed bills allowing targeted police use of FRT if they first request permission. See Metz, *supra* note 16. Even California, a state which initially placed regulatory limits on FRT’s use, has not prevailed in making such limits permanent. See *id.* (highlighting California’s inability to reinstate FRT ban on police worn body cameras).

172. See Metz, *supra* note 16 (discussing New Orleans’s, Virginia’s, and California’s legislative retreat on FRT regulation). New Orleans’s city council’s choice to ban, and then subsequently loosen said ban, occurred over the span of merely two years in response to a rise in homicide rates. See *id.* Virginia reversed its statewide ban just one year after implementation. See *id.*

173. See Facial Recognition and Biometric Technology Moratorium Act of 2021, H.R. 3907, 117th Cong. (2021) (prohibiting federal agent uses of FRT absent explicit statutory grant). The legislation proposes an immediate prohibition on federal agencies’ use of FRT and keeps them from accessing state or local agencies’ FRT databases. See *id.* at § 3(a)(1)-(2).

174. See *id.* at § 4(a) (withholding Byrne Grant funds from states who fail to comply with instituting similar ban). Byrne Grants provide the largest source of federal funding for state and local police forces. See *Edward Byrne Memorial Justice Assistance Grant (JAG) Program*, *supra* note 17. In 2022, Byrne funding provided \$87,775,170 to local law enforcement agencies and \$191,553,099 to state law enforcement agencies. See *FY 2022 Edward Byrne Memorial Justice Assistance Grant Program—Local Solicitation*, *supra* note 17 (detailing local awards); *FY 2022 Edward Byrne Memorial Justice Assistance Grant Program—State Solicitation*, *supra* note 17 (detailing state awards).

175. See Facial Recognition and Biometric Technology Moratorium Act of 2021, H.R. 3907, 117th Cong. (2021) § 3(b)(1)-(5) (explaining requirements for statutory authorization of FRT). The proposed legislation authorizes statutory FRT specifications and implements federal law enforcement use policies and auditing requirements. See *id.* Also, it recommends that statutory authorization provides “rigorous protections for due process, privacy, free speech and association, and racial, gender, and religious equity” See *id.* at § 3(b)(1)(4); see also *supra* notes 168-171 (arguing equitable practice of FRT not feasible).

176. See Crockford, *supra* note 105 (calling for complete ban of FRT police use).

complete and final federal ban is the surest path for relief from FRT's role in exacerbating the Nation's race problem.¹⁷⁷

IV. CONCLUSION

Law enforcement deployment of FRT does not foster a utopian, post-racial policing method despite proponents' technological neutrality assertions. Rather, the technology aggravates inequitable policing through its racially inaccurate algorithms, databases comprised of only mugshots, and unfettered use. This guise of race-neutral policing, when the technology is anything but neutral, poses a serious danger to policymaker's motivations to address and combat an unjust legal system. Moreover, FRT's implementation in a policing system in which the Court has fashioned incredible standards of forgiveness for officer mistakes and allowance of racial officer motivations ensures that no such environment or standards exist that allow for equitable FRT use.

Protection for Black people from the dangers of FRT used in stops and investigations will not come from the Court because of the isolated nature of the occurrences that escape *Carpenter* and mosaic theory aggregation reasoning. Further, the use of FRT in stops and investigations with mugshot databases escapes much of the public critique, demonstrating a failure of society to acknowledge the structural racism that makes such use a danger to Black communities. To protect these communities from further infringement of their liberties and dignity from inequitable policing, Congress must pass a complete and final ban of FRT that properly incentivizes state and local governments to echo this action through their own legislative bans. Only through complete abolition of the technology will policymakers and society alike be able to address the systemic racism already pervasive in policing without FRT and begin to dismantle our uniquely unjust justice system.

177. See *id.* (explaining ban only relief for communities of color); Johnson et al., *supra* note 12, at 8 (detailing increased arrest disparity in localities utilizing FRT); *supra* note 81 and accompanying text (arguing perfected technology still susceptible to police misuse).