Dr. Panopticon, or, How I Learned to Stop Worrying and Love the Drone

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Government surveillance is now more pervasive and omnivorous than ever before. The National Security Administration’s telephone and Internet dragnet, revealed in the summer of 2013, offered a surprising look at the government’s monitoring of our electronic lives. But even if many quickly became accustomed to the idea that inside our homes, much of what we do electronically is open to scrutiny—and most of what we do at home is electronic—outside of our homes, we continued to assume that we could blend into the crowd, unnoticed and largely unobserved. The practical difficulties of following someone in public, coupled with the anonymity of large cities, formerly made public places the most secure from government surveillance. This fact was not lost on mob bosses who, aware that their phones might be tapped and their homes and vehicles bugged, would conduct business conversations outdoors to avoid surveillance. In this sense, public spaces may be privacy’s last frontier. But unmanned aerial vehicles, more commonly known as drones, possess surveillance...
capabilities that could one day make open spaces as monitored and searchable as our cell phone metadata.5

While many other surveillance techniques may lurk at the edges of our consciousness,6 these flying machines best capture the visceral fear of the all-seeing surveillance state.7 As one writer put it, the domestic use of drones for surveillance could “profoundly change the character of public life in America because only drone technology enables such omnipresent physical surveillance.”8 While drones can be used to track a particular individual, or group of individuals,9 the fear of drones seems to crystallize around the idea that drones could be used as a means of conducting continuous mass surveillance of particular locations, or even entire cities. Because drone technology keeps advancing, making drones increasingly tiny, inexpensive, and powerful, the fear is that our cities could become like Bentham’s Panopticon prison, where everyone could be watched, all of the time.10

unmanned aircrafts. See Timothy M. Ravich, The Integration of Unmanned Aerial Vehicles into the National Airspace, 85 N.D. L. Rev. 597, 598 (2009). Essentially, all of these terms refer to an aircraft device that can fly without an onboard human operator. Id.

5 For the purposes of this essay, I am focusing on non-weaponized drones used for recording information, not the kind that have been employed overseas for military strikes, or even potentially weaponized drones used domestically. See, e.g., Glenn Greenwald, Domestic Drones and Their Unique Dangers, THE GUARDIAN, Mar. 29, 2013, http://www.theguardian.com/commentisfree/2013/mar/29/domestic-drones-unique-dangers/print (arguing that weaponized drone use by police departments is “inevitable”). According to Greenwald, “the drone industry has already developed and is now aggressively marketing” drones equipped with non-lethal weapons such as Tasers or bean-bag guns. Id. Nevertheless, weaponized drones raise entirely different issues than those I am discussing here.

6 See, e.g., Bruce Schneier, It’s Time to Drop the “Reasonable Expectation of Privacy” Test, WIRED.COM (Mar. 26, 2009), http://www.wired.com/politics/security/commentary/securitymatters/2009/03/securitymatters_0326 (listing techniques such as “data mining, automatic face recognition, terahertz radar that can ‘see’ through walls, wholesale surveillance, brain scans, RFID [radio-frequency identification], [and] ‘life recorders’ that save everything”).

7 This is typically the point where authors feel contractually obligated to mention George Orwell’s NINETEEN EIGHTY-FOUR. Wishing to avoid cliché, I will refrain from even writing the words “Orwell,” “George,” or “Nineteen Eighty-Four.”

8 See Greenwald, supra note 5 (internal quotations omitted) (noting that that “multiple attributes of surveillance drones make them uniquely threatening,” including their inexpensiveness, their portability and technical capabilities).

9 This type of use, where the drone basically stands in for a police officer on surveillance, raises the question that the Supreme Court dodged in United States v. Jones. In Jones, the Court held that the installation and use of a GPS tracker on a suspect’s car constituted a search under the Fourth Amendment, but did not consider whether continuous electronic surveillance would constitute a search, regardless of whether a common law trespass was committed. See United States v. Jones, 132 S. Ct. 945, 954 (2012) (“It may be that achieving the same result through electronic means, without an accompanying trespass, is an unconstitutional invasion of privacy, but the present case does not require us to answer that question”).

10 Jeremy Bentham, Panopticon, or The Inspection House, in 4 JEREMY BENTHAM 39, 44 (John Bowring ed. 1843) (proposing circular prison where every prisoner would be visible to a centrally located guard, but would not be able to see if they were being watched, with the goal that “the persons to be inspected should always feel themselves as if under inspection”).
Most privacy scholars, buoyed by the concurrences in *United States v. Jones*, the Supreme Court’s 2012 case on continuous electronic surveillance, predict that the Court will eventually find a constitutional right to be free from warrantless drone surveillance or that regulation will be enacted by Congress. This may well be so. But the goal of this essay is different: it seeks to explore whether there is anything useful to be learned from the possibility of universal public surveillance. Not just useful in terms of solving crime or combating terrorism, but rather in reassessing the balance of power between the state and the people. The system we have now—which privileges the right to privacy inside the home over the right to be secure against coercive police-citizen encounters—places the burden of police intrusion disproportionately on the poor and on minorities. Most of the people who bear the brunt of analog police surveillance are well aware of the possibility that the government is watching them, because they live in the impoverished urban neighborhoods that are the most heavily patrolled. In addition, there are nearly five million people living under some form of criminal supervision. Being on probation or parole obliges people to report their whereabouts and their associations to the government, and can sometimes require them to waive their Fourth Amendment rights entirely. For the urban poor, we arguably already have a police surveillance state.

11 "I would ask whether people reasonably expect that their movements will be recorded and aggregated in a manner that enables the Government to ascertain, more or less at will, their political and religious beliefs, sexual habits, and so on." United States v. Jones, 132 S. Ct. 945, 956 (2012) (Sotomayor, J., concurring).

12 In his *Jones* concurrence, Justice Alito observed that, "[i]n circumstances involving dramatic technological change, the best solution to privacy concerns may be legislative." Id. at 964 (Alito, J., concurring).

13 See Nirej Sekhon, *Willing Suspects and Docile Defendants: The Contradictory Role of Consent in Criminal Procedure*, 46 HARV. C.R.-C.L. L. REV. 103 (2011). Sekhon notes that “[i]ndividuals routinely consent to searches that yield damning evidence of criminal wrongdoing,” and that “courts hold that ‘consent’ is valid . . . even when the State has used its coercive power to influence a suspect’s choice.” Id. at 104. Sekhon describes the consent given in these law enforcement encounters as “fictional consent.” Id. at 132.


15 Some states allow waivers of Fourth Amendment rights as a condition of probation. See, e.g., Allen v. State, 369 S.E.2d 909, 909 (Ga. 1988). The Georgia court upheld as valid the condition of a plea bargain that “defendant shall waive all Fourth Amendment rights and submit to random searches of his residence, automobile or any other building in which the defendant is located by law enforcement officers without notice and without probable cause.” This practice is sufficiently routine in Georgia that a sample waiver form is provided in JOHN J. GOGER, DANIEL’S GA. CRIMINAL TRIAL PRACTICE FORMS § 26:11 (6th ed. 2013).

While there are many good arguments that can be made in defense of privacy and against continuous mass surveillance, they cannot be fairly assessed when state power is implemented in such an unbalanced way. If we focus solely on the affront to privacy posed by drones, we are missing half the picture. To answer the question of "what kind of privacy are we entitled to expect," we need to think about how privacy is experienced across all of society. Only then can we achieve the goal the Framers had in mind—"a vibrant democracy that leaves room for individuals to enjoy personal and political independence." So what I am suggesting is a sort of thought experiment: Let us imagine that the government could use drones to monitor our every move out of doors, all the time. Would this type of around-the-clock, around-every-corner surveillance be better or worse than the system we have today?

Presumably, the answer would depend on whom you ask. Under the Fourth Amendment, we ("the people") all have the right to be secure against unreasonable searches and seizures. Since Katz v. United States, this has meant that the Amendment protects a certain conception of privacy. But how that protection is experienced will be very different depending on whether a person is a white law professor, an African American high school student, or a Latino truck driver. Fifteen years ago, William Stuntz asked whether current Fourth Amendment jurisprudence did not protect the wrong thing. Because the touchstone of Fourth Amendment law is privacy, and the interest in privacy is strongest in

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18 Id.
19 For the purposes of this essay, I am positing a neutral data collection system that records all activity, not one that focuses disproportionately on any particular group of people. What would need to be monitored with vigilance would be the use that is made of the captured images. See Russell D. Covey, Pervasive Surveillance and the Future of the Fourth Amendment, 80 MISS. L.J. 1289, 1302 (2011) (arguing that if pervasive surveillance becomes the norm, then the focus of constitutional criminal procedure "must necessarily shift from the regulation of the state's acquisition of information to the regulation of the state's use and dissemination of that information."). There is no sense in having an even-handed universal surveillance system if it is then going to be mined in a discriminatory fashion.
20 See U.S. CONST. amend. IV.
22 William J. Stuntz, The Distribution of Fourth Amendment Privacy, 67 GEO. WASH. L. REV. 1265, 1266 (1999). The Fourth Amendment, Stuntz observed, does not protect from all police misconduct. It does nothing to curb police brutality and harassment. It has, most significantly, left an enormous amount of discretion in the hands of individual police officers, which typically falls disproportionately on the poor and the young, particularly young Black and Latino men. Whether the yardstick is privacy or property, the Fourth Amendment has little to say about police harassment and violence. See id.
private spaces such as homes and offices, legal advantage tilts in favor of the rich.23 This has sharp distributional consequences, as Stuntz pointed out:24 "To the extent the law focuses on privacy rather than, say, the interest in avoiding police harassment or discrimination, it shifts something valuable—legal protection—from poorer suspects to wealthier ones."25 If drones present a means of implementing a type of universal surveillance, maybe they can provide a way, even if just an imagined one, of righting this balance.

This essay proceeds in three parts. The first part briefly explains what drones are and what they can do. It reviews current applications for drones in domestic airspace, and the growing popular backlash against them. The second part considers whether there are any constitutional constraints on the deployment of drones for domestic surveillance, and concludes that, under current doctrine, there are few limits on their use. The third part takes a closer look at the differential impact of analog police practices. It then asks whether universal surveillance could be a model for a more egalitarian system than the one we have now.

I. DRONES OVER OUR HOMES

For all their mystique, drones are little more than pilotless planes that can be controlled remotely. They can be equipped with a dizzying array of technology, and they can be made small enough to fit into the average-sized purse. Current domestic uses for drones range from "helping farmers figure out which crops need watering to tracking sea lions in remote rocky outcroppings to aiding search and rescue missions,"26 to dropping poetry at literary events.27 Nonetheless, despite their many uses, people are

23 As Stuntz put it, "Privacy is an interest whose importance grows with one's bank account, or one's square footage." Id. at 1289. This argument holds just as true if one takes the bedrock of the Fourth Amendment to be property. See, e.g., Orin Kerr, The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution, 102 Mich. L. Rev. 801, 816 (2004) (arguing that the Katz "'reasonable expectation of privacy' test . . . has not substantially changed the basic property-based contours of Fourth Amendment law.").

24 Stuntz, supra note 22, at 1266. "Privacy, in Fourth Amendment terms, is something that exists only in certain types of spaces," he writes. "Rich people have more access to those spaces than poor people; they therefore enjoy more legal protection." Id.

25 Id. at 1267.


27 In 2013, the Los Angeles-based poet David Shook was working on a Kickstarter campaign to fund the world's first Poetry Drone. See The Poetry Drone, KICKSTARTER, http://www.kickstarter.com/projects/shookshookshook/the-poetry-drone (last visited on July 15, 2013). ("The Poetry Drone re-appropriates Unmanned Aerial Vehicle technology to drop poem-bombs, featuring specially commissioned poems by leading US and world poets, in an effort bring the US military's covert drone operations into the spotlight"). The funds raised on Kickstarter will be used for
increasingly concerned about their application to the domestic surveillance context, resulting in an anticipatory backlash.

A. From Blimps to Bugs: The Technological Capabilities of Drones

Unmanned aerial vehicles can range in size from portable projectiles as small as a bird or an insect, to behemoths larger than commercial jets.28 One miniature drone, the Nano Hummingbird, was developed in February 2011 specifically for stealth surveillance.29 Painted in soft blues and greens, with a bright orange beak, this tiny drone is as cute as a child’s toy and weighs less than an AA battery.30 Similar to its namesake, the Hummingbird can hover, fly sideways, backwards, and forwards, and can rest on power lines with other birds, allowing the drone to collect information without arousing the target’s suspicions.31 “Employing biological mimicry at an extremely small scale,” announces its developer’s website, “this unconventional aircraft could one day provide new reconnaissance and surveillance capabilities in urban environments.”32

Drones also have a vast range of capabilities. Unmanned aircrafts can carry high-resolution microphones, facial recognition software, thermal imaging, and the capacity to intercept wireless communications.33 Some

“the purchase of the drone itself and the production (editorial and physical) of The Poetry Drone Anthology, featuring original poems commissioned to be dropped from the drone.” Id. Apparently, the campaign was successful. See THE POETRY DRONE, http://poetrydrone.com/ (last visited on October 20, 2014).

28 See ACLU, PROTECTING PRIVACY FROM AERIAL SURVEILLANCE: RECOMMENDATIONS FOR GOVERNMENT USE OF DRONE AIRCRAFT, 2–4 (2011) (detailing six different categories of drones: (1) large fixed-wing aircrafts; (2) small fixed-wing aircrafts; (3) backpack crafts; (4) hummingbirds; (5) blimps; (6) satellites).

29 W.J. Hennigan, It’s a Bird! It’s a Spy! It’s Both, L.A. TIMES, Feb. 17, 2011, http://articles.latimes.com/2011/feb/17/business/la-fi-hummingbird-drone-20110217. The company that developed the Hummingbird, AeroVironment, has several other models in production, including the foot-long Wasp, which can be operated manually or programmed for GPS based autonomous navigation. See UAS Advanced Development: Wasp, AEROVIRONMENT, http://www.avinc.com/uas/adc/wasp/. Though many drones are designed to be compact so that a single operator can carry and maneuver the aircraft, the government also uses significantly bigger drones for large-scale reconnaissance. For example, the Army has created a football-field-sized “spy blimp” that is able to float thousands of feet above ground while peering down on individuals below. See Sam Biddle, The Army’s Gigantic 300 Foot Drone Is Alive Over New Jersey, GIZMODO, Aug. 8, 2012, http://gizmodo.com/5932902/the-armys-gigantic-300-foot-drone-blimp-is-alive-over-new-jersey.

30 For photographs as well as demonstration videos, see Nano Hummingbird, AEROVIRONMENT, http://www.avinc.com/nano/.


32 Nano Hummingbird, supra note 30.

33 ACLU, supra note 28, at 5.
drones even contain high-power zoom lenses that are "powerful enough to identify a tennis shoe from 60,000 feet up." One avenue for universal surveillance might come with the use of high-altitude long-endurance (HALE) UAVs. These solar-powered UAVs can remain aloft for weeks; Boeing has contracted with the Defense Advanced Research Projects Agency to develop the SolarEagle, "which will be able to stay aloft in the stratosphere for five continuous years." Indeed, "because they fly at such high altitudes, HALE UAVs could potentially track every car trip in a city, or the times when lights in residences were turned on and off." While there do not seem to be any plans for installing such a device over an American city in the foreseeable future, the technology and practical ability to do so is probably less than a decade away.

B. The Anticipatory Anti-Drone Backlash

Under the provisions of the FAA Modernization and Reform Act, the Federal Aviation Administration (FAA) must produce a plan to integrate domestic drones into national airspace by 2015. In the meantime, the use of drones has been sporadically authorized. Border protection agents have used drones to patrol the nation’s borders, while police, firefighters, disaster response teams, and scientists have received government approval for use of drone surveillance to assist in crime prevention, traffic surveillance, weather monitoring, wild fire containment, and surveying. Even when used by police departments, the most common applications for
drones have not been for tactical missions so much as crime scene and accident reconstruction.41

But the fact that, for the most part, drones are not yet used for domestic surveillance has not dampened the growing backlash against them, particularly in view of the FAA’s prediction that 30,000 drones will be deployed by 2030.42 Because of drones’ surveillance capabilities, many have called for stricter regulations on the use of domestic drones.43 The ACLU has warned that “[t]he government needs to respect Americans’ privacy while using this invasive technology, and the laws on the books need to be brought up to date to ensure that America does not turn into a drone surveillance state.”44

Some communities have threatened to take matters into their own hands. One resident of Deer Trail, Colorado, has proposed an ordinance that will issue drone-hunting permits, allowing residents to shoot down drones flying over town, as well as proposing a $100 reward for identifiable pieces of drones shot down.45 Although the proposal’s proponents have described it as “a very symbolic ordinance,” given the fact that Deer Trail (population: 550) is unlikely to be a prime candidate for drone surveillance, the FAA wasted no time in responding that anyone caught destroying government property could be subject to federal criminal and civil

41 See Francesani, supra note 34. Some police departments, like that of Mesa County, Colorado, fly drones with cameras and GPS devices to capture photos of crime scene locations at different elevations. See id. There are exceptions, however: In 2012, the North Dakota police used a predator drone to help effectuate the arrest of Rodney Brossart, who had refused to allow police to come onto his land to retrieve six cows that had strayed there. See Jason Koebler, Court Upholds Domestic Drone Use in Arrest of American Citizen, U.S. NEWS, Aug. 2, 2012, http://www.usnews.com/news/articles/2012/08/02/court-upholds-domestic-drone-use-in-arrest-of-american-citizen. The Grand Forks SWAT team chief told reporters “that the drone was used to ensure Brossart and his family members, who were also charged, didn’t leave the farm and were unarmed during the arresting raid.” Id.


44 Gilens, supra note 43. The FAA has acknowledged that “the integration of UAS in domestic airspace raises privacy issues, which the FAA intends to address through engagement and collaboration with the public.” FEDERAL AVIATION ADMINISTRATION, UNMANNED AIRCRAFT SYSTEM TEST SITE PROGRAM, REGULATIONS.GOV, http://www.regulations.gov/#/documentDetail;D=FAA-2013-0061-0001 (last visited July 19, 2013).

penalties.⁴⁶ According to the Associated Press, the Deer Trail proposal is only "the latest ripple in a spreading backlash against drones. Dozens of laws aimed at curbing the use of the unmanned aircraft have been introduced in states and cities."⁴⁷ Several bills have been introduced in Congress⁴⁸ and in the states limiting or regulating the use of drones for domestic surveillance; currently 20 states, including Texas, Idaho, Virginia, Oregon, and Florida, have passed laws limiting the use of drones.⁴⁹

II. THE LIMITATIONS OF THE FOURTH AMENDMENT

It seems probable that the political backlash will outpace any constitutional constraints that might be imposed upon drones. And those constraints were speculative in any event. Under the law as it stands, there is no reasonable expectation of privacy in one's movements on a public street—anyone can be followed by the police, by surveillance cameras, or by a tiny hummingbird drone without the need for court authorization. The greatest likelihood is that legislation will step in to fill the void.

A. Spying in Public Places

In terms of constitutional regulation, the threshold question is whether monitoring a large group of people who happen to be in a particular area is properly conceptualized as a search, and therefore subject to Fourth Amendment regulation. So long as drones are deployed in a way so as not to detect any information happening inside private residences, several strands of the Supreme Court's Fourth Amendment jurisprudence would seem to classify such surveillance as "not a search."

To begin with, under the open fields doctrine, the Court has held that there is no expectation of privacy—and therefore no Fourth Amendment

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⁴⁶ See Lowy, supra note 26 ("A drone 'hit by gunfire could crash, causing damage to persons or property on the ground, or it could collide with other objects in the air,' the [FAA's] statement said. 'Shooting at an unmanned aircraft could result in criminal or civil liability, just as would firing at a manned airplane.'").

⁴⁷ Id.

⁴⁸ In the first six months of 2013 alone, there were three bills proposed specifically to limit the use of drones, including two titled Preserving Freedom from Unwarranted Surveillance Act of 2013. See Search Bills in Congress, GOVTRACKUS, http://www.govtrack.us/congress/bills/browse#text-%22unmanned+aerial+vehicle%22 (last visited July 20, 2013).

In addition, there is little limit on the kinds of surveillance the police can conduct on public roads and spaces. Under the Court’s knowing exposure doctrine, there can be no Fourth Amendment claim for activities “knowingly exposed to the public.” Accordingly, in the context of aerial surveillance, so long as it was feasible for a member of the public legally to fly over a suspect’s property, the Court has not found similar police activity to be a search. In *California v. Ciraolo*, police flew 1,000 feet over a suspect’s backyard and spotted marijuana. The Court held that the aerial surveillance did not constitute a search because “[i]n an age when private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet.” In *Florida v. Riley*, the police flew a helicopter 400 feet over Riley’s greenhouse, where they discovered marijuana. In terms of actual expectations, Riley probably never dreamed that any member of the public would really fly a helicopter over his property at 400 feet. But the Court rejected his claim, asserting that, however unlikely the actual occurrence, someone could legally have done so, therefore Riley’s expectations were not reasonable.

The Court has also placed few constraints on technologically enhanced street surveillance. In *United States v. Knotts*, federal agents tracked a suspect’s car via a beeper, which had been attached to a drum of chloroform the suspect had purchased from an informant. The Court held that the government activity was not a search, because “[a] person traveling in an automobile on public thoroughfares has no expectation of privacy in

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50 See *Oliver v. United States*, 466 U.S. 170, 178 (1984) (holding that “an individual may not legitimately demand privacy for activities conducted out of doors in fields, except in the area immediately surrounding the home.”).

51 The phrase “knowingly exposed to the public” comes from *Katz v. United States*, 389 U.S. 347, 351 (1967) (“What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.”).

52 476 U.S. 207 (1986).

53 Id. at 215.


55 Id. at 451-52.

56 The Court noted that “[a]ny member of the public could legally have been flying over Riley’s property in a helicopter at the altitude of 400 feet and could have observed Riley’s greenhouse. The police officer did no more.” Id. at 451. The Court struck a similar note in *California v. Greenwood*, reasoning that “the police cannot reasonably be expected to avert their eyes from evidence of criminal activity that could have been observed by any member of the public.” 486 U.S. 35, 41 (1988).

his movements from one place to another." This principle was reaffirmed, on slightly different facts, by United States v. Karo, which held that tracking a beeper while it was inside an individual’s house was unlawful, but that using the tracker to locate the beeper on public streets was acceptable.

Most recently, when the Supreme Court held in United States v. Jones that police had conducted a search when they attached a global positioning system (“GPS”) device to a suspect’s car and monitored the vehicle’s movements for a month, it left these prior rulings largely intact. Writing for the Court, Justice Scalia agreed that in Knotts the information obtained about the target’s itinerary “had been voluntarily conveyed to the public.” Rather than overruling or limiting Knotts and Karo—both situations in which the suspects were given cans of chemicals already fitted with beepers—Justice Scalia distinguished Jones’s situation on the basis that the government had trespassed on Jones’s personal property by attaching a GPS to his Jeep for the purpose of obtaining information.

Still, it is unlikely that the law will remain static in this area. Indeed, the concurrences of the remaining five justices in Jones appear to imply as much. While current law does not protect us out of doors, it seems that the Court may find a way to contain electronic surveillance in public places. And if it does not, the political process seems poised to do so.

B. Drone Regulation in the Future

In any event, it is not clear what drone regulation would look like. Broad-spectrum surveillance, in which one or several drones are used to monitor all activity in a particular area, does not have a fitting parallel in the analog world. One police officer, or even a hundred officers, posted in an area will not be able to approximate what a drone, hovering over a neighborhood and observing everything, could do. All the little things that

58 Id. at 281. Indeed, before the Supreme Court’s decision in United States v. Jones, 132 S. Ct. 945 (2012), three Circuit Courts of Appeals had relied on Knotts to hold that GPS monitoring, even over a prolonged period, was not a search. See United States v. Marquez, 605 F.3d 604, 609–10 (8th Cir. 2010); United States v. Pineda-Moreno, 591 F.3d 1212, 1216 (9th Cir. 2010), vacated No. 10-7515, 2012 WL 538278 (U.S. Feb. 21, 2012); United States v. Garcia, 474 F.3d 994, 997 (7th Cir. 2007).
60 See id. at 721.
62 The GPS was attached to the Jeep while it was parked in a public parking lot; the trespass was strictly limited to the interference with the car itself, and did not involve entry onto private property. See id. at 948.
bedevil in-person surveillance—distraction, blink rate, risk of exposure, fatigue, flawed memory, unexpected traffic obstacles—do not exist for the infinitely patient, multi-visual drone. The drone’s only weakness is limited flight capacity and battery rundown.63

As described above, Fourth Amendment doctrine is ill-equipped to handle such universal surveillance. The Fourth Amendment deals best with the particular, with articulable facts that can be sworn to by a police officer and detailed in an affidavit in support of a warrant. Universal surveillance, by its nature, is not particularized.64 Neither probable cause nor reasonable suspicion fit easily onto the kind of surveillance that vacuums up everyone indiscriminately.65 A different approach, therefore, may be to focus on how the information obtained is used, rather than on the fact of its collection.66 Requiring a warrant, or some showing of justifiable cause, to search the database might be a better way to regulate investigations, particularly if pervasive surveillance becomes commonplace.67 As one commentator argues, “[b]ias may still affect the manner in which data are organized and analysis prioritized, but it should at least be more evident than the personal choices of individual analysts. It will leave a trail.”68

III. THE LIMITATIONS OF PRIVACY

Even if legal limits can ultimately be established, simply reining in universal public surveillance in order to make it more palatable may represent a missed opportunity to reevaluate something entirely more important: What kind of privacy we—all of us—are entitled to expect. But

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63 Although these limitations are likely to be short-lived as the drone industry is working on improvements.

64 Much of Fourth Amendment regulation relies on obtaining a warrant; warrants in turn may only be issued “upon probable cause . . . and particularly describing the place to be searched, and the persons or things to be seized.” U.S. Const. amend. IV.

65 To a large extent, none of the information collected by global surveillance is particularly usable until someone goes back over it looking for something specific. Then, the reviewer might know it when she sees it. This is even vaguer than Justice Stewart’s pithy definition of obscenity: “I know it when I see it.” Jacobellis v. Ohio, 378 U.S. 184, 197 (1964) (Stewart, J., concurring).

66 See Covey, supra note 19, at 1303-05.


68 Chesterman, supra note 67, at 257.
one's relation to privacy and how one experiences public places are greatly shaped by race, class, and gender. A fundamental issue that must be addressed then is whether we conceive of privacy as the right to retain control over our personal information, or as the right to be free from coercive police encounters. As this Part argues, the former has been unfairly privileged over the latter.

A. What Privacy Overlooks

Privacy, the linchpin of Fourth Amendment protection, is a fundamentally middle-class concept. From its inception as a new legal concept protecting the "right to be let alone," allegedly inspired by Justice Warren’s thwarted desire to shield the high-society wedding of his daughter from paparazzi intrusion, to its current concern about chilling associational freedoms, privacy is an interest most prized by people of means. The privacy that seems most under threat from universal surveillance is informational privacy—the type that protects facts about a person’s life, her travels, her business and social connections, her beliefs and her political convictions, from being aggregated and catalogued. But the interests in associational freedoms and the right to pursue a private life are not the only values that might be protected under the rubric of "privacy." There are also "the rights of locomotion and personal integrity," in other words, the right to be free from unjustified state coercion. The right to be let alone is thus going to mean something quite different to a white law professor in a wealthy suburb, a black high school student in an impoverished urban neighborhood, or a Latino trucker on the highway. Only one of them is unlikely to attract police attention just by crossing paths with an officer. For the other two, the right to be let alone may simply mean the hope of being able to go about their business

70 See Harry Kalven, Jr., Privacy in Tort Law—Were Warren and Brandeis Wrong?, 31 LAW & CONTEMP. PROBS. 326, 329 n.22 (1966) (attributing the inspiration for the Warren and Brandeis article to "Warren's irritation over the way the press covered his daughter's wedding in 1890").
71 "Privacy, as Fourth Amendment law defines it, is something people tend to have a lot of only when they also have a lot of other things." Stuntz, supra note 22, at 1272.
72 See Maclin, Decline of Locomotion, supra note 2, at 1328. Maclin points to Michigan v. Chesternut, 486 U.S. 567 (1988), as the moment when the Court "not only affirmed that pedestrians have no expectation of privacy against police inquiries, it ruled that pedestrians have no right of privacy against a 'police presence' that includes being chased by a police cruiser." Id. at 1329.
undisturbed by the police.

"The point is not that poor people don't care about privacy," observed Professor Stuntz. "Rather, the point is that, much of the time, the police don't take privacy away from poor people, because those people have already lost it, and one cannot lose it twice." What a middle-class white person might justifiably consider to be her unfettered right to go where she pleases may be constrained by unacknowledged barriers if she were poor and a person of color. This is nothing new; as Tracey Maclin has observed, "police targeting of black people for excessive and disproportionate search and seizure is a practice older than the Republic itself." While the white colonists were understandably outraged by the British practices of warrantless, general searches, their outrage did not extend to the searches they allowed to be routinely performed on the houses of African Americans, whether slaves or free.

Some scholars argue that there is an unbroken link between past practices and the discriminatory use of discretion by modern-day police forces, which falls disproportionately on racial minorities, particularly African Americans. As a result, spaces that would otherwise appear to be public, "such as streets, parks, sidewalks, and shopping districts turn out not to be entirely public, but rather color-coded." In these spaces, where people are frequently stopped by authorities for what Bennett Capers calls "racial incongruity," the police "function as de facto border control,

73 Stuntz, supra note 22, at 1267.
74 See Nirej Sekhon, Redistributive Policing, 101 J. CRIM. L. & CRIMINOLOGY 1171, 1185 (2011) (observing that "minorities and the poor are more likely to be arrested and incarcerated than non-minorities and the middle class."). Sekhon points out that these disparities are not due to "law-breaking patterns or individual officers’ biases" so much as they are the result of departmental choices "that determine how arrests are distributed." Id. at 1185-86.
75 Maclin, Race and Fourth Amendment, supra note 16, at 333. Maclin notes that during colonial times, constables in Philadelphia were authorized to "take up" any black person seen "gadding abroad" without a pass from his or her master." Id. at 334 (quoting A. LEON HIGGINBOTHAM, JR., IN THE MATTER OF COLOR 276 (1978)). Slave patrols in Virginia and South Carolina routinely conducted warrantless searches of "taverns and homes suspected of serving blacks or housing stolen goods." Id. at 335.
76 See Maclin, Race and Fourth Amendment, supra note 16, at 336.
77 See, e.g., MICHELLE ALEXANDER, THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS 22-26, 40-57 (2010) (describing how a racial caste system predicated on slavery came to be replaced by a racial caste system predicated on mass incarceration); Loïc Wacquant, The New "Peculiar Institution": On the Prison as Surrogate Ghetto, 4 THEORETICAL CRIMINOLOGY 377, 378 (2000) (arguing that "the need to shore up an eroding caste cleavage" has been "the main impetus behind the stupendous expansion of America’s penal state").
78 I. Bennett Capers, Policing, Race, and Place, 44 HARV. C.R.-C.L. REV. 43, 69 (2009). Capers describes the "perceived racial borders that our police now patrol" between racialized spaces, where "law-abiding minorities entering predominantly white neighborhoods are frequently stopped and questioned as to the reason for their presence in the neighborhood." Id. at 47. He notes that white people entering predominantly black neighborhoods are also often questioned by police, but the police tend to think that the white people are either lost or there to buy drugs. See id.
deciding who is scrutinized, stopped, questioned, or frisked.”79 It isn’t that the black person strolling through the white neighborhood doesn’t care about privacy, it’s that his is not the sort of privacy that will prevent him from being stopped.80

The feeling of always being close to some invisible border, patrolled by the police is shared by Latinos, or anyone who “appears Mexican.”81 As one commentator has observed, “borders tend to follow working-class Latinos wherever they live and regardless of how long they have been in the United States.”82 Privacy is no more than a theoretical concept for people who live in “constant fear that la migra [the immigration police] is hovering nearby.”83 For migrants, minorities and the urban poor, universal visual surveillance would not necessarily take away their privacy; they have already lost it.

Drone surveillance might tend to erase these borders. If it were found to be cost-effective and productive, could such surveillance supplant profiling and other police practices that make members of specific communities feel singled out and humiliated? Some scholars think it might. “Rather than targeting a specific group for closer examination, it may be possible to gather information on the entire population in such depth that human intervention—with the subjectivity and potential for bias that this brings—is significantly reduced.”84 While the impersonal eye in the sky will not have the common touch of the friendly beat cop of Norman Rockwell paintings, it may be that a machine that neither blinks nor misjudges may be an improvement over the mistrust that often creeps in between police and minority communities.85 If everyone were equally surveilled, it might achieve what Randall Kennedy suggested some years ago: rather than burdening particular individuals with a “racial tax,” universal surveillance would increase taxes across the board.86 It is the same argument that can be

79 Id. at 68.
80 As Capers writes, encounters with the police are “part of being black in this country.” Id. at 60 (quoting an African American businessman who was stopped fifteen times in two years for strolling through an upscale, mostly white neighborhood).
81 United States v. Brignoni-Ponce, 422 U.S. 873, 886-87 (1975) (endorsing the use of “Mexican appearance” as a relevant factor to be considered in policing the border).
82 Cesar Cuauhtemoc Garcia Hernandez, La Migra in the Mirror: Enforcement and Racial Profiling on the Texas Border, 23 NOTRE DAME J.L. ETHICS & PUB. POL'Y 167, 188 (2009). “The simple fact of failing to fit the image of what it is to be an ‘American’ renders [the] countless individuals who find themselves in the path of immigration officials subject to interrogation at best and banishment at worst.” Id. at 196.
83 See id. at 188.
84 See CHESTERMAN, supra note 67, at 257.
85 See Andrew E. Taslitz, Fourth Amendment Federalism and the Silencing of the American Poor, 85 CHICAGO-KENT L. REV. 277, 287-88 (2010) (noting that “unfair and aggressive police tactics produce community distrust that hampers police access to the citizens who can help in solving crimes”).
made in favor of police checkpoints—everyone is a little bit inconvenienced so that a few don’t have to be singled out and bear the burden for everyone else.

In this sense, domestic drone surveillance’s greatest social and intellectual contribution might not only be that it might help revitalize a generalized impetus to protect privacy interests.\textsuperscript{87} It may also make us think more directly about the uses and abuses of government power, a reality with which some of us—though arguably few of those who write about these topics—are already intimately familiar.

\textit{B. What Universal Surveillance Might Bring}

Of course, universal drone surveillance might simply be overlaid upon current discriminatory practices. Even if the (mostly) white and middle class started to get a taste of being constantly scrutinized, there is no assurance that empathy and reform would necessarily follow. Those with political power would probably be more likely to complain of the encroachment on their own privacy than to use it as an opportunity to reconsider all the ways in which the Fourth Amendment, as interpreted, has failed others.

As a historical moment, we’ve been somewhere like this before: with the advent of wiretapping technology.\textsuperscript{88} At the time, the middle class was outraged at the idea that the government might be able to listen to their private telephone calls.\textsuperscript{89} The year after the passage of Title III of the Omnibus Crime Control Act of 1968, which allowed for and regulated wiretaps, one commentator asked, “can one fairly characterize the idea of law enforcement officers secretly and pervasively monitoring the homes, offices, and meeting places of the citizenry in search of proof of crime as anything less than deeply offensive to the values of a decent society?”\textsuperscript{90}

\textsuperscript{87} See M. Ryan Calo, \textit{The Drone as Privacy Catalyst}, 64 STAN. L. REV. ONLINE 29, 29 (2011) (arguing that drones “could be just the visceral jolt society needs to drag privacy law into the twenty-first century.”).

\textsuperscript{88} I am grateful to Donald Dripps for drawing my attention to this parallel.

\textsuperscript{89} See, e.g., Sally Fly, \textit{The Orwell Law: New Taps on Freedom}, THE NATION 697, 699 (June 2, 1969) (arguing that Title III of the Omnibus Crime Control Act might be unconstitutional, and that “[w]ithout privacy of communication, people are reluctant to exercise their rights of speech, press, and worship.”). See also Herman Schwartz, \textit{The Legitimation of Electronic Eavesdropping: The Politics of “Law and Order”}, 67 MICH. L. REV. 455, 456 (1969) (calling Title III a statute “of dubious constitutionality, which authorizes frequent and prolonged eavesdropping by federal and state investigators under ‘controls’ which range from the ineffective to the nonexistent.”).

much the same way, at the oral argument in *United States v. Jones*, the Justices were appalled by the thought that the police could potentially attach GPS trackers to the Justices' own cars.91

The outrage against Title III did not translate into reform of many police practices that violated the privacy of the politically and economically disadvantaged. But Title III was passed before the ramifications of *Terry v. Ohio*, which approved stop and frisk practices,92 were fully felt. It was before the Court decided *Michigan v. Chesternut*, which held that people on the street have no expectation of privacy against police inquiries, even if those inquiries include chasing someone down the street in a police cruiser,93 and *Whren v. United States*, which held that if the police have probable cause for a traffic stop, that stop is lawful even if motivated by other, possibly discriminatory reasons,94 and *Illinois v. Wardlow*, which held that flight from the police in a "high crime area" is enough to justify a stop,95 and all the other cases that allowed "race-dependent decision making to become a normal part of police practice."96

It could be that we are more aware of the differential impact of police practices today than we were in 1968. The short-lived district court case holding that New York City's stop and frisk practices violated the Fourth Amendment may reflect this.97 "No one should live in fear of being stopped whenever he leaves his home to go about the activities of daily life," wrote Judge Scheindlin. "Those who are routinely subjected to stops are overwhelmingly people of color, and they are justifiably troubled to be singled out when many of them have done nothing to attract the unwanted attention."98 We obviously need a new way of policing the streets, investigating crime, and keeping the public safe. If we turned to the universal surveillance that drones could technically provide, could the very omniscience of such a system make the entire enterprise more egalitarian?

92 392 U.S. 1, 30-31 (1968).
96 KENNEDY, supra note 86, at 160.
97 Floyd v. City of New York, 959 F. Supp. 2d 540 (S.D.N.Y. 2013), injunctive relief stayed and judge disqualified by Ligon v. City of New York, 736 F.3d 118 (2d Cir. 2014). In reaching the conclusion that New York's stop and frisk program violated the Constitution, the court quoted an often-overlooked footnote in *Terry v. Ohio* that observed, "the degree of community resentment aroused by particular practices is clearly relevant to an assessment of the quality of the intrusion upon reasonable expectations of personal security." Floyd, 959 F. Supp. 2d at 556-57 (quoting Terry v. Ohio, 392 U.S. 1, 14 n.11 (1968)).
98 Id. at 557.
There is something else too. Unlike wiretapping, which focuses only on specific suspects, drones and their capacity for universal surveillance evoke what one commentator called "the idolatrous dream of omnipерception embodied in the panopticon." In simpler terms, drones contain the promise that somehow, with the right tools, we could achieve perfect knowledge. If there were a record of everything that ever happened, we could know the truth. We could know what really happened between Trayvon Martin and George Zimmerman on that night in February 2012. We would be able to solve all the unsolved shootings and disappearances and faulty eyewitness identifications. So much of what happens out in the world is a mystery. People are abducted, raped, shot. Other people are accused of these misdeeds, sometimes convicted and executed for them, sometimes wrongfully. We never really know. If there is a seductive quality to the seamless surveillance of the future, it is that we wouldn’t make these mistakes again.

Conclusion

I am not seriously proposing that we should all stop worrying and love the drone. But maybe this kind of faceless, technological surveillance could be implemented in a way that might be less error-prone, less arbitrary and discriminatory than what we have now. The friendly neighborhood hummingbird-drone, cute though it may be, is never going to have the human connection with the community that the old-time beat cop did, and the real-life ramifications of total government awareness could be quite harmful. But, if nothing else, drones allow us to imagine a more egalitarian system of government information gathering, one that does not fall so disproportionately and so hard on the millions who never really had any privacy in the first place.