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Much Ado about Mosaics: How Original Principles Apply to Evolving Technology in United States v. Jones

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MUCH ADO ABOUT MOSAICS: HOW ORIGINAL PRINCIPLES APPLY TO EVOLVING TECHNOLOGY IN *UNITED STATES V. JONES*

Priscilla J. Smith*

This Article argues that supporters and detractors of the concurring opinions in United States v. Jones *have overemphasized the role of the "mosaic" or "aggregation" theory in the concurrences. This has led to a misreading of those opinions, an overly narrow view of the Justices' privacy concerns, and an obscuring of two limiting principles that are vital to an analysis of the concurrences. This Article provides a path forward by revealing the analysis of reasonable expectation of privacy concerns that is common to both concurrences. The endpoint is a rule both more limited and broader than a simple application of a "mosaic theory." It is more limited in the sense that the rule applies only to surveillance using technology that operates outside of individual human control and is thus susceptible to overuse and abuse. It is broader in the sense that it finds surveillance intrusive, not just where the technology will collect a mosaic of information that reveals more than each single tile of information itself, but where the technology will chill expression of constitutionally protected behavior—behavior that can take place "in public" with other people, but is shared with a limited group.*

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I. INTRODUCTION

Privacy scholars breathed a sigh of relief when the Court held 9-0 in *United States v. Jones*[1] that the use of Global Positioning System ("GPS") surveillance to track the movements of a suspect's car for a month was a search within the meaning of the Fourth Amendment.[2] However, the initial high that greeted the Court's unanimous ruling has been tempered a bit by the requisite scholarly squabbling.[3] Scholars and advocates disagree most about the meaning and long-term viability of the reasoning of *Jones*'s two concurring opinions, one written by Justice Alito, joined by Justices Breyer, Ginsburg, and Kagan (the "Alito *four*"),[4] and the other by Justice Sotomayor,[5] and their implications for the use of other forms of surveillance. Across the two concurrences, five Justices agreed that "long[] term GPS monitoring in investigations of most offenses impinges on expectations of privacy."[6]

The most remarkable thing about *Jones* to those interested in the evolution of privacy protections in the substantive due process cases is the difficulty the Justices had articulating exactly what is wrong with law enforcement use—without a warrant—of

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[1] 132 S. Ct. 945 (2012).

[2] *Id.* at 949; *id.* at 954 (Sotomayor, J., concurring); *id.* at 964 (Alito, J., concurring). As the Supreme Court has made clear "over and again," "searches conducted outside the judicial process, without prior approval by judge or magistrate, are per se unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions." Katz v. United States, 389 U.S. 347, 357 (1967); *see, e.g.*, Kentucky v. King, 131 S. Ct. 1849, 1856 (2011); City of Ontario, Cal. v. Quon, 130 S. Ct. 2619, 2630 (2010) (quoting *Katz*, 389 U.S. at 357); Arizona v. Gant, 556 U.S. 332, 338 (2009) (quoting *Katz*, 389 U.S. at 357); Schneckloth v. Bustamonte, 93 S. Ct. 2041, 2043–44 (1973) (quoting *Katz*, 389 U.S. at 357).

[3] *See, e.g.*, Orin S. Kerr, *The Mosaic Theory of the Fourth Amendment*, 111 MICH. L. REV. 311, 314, 315–20 (2012); David C. Gray and Danielle Keats Citron, *A Technology-Centered Approach to Quantitative Privacy* (Aug. 14, 2012) (unpublished manuscript), *available at* http://ssrn.com/abstract=2129439.

[4] *Jones*, 132 S. Ct. at 957 (Alito, J., concurring).

[5] *Id.* at 954 (Sotomayor, J., concurring).

[6] *Id.* at 964 (Alito, J., concurring); *id.* at 955 (Sotomayor, J., concurring) (joining the majority opinion but also agreeing with Justice Alito's analysis "at the very least[]").

technology that allows around-the-clock machine surveillance of anyone for any reason, and specifically why such surveillance implicates privacy interests. As Walter Dellinger aptly stated in his address at this Symposium, the Justices seem to be saying, "This can't be; doctrine to follow."[7] In the majority opinion, Justices Scalia, Kennedy, and Thomas, and Chief Justice Roberts (the "Scalia *four*") entirely avoid the "reasonable expectation of privacy"[8] question presented by the case.[9] Instead, joined by Justice Sotomayor in her separate concurrence,[10] they breathed life into the physical trespass test,[11] and held that a search occurred when agents crawled under the defendant's car and attached the GPS device, committing trespass to property to collect evidence for law enforcement purposes.[12]

The five concurring Justices, on the other hand, (Justice Sotomayor and the Alito *four*), reached the question originally presented in the case: "Whether the warrantless use of a GPS tracking device on respondent's vehicle to monitor its movements on public streets violated the Fourth Amendment."[13] The Alito

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[7] Walter Dellinger, Keynote Address at the *North Carolina Journal of Law & Technology* Symposium: *U.S. v. Jones*: Defining a Search in the 21st Century (Jan. 25, 2013), *available at* http://ncjolt.org/multimedia/symposium-videos/ (discussing his experience as co-counsel for Antoine Jones).

[8] *Jones*, 132 S. Ct. at 950 (noting that after *Katz v. United States*, 389 U.S. 347, 357 (1967), to determine whether a "search" had occurred, the Court's cases "applied the privacy analysis of Justice Harlan's concurrence in [*Katz*], which said that a violation occurs when government officers violate a person's 'reasonable expectation of privacy' ").

[9] *See id.* at 945.

[10] *Id.* at 955. In her concurrence, Justice Sotomayor joins Justice Scalia's opinion agreeing both that "[w]hen the Government physically invades personal property to gather information, a search occurs," and that "[t]he reaffirmation of that principle suffices to decide this case," giving Justice Scalia (joined by Kennedy, Thomas and Roberts) his fifth vote and the win. *Id.*

[11] For a brief discussion of the physical trespass theory, see discussion *infra* Part II.A.

[12] *See Jones*, 132 S. Ct. at 949.

[13] Brief for the United States, *Jones*, 132 S. Ct. 945 (No. 10-1259), 2011 WL 3561881, at *I.

four criticize the majority for dodging the issue in the case,[14] failing to set out a rule that would regulate police use of electronic surveillance,[15] and for adopting a test that leads to results that are incongruous[16] and would vary from state to state.[17] They argue that longer term tracking by GPS intrudes on a reasonable expectation of privacy, thus rejecting the Government's simplistic view that anything taking place in "public" is not "private."[18] Unfortunately, the concurrences are less than clear in their explanations of *why* this is so.

The concurrences, though hardly models of clarity, do reveal an understanding of what is really at stake when law enforcement engages in permeating machine surveillance, and endorse a rule to guide evaluations of surveillance techniques in the future. Importantly, though, to uncover the rule one must resist an overemphasis on the so-called "mosaic" or aggregation theory[19] to determine when a reasonable expectation of privacy has been violated.[20] Under a ruling that relied *solely* on the mosaic theory,

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[14] *Jones*, 132 S. Ct. at 961 (Alito, J., concurring) ("[T]he Court's reasoning largely disregards what is really important (the *use* of a GPS for the purpose of long-term tracking) . . . .").

[15] *Id.* at 962.

[16] *Id.* ("The Court proceeds on the assumption that respondent 'had at least the property rights of a bailee,' but a bailee may sue for a trespass to chattel only if the injury occurs during the term of the bailment." (internal citations omitted)).

[17] *Id.* at 961–62 (Alito, J., concurring) (noting that results under the trespass theory would be different depending on whether the events at issue in this case occurred in a community property state or state that has adopted the Uniform Marital Property Act, or in a non-community property state because those rules would impact ownership of the car and thus the ability to sue for trespass).

[18] *Id.* at 964 (arguing that "use of longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy," thereby rejecting the view advocated by the Government in its Brief for the United States, *Jones*, 132 S. Ct. 945 (No. 10-1259), 2011 WL 3561881, at *12.

[19] For important work developing the mosaic or aggregation theory, see Renée McDonald Hutchins, *Tied Up in Knotts? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 432 (2007); Gray and Citron, *supra* note 3. For an example of an overemphasis on the mosaic theory by a *Jones* critic, see also the discussion *infra* Part V.

[20] This mosaic view was relied on heavily, though not exclusively, in the lower court's opinion in this case. *See* United States v. Maynard, 615 F.3d 544,

surveillance would invade a reasonable expectation of privacy whenever it collected individual pieces of information about a person's location by following them in public, where the aggregation of these "tiles" of information could be used to construct a detailed picture of a person's life.[21] This is *not* the view of the concurrences.[22] Supporters and detractors of the mosaic approach have overemphasized the centrality of the theory to the rationales behind *Jones*'s concurrences with two results. First, this overemphasis on mosaics results in an overly narrow view of the Justices' privacy concerns. Second, this misreading has, in turn, obscured two limiting principles that are vital to the concurring Justices' analysis.[23] Aggregation, on its own, need not invade one's privacy, while monitoring that results in discovery of even one discrete act that takes place in "public" could constitute a significant invasion.

Let's be clear at the outset. This Article is not intended to denigrate the mosaic theory, but only to argue that it is incomplete. There are holes in it, if you will. An overreliance on it by the lower court in the case, or perhaps just the popularization of the enticing "mosaic" label,[24] might even have contributed to the

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562 (D.C. Cir. 2010) (internal citation omitted), *aff'd in part sub nom. Jones*, 132 S. Ct. 945. In *Maynard*, the court held that prolonged GPS surveillance by law enforcement violated a reasonable expectation of privacy:

> Prolonged surveillance reveals types of information not revealed by short-term surveillance, such as what a person does repeatedly, what he does not do, and what he does ensemble. These types of information can each reveal more about a person than does any individual trip viewed in isolation. . . . A reasonable person does not expect anyone to monitor and retain a record of every time he drives his car, including his origin, route, destination, and each place he stops and how long he stays there; rather, he expects each of those movements to remain "disconnected and anonymous."

Maynard, 615 F.3d at 562–63 (internal citation omitted).

[21] *See supra* note 19; *see also* discussion *infra* Part V.

[22] *See Jones*, 132 S. Ct. at 923 (Sotomayor, J., concurring); *id.* at 927 (Alito, J., concurring); *infra* Parts III and IV.

[23] *See infra* Part V.

[24] *See, e.g.*, *D.C. Circuit Introduces "Mosaic Theory" of Fourth Amendment, Holds GPS Monitoring a Fourth Amendment Search*, VOLOKH CONSPIRACY (Aug. 6, 2010, 2:46 PM), http://volokh.com/2010/08/06/d-c-circuit-introduces-

concurrences' somewhat muddled, ultimately unsatisfying, expression of privacy interests at stake in the case. What the court is trying to capture is a concern with the ease with which private facts historically obscured by the sheer cost of gathering them can now be easily obtained by new surveillance technologies.[25] This is not a discomfort with mosaics *per se*, but with the sudden erosion of a privacy once taken for granted because it was expensive to invade.[26]

The goal here is to provide a path forward by revealing the analysis of reasonable expectation of privacy concerns that is common to both concurrences.[27] The struggle in evidence in the concurrences, and the Justices' sometimes incomplete attempts to resolve conflicting views, can lead us to a better solution. The rule that emerges from this exercise is faithful to the Fourth Amendment's text, its original guiding principles, and to long-standing precedent. At the same time, it is responsive to the Justices' and the public's concern about radically evolving digital technology and the growing powers it bestows on law

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mosaic-theory-of-fourth-amendment-holds-gps-monitoring-a-fourth-amendment-search.

[25] *See infra* Part IV.

[26] *See Jones*, 132 S. Ct. at 963 (Alito, J., concurring) ("In the pre-computer age, the greatest protections of privacy were neither constitutional nor statutory, but practical."); *id.* at 956 (Sotomayor, J., concurring) ("The net result is that GPS monitoring—by making available at a relatively low cost such a substantial quantum of intimate information about any person whom the Government, in its unfettered discretion, chooses to track—may 'alter the relationship between citizen and government in a way that is inimical to democratic society.' " (citing *United States v Cuevas-Perez*, 640 F.3d 272, 285 (7th Cir. 2011) (Flaum, J., concurring))).

[27] Though of course membership of the Court will change and opinions evolve, making explicit what is implicit in the various opinions in a case is a useful exercise engaged in by the Justices themselves to guide us moving forward. *See, e.g.*, Minnesota v. Carter, 525 U.S. 83, 109 n.2 (1998) (Ginsburg, J. dissenting) ("While I agree with the Minnesota Supreme Court that, under the rule settled since *Katz*, the reasonableness of the expectation of privacy controls, not the visitor's status as social guest, invitee, licensee, or business partner, I think it noteworthy that five Members of the Court would place under the Fourth Amendment's shield, at least, 'almost all social guests.' " (internal citations omitted)).

enforcement.

The endpoint is a rule both more limited and broader than a simple application of a "mosaic theory." It is more limited in the sense that the rule applies only to surveillance using technology that operates outside of individual human control and is thus susceptible to overuse and abuse.[28] It is broader in the sense that it finds surveillance intrusive not just where the technology will collect a mosaic of information that reveals more than each single tile of information itself, but where the technology will chill expression of constitutionally protected behavior—behavior that can take place "in public" with other people, but is shared with a limited group.[29]

In Part II, this Article reviews the majority opinion and the concurrences for those less familiar with the case. In Part III, the Article examines the privacy concerns of the five concurring Justices, highlighting their limited reliance on the mosaic theory and the breadth of their privacy concerns. It closes by identifying holes in the mosaic theory that reveal its limitations. In Part IV, the Article reviews evidence of the concurring Justices' central concerns reflected in the opinions and at oral argument and reveals the Justices' use of constitutional text and original principles to interpret the Fourth Amendment's application to modern surveillance technology, a method of constitutional interpretation identified as "living originalism" by Jack Balkin.[30] By focusing us on constitutional principles, living originalism reveals the guiding principles central to both concurrences. These principles, more than any narrow "rule" (like a rule against mosaics) must be at the heart of what is extracted from the concurrences to guide us in the future. Finally in Part V, the Article demonstrates that an overemphasis on the mosaic theory's role in the concurrences' reasonable expectation of privacy analysis has also led *Jones*'s critics off-track. Placing mosaics in their proper place and identifying the limiting principles as a required component of the

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[28] *See generally infra* Part IV.

[29] *See generally infra* Part IV.

[30] *See* Jack Balkin, LIVING ORIGINALISM 3 (Harvard Univ. Press 2011).

concurrences' analyses upends the conventional criticisms of the *Jones* concurrences made in greatest detail by Orin Kerr in his article, *The Mosaic Theory of the Fourth Amendment*.[31]

II. THE OPINION AND THE CONCURRENCES

United States v. Jones concerned whether the actions of agents who installed a GPS tracking device on a suspect's Jeep and used the device for twenty-eight days to track the vehicle's movements constituted a search within the meaning of the Fourth Amendment.[32] The tracking device communicated with multiple satellites to track the Jeep's location within fifty to one hundred feet and then forwarded the location data wirelessly to a government computer without further human involvement.[33] The device sent more than two thousand pages of data over the four-week period.[34] Amicus briefs before the Court explained that GPS surveillance technology is rapidly becoming even more accurate than the device used to track the defendant.[35]

The defendant challenged the attachment and use of the tracking device without a proper warrant[36] as an unconstitutional search in violation of the Fourth Amendment. The Government countered that Supreme Court precedent precluded that argument,[37]

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[31] Orin Kerr, *The Mosaic Theory of the Fourth Amendment*, 111 MICH. LAW REV. 311 (2012).

[32] United States v. Jones, 132 S. Ct. 945, 946 (2012).

[33] *Id.*

[34] *Id.* at 948.

[35] *See* Brief of Amici Curiae Electronic Privacy Information Center (EPIC) and Legal Scholars and Technical Experts in Support of the Respondent, *Jones*, 132 S. Ct. 945 (No. 10-1259), 2011 WL 4564007. Current systems enable an average accuracy of one to three meters; systems designed to achieve ten centimeters horizontal and twenty centimeters vertical accuracy are in development. *See* Priscilla J. Smith et al., *When Machines Are Watching: How Warrantless Use of GPS Surveillance Technology Violates the Fourth Amendment Right Against Unreasonable Searches*, 121 YALE L.J. ON. 177, 189–90 (2011) (internal footnotes and citations omitted).

[36] The agents in this case actually obtained a warrant that authorized installation of the device in DC within ten days. *Jones*, 132 S. Ct. at 948. They then proceeded to install the device on the eleventh day, in Maryland. *Id.*

[37] *Id.* at 951 (discussing government contentions).

pointing especially to *United States v. Knotts*.[38] *Knotts* rejected a Fourth Amendment challenge to human surveillance conducted by agents in vehicles tracking suspects with the aid of "beepers" attached to their cars.[39] The Government relied heavily on a general statement in *Knotts* that "[a] person travelling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."[40]

A. *The Court's Opinion and Revival of the Physical Trespass Theory of Search*

The Court in *Jones* held that "the Government's installation of a GPS tracking device on a target's vehicle, and its use of that device to monitor the vehicle's movements, constitutes a 'search' " within the meaning of the Fourth Amendment.[41] In a valiant effort to apply his originalist methodology to a technology creating powers this author suspects the Founders would have considered either God-like or, more likely, Satanic, Justice Scalia equated the placement of a GPS device on a car to a constable who hides himself in a target's coach in order to track its movements.[42] He noted that both the contemporary agent placing the GPS device and this eighteenth century "tiny constable," as Alito sarcastically labels him in his concurrence objecting to Scalia's analysis,[43] "engage[] in physical intrusion of a constitutionally protected area in order to obtain information."[44] Because "[t]here is no doubt that the information gained by that trespassory activity would be the product of an unlawful search" within the meaning of the Fourth Amendment when it was adopted,[45] so too the placement of the GPS device is a search. Justice Scalia's opinion was joined without further comment by Chief Justice Roberts and Justices

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[38] 460 U.S. 276 (1983).
[39] *Id.* at 285.
[40] *Id.* at 281.
[41] *Jones*, 132 S. Ct. at 949, 951.
[42] *Id.* at 950 n.3.
[43] *Id.* at 958 n.3 (Alito, J., concurring).
[44] *Id.* at 951 (majority opinion) (internal citations omitted).
[45] *Id.* at 950 n.3.

Kennedy and Thomas.[46]

The Court's reliance on the physical trespass test for a search, the test used exclusively until the latter half of the twentieth century,[47] allowed the Court to evade the central question posed by the case—that is, whether law enforcement's use of GPS surveillance to track movements in public space is a search for Fourth Amendment purposes because it violates one's "reasonable expectation of privacy."[48] This reasonable expectation of privacy test was set out in Justice Harlan's concurrence in *Katz v. United States*[49] and has been applied by the Court ever since.[50]

Reliance on the physical trespass test also revived a doctrine many had left for dead. In *Katz*, the Court specifically rejected the view that a physical trespass was *necessary* to establish a search, holding that wiretapping of a public phone booth constituted a search because the police violated the privacy of the defendant, even where no trespass was involved.[51] Justice Scalia argued in *Jones*, however, that the Court did not throw out the baby with the bath water. The physical trespass test, according to the Court in

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[46] *See id.* at 947.

[47] *See id.* at 949–50 (citing Kyllo v. United States, 533 U.S. 27, 31 (2001)); Orin Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 816 (2004).

[48] *Jones*, 132 S. Ct. at 961 (Alito, J., concurring) ("[T]he Court's reasoning largely disregards what is really important (the *use* of a GPS for the purpose of long-term tracking) . . . .").

[49] 389 U.S. 347, 360–61 (1973) (Harlan, J., concurring); *see also Jones*, 132 S. Ct. at 950 (noting that after *Katz*, the Court's cases "applied the privacy analysis of Justice Harlan's concurrence in [*Katz*], which said that a violation occurs when government officers violate a person's 'reasonable expectation of privacy' ").

[50] *See, e.g.*, Kyllo v. United States, 533 U.S. 27 (2001) (holding that the use of thermal imaging technology violated reasonable expectation of privacy); *Katz*, 389 U.S. at 361.

[51] *See Katz*, 389 U.S. at 353 (holding "the underpinnings of *Olmstead* and *Goldman* have been so eroded by our subsequent decisions that the 'trespass' doctrine there enunciated can no longer be regarded as controlling," and reversing Olmstead v. United States, 277 U.S. 438, 464 (1928) (holding no search where officers tapped public phone wires because there was no physical trespass)).

Jones, is a constitutional minimum,[52] and "the *Katz* reasonable-expectation-of-privacy test has been *added to,* not *substituted for* [it]."[53]

Justice Scalia distinguished precedent holding that "actual trespass is neither necessary *nor sufficient*" to constitute a search.[54] He argued that this case does not involve a trespass by itself; it involves a trespass accompanied by the collection of evidence in a criminal investigation—a trespass done for law enforcement purposes.[55] This is a tempting argument. It is true that a trespass by law enforcement that was merely obnoxious, but not done to gather evidence—imagine a police officer putting a sticker for the policeman's ball on your car windshield—would not be a search because it was not done to collect information.[56] But this proves too little. The question is whether trespass to collect information should be enough to turn a trespass into a search or whether something additional should be required. That question is beyond the scope of this Article. It will have to suffice here to say that after *Jones*, a trespass done to collect information is enough to make the trespass a search.

Finally, Justice Scalia countered Justice Alito's suggestion that "it is almost impossible to think of late-18th-century situations that

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[52] *Jones*, 132 S. Ct. at 953 ("What we apply is an 18th-century guarantee against unreasonable searches, which we believe must provide *at a minimum* the degree of protection it afforded when it was adopted. . . . [U]nlike the concurrence, which would make *Katz* the *exclusive* test, we do not make trespass the exclusive test.").

[53] *Id.* at 952.

[54] *Id.* at 964 n.5 (quoting United States v. Karo, 468 U.S. 705, 713 (1984)).

[55] *See id.*

[56] *See id.* (noting that trespass alone would not constitute search, but trespass and use of the device to gather information together created search); *id.* at 958 (Alito, J., concurring) ("It is clear that the attachment of the GPS device was not itself a search; if the device had not functioned or if the officers had not used it, no information would have been obtained."); *id.* at 961 ("Attaching . . . an object [like the GPS tracking device] is generally regarded as so trivial that it does not provide a basis for recovery under modern tort law." (citing Prosser and Keeton on the Law of Torts § 14, at 87 (W. Page Keeton et al. eds., 5th ed. 1984) (noting that harmless or trivial contact with personal property not actionable))).

are analogous to what took place in this case,"[57] by adopting Justice Alito's sarcastic example of a tiny constable hidden in a very large coach.[58] He goes on then to dismiss this concern altogether, stating that "it is quite irrelevant whether there was an 18th-century analog. Whatever new methods of investigation may be devised, our task, *at a minimum,* is to decide whether the action in question would have constituted a 'search' within the original meaning of the Fourth Amendment."[59]

B. *The Alito Four and Sotomayor*

In Justice Alito's concurrence, the Alito *four* rejected the physical trespass theory, complaining that the Court had not explained how the attachment or use of the GPS device fits within the textual bar on "unreasonable searches and seizures."[60] Justice Alito wrote that the application of "18th-century tort law" to twenty-first century surveillance techniques "strain[ed] the language of the Fourth Amendment; . . . ha[d] little if any support in current Fourth Amendment case law; and . . . [was] highly artificial."[61] He analogized the Court's reasoning under the trespass-based rule in *Jones* to the Court's early decisions involving wiretapping and electronic eavesdropping, which depended on a technical trespass accompanied by a gathering of evidence to establish a search.[62] Justice Alito quoted from a 1942

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[57] *Id.* at 958 (Alito, J., concurring).

[58] *Id.* at 964 n.3 ("[Justice Alito] posits a situation that is not far afield—a constable's concealing himself in the target's coach in order to track its movements. . . . There is no doubt that the information gained by that trespassory activity would be the product of an unlawful search. . . .").

[59] *Id.* (emphasis in original).

[60] *Id.* at 958 (pointing out that the Court holds attachment is a search, but does not contend it is a seizure and arguing it could not be because there was no "meaningful interference with an individual's possessory interests in that property") (quoting United States v. Jacobsen, 466 U.S. 109, 113 (1984)).

[61] *Id.*

[62] *See id.* at 959–60 (comparing Silverman v. United States, 365 U.S. 505, 509 (1961) (electronic surveillance was a search because microphone made physical contact with a heating duct on the other side of a shared wall) with Olmstead v. United States, 277 U.S. 438 (1928) (no search occurred where phones were tapped by tapping lines in the streets near the house)).

dissent which criticized the physical trespass rule by noting that "the search of one's home or office no longer requires physical entry, for science has brought forth far more effective devices for the invasion of a person's privacy than the direct and obvious methods of oppression which were detested by our forebears and which inspired the Fourth Amendment."[63]

It was recognition of the inadequacy of the trespass rule, Justice Alito argued, that led the Court in *Katz* to adopt the reasonable expectation of privacy test, protecting "people, not places," as the Constitution's text required.[64] Justice Alito appeared concerned that reverting to the trespass rule to address technology that, like wiretapping, can be activated without physical trespass, could result in a ruling as flawed as *Olmstead*. He concurred in the judgment, but insisted that the Court must address the *Katz* test, and concluded that "prolonged" GPS surveillance by law enforcement is a search subject to the warrant requirement because it violates a reasonable expectation of privacy.[65]

This leaves Justice Sotomayor in the unfamiliar role of swing Justice. She joined the Scalia *four*, allowing the physical trespass rule to carry the day.[66] But Justice Sotomayor wrote separately to stress that "*Katz*'s reasonable-expectation-of-privacy test augmented, but did not displace or diminish, the common-law trespassory test that preceded it," a test she agreed is an "irreducible constitutional minimum . . . ."[67] She recognized that "[s]ituations involving merely the transmission of electronic

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[63] *Id.* at 959 (quoting Goldman v. United States, 316 U.S. 129, 139, (1942) (Murphy, J., dissenting)) (internal quotations omitted).

[64] *See* Katz v. United States, 389 U.S. 347, 351 (1967); U.S. CONST. amend. IV (stating that the people of the United States are to be "secure in their persons, houses, papers, and effects, against unreasonable searches and seizures").

[65] *See Jones*, 132 S. Ct. at 964 (Alito, J., concurring).

[66] *See id.* at 954 (Sotomayor, J., concurring) ("I join the Court's opinion because I agree that a search within the meaning of the Fourth Amendment occurs, at a minimum, '[w]here, as here, the Government obtains information by physically intruding on a constitutionally protected area.' " (internal citation omitted)).

[67] *Id.* at 955.

signals without trespass would *remain* subject to *Katz* analysis"[68] and will "affect the *Katz* test by shaping the evolution of societal privacy expectations."[69] She made clear that she agreed with Justice Alito that "at the very least, 'longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy.' "[70] She also indicated that she might go even further than Justice Alito: "In cases involving even short-term monitoring, some unique attributes of GPS surveillance relevant to the *Katz* analysis will require particular attention."[71]

III. TRESPASS, TILES, AND MOSAICS: PRIVACY AFTER *JONES*

At the time *Jones* was decided, the FBI was engaged in GPS surveillance without warrants of over three thousand people.[72] Because "searches conducted outside the judicial process, without prior approval by judge or magistrate, are *per se* unreasonable under the Fourth Amendment—subject only to a few specifically established and well-delineated exceptions,"[73] and because *Jones* held that placement of GPS devices constitutes a search, after *Jones*, it is clear that the government cannot place GPS devices on private vehicles for the purposes of surveillance without a warrant, unless such placement falls within one of the well-delineated

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[68] *Id.* (quoting *Jones*, 132 S. Ct. at 953) (internal quotations omitted).

[69] *Id.*

[70] *Id.* (quoting *Jones*, 132 S. Ct. at 964 (Alito, J., concurring)).

[71] *Id.*

[72] *See* Ariane de Vogue, *Supreme Court Ruling Prompts FBI to Turn Off 3,000 Tracking Devices*, ABC NEWS (Mar. 7, 2012, 10:40 AM), http://abcnews.go.com/blogs/politics/2012/03/supreme-court-ruling-prompts-fbi-to-turn-off-3000-tracking-devices/; Kevin Johnson, *FBI Cuts Back on GPS Surveillance After Supreme Court Ruling*, USA TODAY (Feb. 7, 2012, 1:08 AM), http://usatoday30.usatoday.com/news/washington/story/2012-02-03/fbi-gps-surveillance-supreme-court-ruling/52992842/1.

[73] See Katz v. United States, 389 U.S. 347, 357 (1967) (footnotes omitted), and other cases cited *supra* note 2; *infra* note 74.

exceptions to the warrant rule.[74] Accordingly, the FBI acted decisively to stop its GPS surveillance of over three thousand people initiated without warrants,[75] and the Department of Homeland Security issued new guidelines for GPS tracking, including instructions on what to do with surveillance initiated prior to the decision in *Jones*.[76] However, where a government agent does not physically place an object on a person's piece of property but digitally connects with someone's property—cell-phones, computers, GPS devices installed in cars at production or by the owner—*Jones*'s implications are murkier.

A. *Trespassing Through Space*

One possibility is that Scalia's physical trespass analysis applies to digital trespass. After all, if an agent were to digitally connect with your computer, GPS device, or mobile phone for investigatory purposes, she is appropriating your property for purposes of gathering evidence, just like the agents who placed the tracker on your car. If we can invent tiny constables who hide in your carriage, why not tiny constables who travel through wires? Instead of hiding in the carriage, the tiny constable is hiding in

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[74] *See Georgetown Law Journal Annual Review Criminal Procedure: Warrantless Searches and Seizures*, 34 GEO. L.J. ANN. REV. CRIM. PROC. 37, 37–38 (2005) ("[C]ertain kinds of searches and seizures are valid as exceptions to the probable cause and warrant requirements, including investigatory detentions, warrantless arrest, searches incident to a valid arrest, seizures of items in plain view, searches and seizures justified by exigent circumstances, consent searches, searches of vehicles, searches of containers, inventory searches, border searches, searches at sea, administrative searches, and searches in which the special needs of law enforcement make the probable cause and warrant requirements impracticable.").

[75] *See* de Vogue, *supra* note 72.

[76] For current federal law enforcement guidance, see FEDERAL LAW ENFORCEMENT TRAINING CENTER, U.S. DEP'T OF HOMELAND SEC., *U.S. V. JONES* (UNITED STATES SUPREME COURT DECISION REGARDING GPS TRACKING) CASE NOTE 3, *available at* http://www.fletc.gov/training/programs/legal-division/downloads-articles-and-faqs/research-by-subject/4th-amendment/Case NoteUSvJones.pdf/view (last visited Apr. 10, 2013) ("For current investigations/cases involving warrantless GPS tracking, . . . [s]top the tracking and get a warrant.").

digital form in your cell phone, your Internet browser, or your car's previously installed GPS device. This is not like *Katz* where the trespass was only on public wires. The trespass invades your own personal effects.

The Government will undoubtedly vigorously defend against this position and the courts will have to decide whether there is a significant difference between digital invasion of your personal property and "physical" trespass by human touch. Justice Sotomayor at least seems to view digital invasion as different from physical trespass and so as *not* implicating that theory of search.[77] A statement in the Court's opinion also raises a question about the receptivity of the Scalia *four* to application of the trespass theory to digital invasions. The Court contrasts the *Jones* situation involving physical placement of a device on a car by a human with "cases that do not involve physical contact, such as those that involve the transmission of electronic signals."[78] Rather than being subject to the trespass theory, the Court writes, these "[s]ituations involving merely the transmission of electronic signals without trespass would *remain* subject to *Katz* analysis."[79]

However, because the Court did not directly address whether a digital trespass would be considered a "physical[] occup[ation] [of] private property for the purpose of obtaining information,"[80] it is possible that the Court's view could evolve, especially with a stronger understanding of technology and the way digital surveillance invades your personal property, takes control of it, and makes it communicate with the third party interloper about your activities. After all, tiny constables in mailboxes or the pockets of the Pony Express are just as probable as tiny constables in horse-drawn carriages. The analogy might convince Justice Scalia that digital trespass—even wireless digital trespass—that invades your

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[77] *See* United States v. Jones, 132 S. Ct. 945, 955 (2012) (Sotomayor, J., concurring) ("In cases of electronic or other novel modes of surveillance that do not depend upon a physical invasion on property, the majority opinion's trespassory test may provide little guidance.").

[78] *Id.* at 953 (majority opinion).

[79] *Id.* (emphasis in original).

[80] *See id.* at 949.

computer, your email, your browser, or your hard drive is no less "physical," and no less invasive, than the human kind. But there is another way to skin this cat: Finding the commonality between the two concurrences can help us determine how the concurring five Justices would rule using a reasonable expectation of privacy test.

B. *Of Mosaics and Individual Tiles*

As noted above, the lower court's opinion in *Jones* relied heavily on the mosaic theory. As the D.C. Circuit noted:

> A reasonable person does not expect anyone to monitor and retain a record of every time he drives his car, including his origin, route, destination, and each place he stops and how long he stays there; rather, he expects each of those movements to remain "disconnected and anonymous."[81]

Similarly, Chief Judge Kozinski relied on an aggregation theory in his powerful opinion dissenting from the Ninth Circuit's denial of rehearing en banc in *United States v. Pineda-Moreno*,[82] a case that, like *Jones*, challenged GPS surveillance without a warrant and that was in front of the Supreme Court on a petition for certiorari at the same time as *Jones*.[83] He explained his belief that GPS surveillance violated a reasonable expectation of privacy:

> By tracking and recording the movements of millions of individuals the government can use computers to detect patterns and develop suspicions. It can also learn a great deal about us because where we go says much about who we are.... Were Jones, Aaronson and Rutherford at that protest outside the White House?[84]

Despite this emphasis on aggregation in both cases, as well as commentary in the blogosphere about "mosaics," both concurrences steered clear of explicitly adopting the mosaic or aggregation labels to explain the invasiveness of GPS surveillance. Most tellingly, they fail to cite either the core argument in the lower court's opinion in *Maynard* quoted above, or Chief Judge

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[81] United States v. Maynard, 615 F.3d 544, 563 (D.C. Cir. 2010) (quoting Nader v. Gen. Motors Corp., 255 N.E.2d 765 (N.Y. 1970) (Breitel, J., concurring)).

[82] 617 F.3d 1120 (9th Cir. 2010).

[83] *Id.* at 1121.

[84] *Id.* at 1125 (Kozinski, C.J., dissenting from denial of rehearing en banc).

Kozinski's dissent.[85] Still, although the opinions are sparse and their conceptions of privacy embryonic, the privacy concerns of the five concurring Justices emerge underneath and around their discomfort in their opinions. As will be shown below, they lean on the mosaic theory but evidence a broader concern about privacy.

Justice Sotomayor provided the most extensive analysis of the privacy interests at stake and the particular reasons GPS surveillance intrudes on those interests, coming closest to heeding Justice Scalia's call in *Kyllo v. United States*[86] to adopt a rule that would "take account of more sophisticated [surveillance] systems that are already in use or in development."[87] Justice Sotomayor focuses on the nature and capacities of the technology itself and identifies how these capacities of GPS change the nature of surveillance as we know it.[88] She uses the idea that an aggregation of data adds to the intrusiveness of this type of surveillance.[89] She notes that "[i]n cases involving even short-term monitoring, some unique attributes of GPS surveillance . . . require particular attention. GPS monitoring generates a precise, comprehensive record of a person's public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations."[90] She also writes, "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."[91]

But despite these nods to the mosaic, Justice Sotomayor's

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[85] *See Jones*, 132 S. Ct. at 957 (Alito, J., concurring); *id.* at 954 (Sotomayor, J., concurring).

[86] 533 U.S. 27 (2001).

[87] *Id.* at 36; *see also Jones*, 132 S. Ct. at 956 (Sotomayor, J., concurring) ("I would take these attributes of GPS monitoring into account when considering the existence of a reasonable societal expectation of privacy in the sum of one's public movements.").

[88] *See Jones*, 132 S. Ct. at 955–56 (Sotomayor, J., concurring). *See generally* Smith et al., *supra* note 35 (discussing unique powers of GPS surveillance).

[89] *Jones*, 132 S. Ct. at 955–56 (Sotomayor, J., concurring).

[90] *Id.* at 955.

[91] *Id.* at 956.

concerns are broader. She highlights the "indisputably private nature" of information that can be discovered on individual trips to a "psychiatrist, the plastic surgeon, the abortion clinic, the AIDS treatment center, the strip club, the criminal defense attorney, the by-the-hour motel, the union meeting [hall], the [houses of worship], the gay bar . . . ."[92] She also suggests a more fundamental change in the jurisprudence to "reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties."[93] Justice Sotomayor notes that the third party rule is "ill suited to the digital age, in which people reveal a great deal of information about themselves to third parties in the course of carrying out mundane tasks,"[94] questioning the notion at the heart of this rule that "secrecy [is] a prerequisite for privacy."[95]

Similarly, Justice Alito's concurrence seemed to harbor concerns running deeper than the mosaic problem. Although he echoed the main criticisms of the reasonable expectation of privacy

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[92] *Id.* at 955 (quoting People v. Weaver, 909 N.E.2d 1195, 1199 (N.Y. 2009)).

[93] *Id.* at 957.

[94] *Id.*

[95] *Id.* Here, Justice Sotomayor is reflecting the concerns of privacy scholars presented in an Amicus Brief submitted to the Court. Brief for Yale Law School Information Society Project Scholars and Other Experts in the Law of Privacy and Technology Supporting Respondent, *Jones,* 132 S. Ct. 945 (No. 10-1259), 2011 WL 4614429, at *34–35 (citing, for example, Helen Nissenbaum, *Privacy as Contextual Integrity*, 79 WASH. L. REV. 119, 139 (2004) ("[The] notion that when individuals venture out in public . . . 'anything goes,' is pure fiction. . . . [E]ven in the most public of places, it is not out of order for people to respond . . . 'none of your business,' to a stranger asking their names."); Daniel J. Solove, *Conceptualizing Privacy*, 90 CALIF. L. REV. 1087, 1152 (2002) ("Clinging to the notion of privacy as total secrecy would mean the practical extinction of privacy in today's world.").

test, citing the circularity problem in particular,[96] he then punted: "*The best that we can do in this case is* to apply existing Fourth Amendment doctrine,"[97] which he described as "ask[ing] whether the use of GPS tracking in a particular case involved a degree of *intrusion* that a reasonable person would not have anticipated."[98] He argued that "the use of longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy," because "society's expectation has been that law enforcement agents and others would not—and indeed, in the main, simply could not—secretly monitor and catalogue every single movement of an individual's car for a very long period."[99] By contrast, GPS "[d]evices like the one used in the present case . . . make long-term monitoring relatively easy and cheap."[100]

Despite ample support for the mosaic test in *Maynard*, Justice Alito, like Justice Sotomayor, does not cite to *Maynard*'s analysis. Nor does he specify whether the problem with monitoring and tracking of "every single movement" of your car[101] is that the government will have a mosaic of information about you or, in

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[96] *See Jones*, 132 S. Ct. at 962. For a discussion of the circularity problem, see Smith et al., *supra* note 35, at 194–95. In that paper, the authors reject an interpretation of "the 'expectation of privacy' criterion [that] creates the paradoxical situation in which law enforcement overreach is legitimized once it becomes routinized." *Id.* That cannot be the proper interpretation of the Fourth Amendment. If it were, at the time the Amendment was adopted, the general warrant, the very instrument of government abuse to which the Amendment was directed, would *not* have violated a reasonable expectation of privacy. It was, after all, being used indiscriminately and so the "reasonable" expectation would have been that it could be used against you.

[97] *Jones*, 132 S. Ct. at 964 (Alito, J., concurring) (emphasis added).

[98] *Id.* (emphasis added). By focusing on intrusiveness, he echoes concerns of other scholars whose work was before the Court, such as Susan Freiwald, Renee Hutchins, and Christopher Slobogin. *See* Brief for Yale Law School Information Society Project Scholars and Other Experts in the Law of Privacy and Technology, *supra* note 93, at 34–35 nn.105 & 109. *See generally* Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701 (2010) (describing our mistaken belief in the anonymization of data and its impact on privacy law).

[99] *Jones*, 132 S. Ct. at 964 (Alito, J., concurring).

[100] *Id.*

[101] *Id.*

addition, whether the prolonged tracking is intrusive because it increases the likelihood that you will be watched doing something private. Justice Alito is more concerned about the ease with which this type of surveillance can take place using GPS, than he is with the fact that it creates a more *detailed* picture of what you are doing.[102]

C. *The Case of the Mosaic and the Trip to the Proverbial Gay Bar*

Given the adoption by the lower court of the mosaic test for violation of a reasonable expectation of privacy and scholarly support for the test, one might wonder why the concurring Justices do not simply endorse it wholeheartedly. The reason is that reliance on the mosaic test alone to determine when a reasonable expectation of privacy has been violated would not fully describe the privacy invasions of an overly permeating surveillance.[103] To illustrate the holes in the mosaic, we will start with a timeless scenario more inclined to capture the fancy of the younger generation than our dated references to Orwell and a date long past. (After all, many current law students were not even born in 1984.)

Imagine that Chancellor Palpatine—the Star Wars character and virtuous Senator from Naboo who is really the evil Darth Sidious in disguise[104]—sets out to discredit the Jedi and their puny Senate supporters so that he can monopolize power. He orders a tracking device that relays information back to giant computers that produce reports about the Jedi's locations to be placed on all their space ships. He discovers Anakin's relationship with Senator Amidala, that Obi Wan buys and sells bulk cartons of "death sticks" despite being a spokesperson against them, and that Senator Amidala (despite her relationship with Anakin) also frequents a

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[102] *See id.*

[103] *See* United States v. Di Re, 332 U.S. 581, 595 (1948) (holding that the Fourth Amendment provides our primary protection against "a too permeating police surveillance" and abuse of police authority).

[104] *See* STAR WARS EPISODE I: THE PHANTOM MENACE (20th Century Fox 1999); *Palpatine*, WOOKIEEPEDIA: THE STAR WARS WIKI, http://starwars.wikia.com/wiki/Palpatine (last visited Apr. 1, 2013).

lesbian bar called Sisters with some friends from her planet Naboo. He also finds out that Mace Windu and Yoda take out their spaceships and speed through Coruscant's back alleys for fun. He uses this information to undermine his targets and turn them against each other. All the characters resist his blackmail, except for one: Anakin.

This all may seem far-fetched. After all, Jedi are trained in the ways of the force. But here on Planet Earth, the Supreme Court has acknowledged:

> History abundantly documents the tendency of Government—however benevolent and benign its motives—to view with suspicion those who most fervently dispute its policies. Fourth Amendment protections become the more necessary when the targets of official surveillance may be those suspected of unorthodoxy in their political beliefs.[105]

Given past and current United States government programs of surveillance,[106] it is not difficult to imagine an executive branch

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[105] United States v. U.S. Dist. Court, 407 U.S. 297, 314 (1972).

[106] *See* JEROME P. BJELOPERA, CONG. RESEARCH SERV., R 41780, THE FEDERAL BUREAU OF INVESTIGATION AND TERRORISM INVESTIGATIONS 24 (2011), *available at* http://www.fas.org/sgp/crs/terror/R41780.pdf; Alexander Charns, CLOAK AND GAVEL: FBI WIRETAPS, BUGS, INFORMERS, AND THE SUPREME COURT 17–18, 24–31, 52 (1992) (describing instances of FBI wiretapping throughout history); Peter P. Swire, *The System of Foreign Intelligence Surveillance Law*, 72 GEO. WASH. L. REV. 1306, 1309 (2004) (examining history of surveillance abuses before 1978); Ken Dilanian, *FBI Involved in Hundreds of Violations in National Security Investigations,* L.A. TIMES (Jan. 30, 2011), http://articles.latimes.com/2011/jan/30/nation/la-na-fbi-violations-20110130 (" 'The documents suggest,' the report says, 'that FBI intelligence investigations have compromised the civil liberties of American citizens far more frequently, and to a greater extent, than was previously assumed.' "); Anjali Dalal, *Administrative Constitutionalism and the Re-entrenchment of Surveillance Culture* 8 (Mar. 4, 2013) (unpublished manuscript), *available at* http://ssrn.com/abstract=2236502 (citing SENATE SELECT COMM. TO STUDY GOVERNMENTAL OPERATIONS WITH RESPECT TO INTELLIGENCE ACTIVITIES AND THE RIGHTS OF AMERICANS, INTELLIGENCE ACTIVITIES AND THE RIGHTS OF AMERICANS, FINAL REPORT OF THE SELECT COMMITTEE TO STUDY GOVERNMENTAL OPERATIONS WITH RESPECT TO INTELLIGENCE ACTIVITIES AND THE RIGHTS OF AMERICANS, UNITED STATES SENATE, BOOK II, S. REP. NO. 94-755, at 6–7 (1976), *available at* http://www.intelligence.senate.gov/pdfs94th/94755_II.pdf (describing FBI's

devoted to a "culture of life" targeting the litigating staff attorneys at the Center for Reproductive Rights, hypothetically discovering that fifty percent of them are gay, twenty-five percent are Muslim, and one of them has fathered three children by three different women. They use the information in various ways to undermine the Center's litigation and public education efforts. On the other side of the aisle, imagine the Obama Administration puts tracking devices on Paul Ryan and his staff members, including a number of them who are "pro-life," i.e., anti-abortion leaders in their communities. Hypothetically, the Administration discovers that Paul Ryan works out at a gay gym and his staff members visit an abortion clinic during hours when procedures are performed and no protests are underway. The Administration then uses this information to discredit them.

There are, in fact, documented contemporary instances of more widespread surveillance as well, mostly coming out of China.[107] Under these systems of surveillance, surveillance technology is used on large swaths of people and information gathered can be accessed whenever desired by government agents.[108] This type of surveillance is reminiscent of the general warrants the Fourth Amendment was designed to curtail.[109]

Counterintelligence Program which "developed over 500,000 domestic intelligence files on American and domestic groups including the NAACP, the Women's Liberation Movement, and the Conservative American Christian Action Council")); .

[107] *See, e.g.*, Nicole Perlroth, *Hackers in China Attacked The Times for Last 4 Months*, N.Y. TIMES (Jan. 30, 2013), http://www.nytimes.com/2013/01/31/technology/chinese-hackers-infiltrate-new-york-times-computers.html?pagewanted=all&_r=0 ("The mounting number of attacks that have been traced back to China suggest that hackers there are behind a far-reaching spying campaign aimed at an expanding set of targets including corporations, government agencies, activist groups and media organizations inside the United States."); William Gerrity, *The Ultimate Invasion of Privacy*, SLATE (Feb. 7, 2013, 1:29 PM), http://www.slate.com/articles/technology/future_tense/2013/02/new_york_times_security_breech_how_a_chinese_hacker_tried_to_blackmail_me.html (describing "[h]ow a Chinese hacker used my private nickname, personal emails, and sensitive documents to try to blackmail me").

[108] *Id.*

[109] *See, e.g.*, Payton v. New York, 445 U.S. 573, 583 & n.21 (1980); Camara

These scenarios show that the mosaic theory does some good work in explaining the invasiveness of super-surveillance. For example, it captures the creepiness of an all-seeing government, the idea that Big Brother can watch you all the time from satellites or track you through your computers and cell phones. It considers the implications of government appropriation of those handy cameras and FaceTime or Skype apps. It connects not only Amidala's relationship with Anakin but *also* her visits to the lesbian bar that she has not told Anakin about. Enabling the aggregation of the "tiles" adds to the intrusiveness of the surveillance. It might be worse than non-aggregation by making someone an even better target for blackmail or other coercion. The government could find out that you are gay, *and* purchase pornography, *and* are a Tea Party member. The collection of information, this picture of who you are, especially given the ways the government can keep and track and analyze this data for an unlimited time period, comparing and contrasting your behavior with those of others, gives the government a more complete sense of who you are than anyone would naturally get.[110] As the court below held: "What may seem trivial to the uninformed, may appear of great moment to one who has a broad view of the scene."[111]

But the mosaic does not tell the whole story. Aggregation of this enormous amount of data is not the only problem with surveillance by GPS. It may not even be the most important problem with it. The most common examples of the technology's intrusiveness involve the possibility that certain information will be obtained—information that is found on just one "tile" in the

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v. Mun. Court, 387 U.S. 523, 528 (1967) (Fourth Amendment designed to protect "against arbitrary invasions"); Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 741 (1999).

[110] *See generally* Renée McDonald Hutchins, *Tied Up in* Knotts*? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409 (2007) (discussing how increases in GPS technology allow law enforcement to observe suspects for a longer period of time, using less resources).

[111] United States v. Maynard, 615 F.3d 544, 562 (D.C. Cir. 2010) (internal citation omitted) (quoting CIA v. Sims, 471 U.S. 159, 178 (1985)), *aff'd in part sub nom.* United States v. Jones, 132 S. Ct. 945 (2012).

mosaic and that can be gathered from just one trip. Just learning of Senator Amidala's meetings with Anakin at their secret love nest, just knowing about her trip to the lesbian bar, just being aware of Paul Ryan's visit to the gay gym, or discovering the anti-choice leader who goes to an abortion clinic on a procedure day: Any one of these individual facts could be something someone is trying to keep secret, and its discovery is highly invasive. The Justices do not completely jump on the mosaic bandwagon because they share a broader concern that Government spying could lead to a world in which the government needs only to run a quick search through the database to find something—just one thing—you wish it had not seen.

IV. APPLYING ORIGINAL ANALOGUE TEXT AND PRINCIPLES TO AN EVOLVING DIGITAL WORLD

Simply describing what private information can be discovered through GPS surveillance did not resolve the concerns of the Justices though. They struggled because the nature of the technology here is so different from anything they have addressed before. To create a proper analogy, Scalia would need to imagine not just one tiny constable, but millions of sleeping tiny constables in every "coach" in the land, just waiting to be awakened by Sauron watching through Saruman in his Tower.[112] As their oral argument questions and opinions reveal, the five concurring Justices reached back to original principles to guide them through these strange woods.

A. *Originalism Is Born Again*

By applying original principles to a completely modern reality, the concurrences use a method of analysis that is faithful to constitutional text and to original principles of the Constitution. Jack Balkin recently identified this method of interpretation and

[112] Sauron is the primary antagonist and titular character of J.R.R. Tolkien's THE LORD OF THE RINGS, and Sarumon is the Wizard through whom he acts. *Sauron*, LORD OF THE RINGS WIKI, http://lotr.wikia.com/wiki/Sauron (last visited May 10, 2013); *Saruman*, LORD OF THE RINGS WIKI, http://lotr.wikia.com/wiki/Saruman (last visited May 10, 2013).

construction in his influential new book *Living Originalism*.[113] Examining the concurring Justices' approaches through the lens of living originalism helps to expose the limiting principles that will continue to guide the Court's jurisprudence in this rapidly changing area. It also helps us evaluate, and ultimately reject, claims that the reasoning in the *Jones* concurrences is untethered from the constitutional text and represents a "major departure from the traditional mode of Fourth Amendment analysis."[114]

This Article will not add to the considerable commentary on living originalism.[115] Some explanation is necessary, though, to demonstrate why living originalism is a useful framework to uncover the rule proposed by the otherwise elusive concurrences. One of living originalism's central achievements is what David Strauss calls its reclamation project,[116] because it seeks to wrest originalism from those who guard it jealously for themselves.[117] Balkin rejects the view that originalism, defined as the idea that "the requirements of the Constitution were fixed, at least in crucial

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[113] JACK BALKIN, LIVING ORIGINALISM 3 (Harvard Univ. Press 2011).

[114] Kerr, *The Mosaic Theory*, *supra* note 31, at 315–20. Kerr argues that the "mosaic theory poses a fundamental challenge to the sequential approach" to search analysis under the Fourth Amendment. *Id.* at 320. This sequential approach "takes a snapshot of each discrete step and assesses whether that discrete step at that discrete time constitutes a search." *Id.* at 314. He then argues that "much of the Supreme Court's case law on the reasonable expectation of privacy test can be understood as distinguishing between inside and outside surveillance." *Id.* at 316. "To know if a search has occurred, courts ask if the government's conduct has crossed the boundary from outside to inside surveillance." *Id.* at 317; *see* discussion *infra* Part V.

[115] *See generally Originalism and Living Constitutionalism: A Symposium on Jack Balkin's* Living Originalism *and David Strauss's* The Living Constitution, 92 B.U. L. REV. 1127 (2012); Jack M. Balkin, *Nine Perspectives on Living Originalism*, 2012 U. ILL. L. REV. 815 (2012) (responding to papers presented at conference on living originalism).

[116] David A. Strauss, *Can Originalism Be Saved?*, 92 B.U. L. REV. 1161, 1161 (2012) (arguing that Balkin's work is a "reclamation" project as much as a project of reconciliation).

[117] *Id.* at 1161–62 (describing the reclamation project as an "effort to show that progressive principles can be justified on originalist grounds," but arguing that the project succeeds only "by treating originalism not as a way of resolving constitutional issues but rather as a rhetorical resource").

respects, at the times that its respective provisions were adopted,"[118] and "living constitutionalism," the view that the Constitution is a living document that adapts to changing circumstance, are necessarily irreconcilable.[119]

First, he identifies, foregrounds, and encourages the originalist impulses already at work in "living constitutionalism" by mooring constitutional interpretation explicitly in both the text and underlying principles of the Constitution itself—its original meanings.[120] In this way, he defuses one of the major criticisms of living constitutionalism, that is, the claim that it is undemocratic because it relies on the whims of nine Justices, rather than the will of the people expressed through the Constitution itself.[121]

Second, Balkin also reveals that Justice Scalia's version of originalism is actually a disguised form of living originalism. Justice Scalia does not faithfully apply the view that "the way that the adopting generation would have expected the relevant constitutional principles to be articulated and applied should govern today."[122] Instead, as even he admits, Justice Scalia is a "faint-hearted originalist" who adopts these views when he can

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[118] *Id.* at 1161.

[119] BALKIN, *supra* note 113, at 7; Strauss, *supra* note 116, at 1161–63 (citing BALKIN, *supra* note 113, at 3–7). *But see* Katie Glueck, *Antonin Scalia: The Constitution is 'Dead'*, POLITICO (Jan. 29, 2013, 8:26 AM), http://www.politico.com/story/2013/01/scalia-the-constitution-is-dead-86853.html#ixzz2Kpzs9xzv.

[120] *See* Jack M. Balkin, *The Roots of the Living Constitution*, 92 B.U. L. REV. 1129, 1130 (2012); *cf.* DAVID STRAUSS, THE LIVING CONSTITUTION 2–3 (Oxford Univ. Press 2010) (arguing that our "constitutional system . . . has become a common law system, one in which precedent and past practices are, in their own way, as important as the written U.S. Constitution itself" and that this allows us to have a "constitution that is both living, adapting, and changing and, simultaneously, invincibly stable and impervious to human manipulation").

[121] *See* Antonin Scalia, *Originalism: The Lesser Evil*, 57 U. CIN. L. REV. 849, 852–55 (1989) (criticizing "nonoriginalists" and arguing that "[i]f the Constitution were . . . a novel invitation to apply current societal values, what reason would there be to believe that the invitation was addressed to the courts rather than to the legislature?").

[122] Strauss, *supra* note 116, at 1163 (quoting BALKIN, *supra* note 113, at 7) (internal quotation marks omitted).

stomach them.[123] When changing public norms or changing conditions of technology make original applications too horrific or insufficient,[124] he is happy to reject those applications.[125] Sometimes when Justice Scalia has a particular view of a situation, as he clearly did here, he has to work *very hard* to fit his result into his view of originalism, imagining hobbit-sized or smaller constables, who could fit into a coach without detection.[126]

By drawing these two traditions towards each other, Balkin reveals and promotes an interpretive method that maintains:

> [F]idelity to the original meaning of the Constitution, and in particular, to the rules, standards, and principles stated by the Constitution's text. It also requires us to ascertain and to be faithful to the principles that

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[123] BALKIN, *supra* note 113, at 8 (citing *inter alia* Scalia, *supra* note 121, at 862–64).

[124] As Balkin points out, "The basic problem with looking to original expected application for guidance is that it is inconsistent with so much of our existing constitutional traditions." BALKIN, *supra* note 113, at 8. These include such notions about federal power and the ability of the federal Government to protect women and the disabled from private discrimination, not to mention constitutional guarantees of sex equality for married women, racial equality, the right to use contraceptives and much of modern First Amendment doctrine. *Id.*

[125] For example, Scalia sounds much like a living originalist in *Jones*, where he agrees that the *Katz* "reasonable expectation of privacy" test is appropriate although it "has a source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society." United States v. Jones, 132 S. Ct. 945, 951 (2012) (quoting Minnesota v. Carter, 525 U.S. 83, 88 (1998) (internal quotation marks omitted). He also notes in *Kyllo v. United States* that:

> We rejected . . . a mechanical interpretation of the Fourth Amendment in *Katz*, where the eavesdropping device picked up only sound waves that reached the exterior of the phone booth. Reversing that approach would leave the homeowner at the mercy of advancing technology—including imaging technology—that could discern all human activity in the home. While the technology used in the present case was relatively crude, the rule we adopt must take account of more sophisticated systems that are already in use or in development.

Kyllo v. United States, 533 U.S. 27, 35–36 (2001).

[126] As Justice Alito points out, to view GPS surveillance as something that might have been possible in 1791, "would have required either a gigantic coach, a very tiny constable, or both—not to mention a constable with incredible fortitude and patience." *Jones*, 121 S. Ct. at 958 n.3 (Alito, J., concurring).

> underlie the text, and to build out constitutional constructions that best apply the constitutional text and its associated principles in current circumstances.[127]

Thus understood, the concurring opinions in *Jones* reflect living originalism at its finest. This Part traces the Court's interpretive process from the oral argument through the concurring opinions to reveal the two limiting principles that were applied in *Jones* and will be applied in the future to evaluate other surveillance techniques: (1) Where a surveillance technique evades normal constraints on abuse of law enforcement powers, the Fourth Amendment requires that abuse must be otherwise constrained; and (2) a surveillance technique that chills the exercise of protected activities violates a reasonable expectation of privacy.

B. *Principles That Protect Us from a Too-Permeating Police Surveillance*

In the oral argument, we see the Court struggle to extract from the Government's lawyer a constitutional principle that will explain their objections to unfettered use of the technology.[128] Their objections were clear as soon as the Chief Justice extracted an affirmative response to the question, "You think there would also not be a search if you put a GPS device on all of *our* cars, monitored *our* movements for a month? You think you're entitled to do that under your theory?"[129] As Justice Kagan said towards the end of the argument:

> I mean, if you think about this, and you think about a little robotic device following you around 24 hours a day anyplace you go that's not your home, reporting in all your movements to the police, to investigative authorities, the notion that we don't have an expectation of privacy in that, the notion that we don't think that our privacy interests

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[127] BALKIN, *supra* note 113, at 3.

[128] *See* Transcript of Oral Argument, *Jones*, 132 S. Ct. 945 (No. 10-1259), 2011 WL 5360051.

[129] *Id.* at *9 (emphasis added). As Tamara Lave points out in her Article at this Symposium, the judges tend to protect activities under the Fourth Amendment when they can relate the intrusion to their own lives. Tamara Rice Lave, *Protecting Elites: An Alternative Take on How* United States v. Jones *Fits into the Court's Technology Jurisprudence,* 14 N.C.J.L. & TECH. 461 (2013)

> would be violated by this robotic device, I'm—I'm not sure how one can say that.[130]

Despite knowing in their hearts that this type of permeating surveillance must be wrong, the Court was having difficulty shoehorning their gut feelings about it into Fourth Amendment doctrine.

At argument, the concurring Justices began a search for a limiting principle that would distinguish between twenty-four-hour surveillance by individual officers and twenty-four-hour surveillance by machines, disconnected from human control in the moment. As Breyer queried during argument:

> The question that I think people are driving at, at least as I understand it and certainly share the concern, is that if you win this case then there is nothing to prevent the police or the government from monitoring 24 hours a day the public movement of every citizen of the United States. And—and the difference between the monitoring and what happened in the past is memories are fallible, computers aren't.
>
> And no one, at least very rarely, sends human beings to follow people 24 hours a day. That occasionally happens. But with the machines, you can. . . . And so what protection is there, if any, once we accept your view of the case, from this slight[ly] futuristic scenario that's just been painted, and is done more so in their briefs?[131]

A discussion then ensued about the possibility of using the duration of the search as a limiting principle, with the suggestion being that the Court could adopt a grey zone beyond which the warrant requirement absolutely applied but before which it did not.[132] Justice Breyer suggested that kind of limit might work and has in fact worked in other situations where the Court "draw[s] an outer limit, [and] say[s] you can't go beyond that," and leaves it "for the lower courts to work out."[133] The government lawyer objected that adopting a principle that "says 1 trip is okay but 30 trips is not, [provides] absolutely no guidance for law enforcement" as to how to proceed in the grey zone.[134] However,

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[130] Transcript of Oral Argument, *supra* note 128, at *57.
[131] *Id.* at *12–13.
[132] *Id.* at *14.
[133] *Id.*
[134] *Id.*

the Government failed to offer the Court an alternative workable Fourth Amendment principle and instead tried to deflect the Court's attention to other constitutional principles that could be used to bring civil challenges to permeating police surveillance post hoc.[135]

Justice Ginsburg pushed back, bringing the lawyer back to the constitutional text at issue and the reasonableness of the Government's actions when tested against societal expectations. She stated:

> But the Fourth Amendment protects us against unreasonable searches and seizures. And if I were to try to explain to someone, here is the Fourth Amendment, the Fourth Amendment says—or it has been interpreted to mean that if I'm on a public bus and the police want to feel my luggage, that's a violation, and yet this kind of monitoring, installing the GPS and monitoring the person's movement whenever they are outside their house in the car is not? It just—there is something about it that, that just doesn't parse.[136]

The Government lawyer's rejoinder focused on other government actions the Court has held are outside the Fourth Amendment that citizens might be similarly uncomfortable with:

> I'm quite sure, Justice Ginsburg, that if you ask citizens whether the police could freely pick up their trash for a month and paw through it looking for evidence of a crime, or keep a record of every telephone call that they made for the duration and the number that it went through, or conduct intense visual surveillance of them, that citizens would probably also find that to be [intrusive].[137]

While some of us might take the public's discomfort with government looking through our trash and collecting records of our phone calls without oversight by a coordinate branch as evidence

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[135] *Id.* at *23 ("[T]o answer in part Justice Breyer's earlier concern about limiting principles, this Court recognized in the *Whren* decision that, although the Fourth Amendment is not a restriction on discriminatory or arbitrary or oppressive stops that are based on invidious characteristics, the Equal Protection Clause is. The First Amendment also stands as a protection. If this Court believes that there is an excessive chill created by an actual law or universal practice of monitoring people through GPS, there are other constitutional principles that are available.").

[136] *Id.* at *23–24.

[137] *Id.* at *24.

of the failings of the Court's decisions in those cases,[138] a sign that the court went astray there, Justice Breyer jumped in to distinguish precedent, rather than to trash it.[139] He pinpointed the difference between these forms of surveillance conducted by police officers and GPS surveillance.[140] As he noted, the government "won't and probably couldn't physically" conduct this type of surveillance on large amounts of people, while with GPS they could.[141] This begins to lead him to the principle for which he has searched.[142] He continued:

> Start with the other end. Start, what would a democratic society look like if a large number of people did think that the government was tracking their every movement over long periods of time. And once you reject that, you have to have a reason under the Fourth Amendment and a principle. And what I'm looking for is the reason and the principle that would reject that, but wouldn't also reject 24 hours a day for 28 days. Do you see where I'm—that's what I'm listening very hard to find.[143]

The Government lawyer responded that line-drawing is too hard and the Court is better off dealing with a big brother situation *after* it occurs, rather than preventing it from occurring in the first place.[144] The Justices were not satisfied.

Justice Sotomayor inquired whether *Jones* did not in fact present a case to address overly broad surveillance and then goes on to point out the ease with which the government could already

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[138] *See* California v. Greenwood, 486 U.S. 35, 40 (1988) (holding that there is no reasonable expectation of privacy in garbage left for collection at curb); Smith v. Maryland, 442 U.S. 735 (1979) (holding that the use of a pen register to record phone numbers dialed infringed no reasonable expectation of privacy).

[139] Transcript of Oral Argument, *supra* note 128, at *24.

[140] *Id.*

[141] *Id.*

[142] *Id.*

[143] *Id.*

[144] *Id.* at *24–25 ("First of all, I think the line-drawing problems that the Court would create for itself would be intolerable, and better that the Court should address the so-called 1984 scenarios if they come to pass rather than using this case as a vehicle for doing so.").

adopt a system of surveillance of large groups.[145] Justice Alito suggests that the most significant limitation on government attempts to gather private information has been logistical:

> It seems to me the heart of the problem that's presented by this case and will be presented by other cases involving new technology is that in the pre-computer, pre-Internet age much of the privacy—I would say most of the privacy—that people enjoyed was not the result of legal protections or constitutional protections; it was the result simply of the difficulty of traveling around and gathering up information.[146]

At this point, the five Justices who join in the view that GPS violates a reasonable expectation of privacy seem to have hit on their interpreting principles. As Sotomayor wrote in her concurrence, the storage of records indefinitely and the ability to mine the information forever, coupled with the cheapness and surreptitiousness of the GPS technology allows law enforcement to "evade[] the ordinary checks that constrain abusive law enforcement practices: 'limited police resources and community hostility.' "[147] When the normal resource constraints no longer apply, the Fourth Amendment requires that abuse must be otherwise constrained.[148]

A finding that a type of surveillance is particularly susceptible

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[145] *Id.* at *25 ("The GPS technology today is limited only by the cost of the instrument, which frankly right now is so small that it wouldn't take that much of a budget, local budget, to place a GPS on every car in the nation . . . [a]lmost every car has it now.").

[146] *Id.* at *10.

[147] *Jones*, 132 S. Ct. at 956 (Sotomayor, J., concurring) (quoting Illinois v. Lidster, 540 US 419, 426 (2004)); *see also id.* at 964 (Alito, J., concurring) (stating that the public's expectation is that "law enforcement . . . would not—and indeed, in the main, simply could not—secretly monitor and catalogue every single movement of an individual's car for a very long period").

[148] *See, e.g.*, Smith et al., *supra* note 35, at 178–79 n.10, and accompanying text; *id.* at 182 ("In cases from *Katz* to *Knotts* to *Kyllo*, wherever a new technology carries the potential for police abuse, the Court has allowed its use only as guarded by the warrant requirement, placing a check on the unlimited discretion otherwise afforded officers. As the Supreme Court has acknowledged, '[r]equiring a warrant will have the salutary effect of ensuring that use of [new technology] is not abused.' " (quoting United States v. Karo, 468 U.S. 705, 717 (1984))).

to abuse would not be enough alone. If the Government could abuse its ability to observe an individual doing things that they are not seeking to keep private, for example an appearance on the Today Show to publicize a new book, that would have no impact on the individual's behavior. It would be hard to argue that the practice constituted an unreasonable search in that instance. That is why the second principle—identified by Justice Sotomayor—is vital to identifying the Fourth Amendment violation. As she explains, the harm of living in a surveillance society, a society where technology is used to follow you anytime or all the time, is the enormous chilling effect on people's associational and expressive behavior: "Awareness that the Government may be watching chills associational and expressive freedoms. And the Government's unrestrained power to assemble data that reveal private aspects of identity is susceptible to abuse."[149] Ultimately, these concerns led her to write:

> I would take these attributes of GPS monitoring into account when considering the existence of a reasonable societal expectation of privacy in the sum of one's public movements. . . . I would also consider the appropriateness of entrusting to the Executive, in the absence of any oversight from a coordinate branch, a tool so amenable to misuse, especially in light of the Fourth Amendment's goal to curb arbitrary exercises of police power to and prevent "a too permeating police surveillance."[150]

Thus, the concurrences' interpret the Fourth Amendment's prohibition against "unreasonable searches" in light of the original purposes of the Fourth Amendment—to protect against police abuse of law enforcement powers and the chilling impact on protected behaviors that overuse of those powers would create. What *Jones* tells us is that any use of the "mosaic" analysis applies in the context of surveillance techniques that violate these original principles.

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[149] *Jones*, 132 S. Ct. at 956. (Sotomayor, J., concurring).
[150] *Id.* (citation omitted).

V. A RESPONSE TO THREE CRITICISMS

Finally, this Part will briefly respond to three criticisms of the *Jones* concurrences raised by Orin Kerr—criticisms that stem from an overemphasis on the role of the mosaic theory in the opinions. Kerr expresses anxiety that the concurrences—read as reliant on the "mosaic theory" and seemingly unlimited by anything else—create confusion about how the Fourth Amendment's reasonable expectation of privacy test will be applied to police investigatory techniques, including, but not limited to, those involving new technologies.[151] Most surprisingly, he expresses concern that the *Jones* concurrences' rule that GPS surveillance violates a reasonable expectation of privacy would also apply to prolonged surveillance of suspects by individual officers because that surveillance also violates the "mosaic theory."[152] But Professor Kerr's narrow focus on mosaics to the exclusion of the limiting principles advocated by all five concurring Justices means he misses the bigger picture in his attempt to discredit *Jones* and the warrant rule for GPS surveillance. Below, this Part will examine three of Kerr's objections.

A. *The Concurrences Do Not Break from Precedent*

In an attempt to undercut *Jones*, Kerr complains, "The theory [of the concurrences] is so different from what has come before that implementing it would require the creation of a parallel set of Fourth Amendment rules."[153] Kerr points out that "Fourth Amendment analysis traditionally has followed . . . the sequential approach: to analyze whether government action constitutes a Fourth Amendment search or seizure, courts take a snapshot of the act and assess it in isolation."[154] He then describes *Jones* as using a "novel" approach under which searches are aggregated and evaluated as a whole, rather than evaluated step-by-step:

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[151] Kerr, *supra* note 31, at 314 (arguing that "implementing the mosaic theory would require courts to answer an extensive list of difficult and novel questions").

[152] *Id.* at 335.

[153] *Id.* at 329.

[154] *Id.* at 315.

> The mosaic theory requires courts to apply the Fourth Amendment search doctrine to government conduct as a collective whole rather than in isolated steps. Instead of asking if a particular act is a search, the mosaic theory asks whether a series of acts that are not searches in isolation amount to a search when considered as a group.[155]

But Kerr is either setting up a straw man for attack or simply has a "missing the forest for the trees" problem. His analysis fails to comprehend the vital difference between human surveillance and surveillance by machine. With GPS, the police officers' control over what will be searched ends with placement of the GPS device. The discrete step is the attachment of the GPS device and then the machines take over. The target may move from place to place, but the "search" continues without a chance for a separate evaluation of police action. The Government conduct simply cannot be broken down into individual "sequential" steps once the machine takes over.

B. *Under the Concurrences, Human Surveillance Aggregating Information Is Fundamentally Different from GPS Surveillance*

Kerr has also suggested that the *Jones* concurrences stand for the proposition that any search method that would gather a "mosaic" of information about a target, including information collected by visual surveillance by individual officers, would constitute a search subject to the Fourth Amendment, and therefore that prolonged human surveillance might now require a warrant.[156] This would be true if the concurrences were advocating a rule that any surveillance method that collected a mosaic of information about a person violated a reasonable expectation of privacy. But as shown above in Part IV, they did not. Only surveillance methods that are subject to widespread abuse and that would create a chilling effect on constitutionally protected behaviors invade the

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[155] *Id.* at 320; *see also id.* at 328 (complaining that Sotomayor applies "the language of sums from the mosaic theory, not the language of individual acts from the sequential approach").

[156] *Id.* at 335 ("If the police send a team of investigators to place the suspect under visual surveillance, should that visual surveillance be subject to the same analysis?").

reasonable expectation of privacy.[157] Once again, Kerr is reading the concurrences too broadly, ignoring the lengths to which the concurrences go to limit their ruling to technology that has the awe-inspiring power to follow any or every person twenty-four hours a day for any (or no) reason whatsoever, and ignoring the difference technology makes.[158] Human surveillance by definition is not susceptible to the type of abuse with which the concurrences are concerned, that is, surveillance abuse allowed by technology freeing surveillance from *human resource* limitations. For now, at least until we create an enormous clone police force creating the possibility of an "overly permeating police surveillance"[159] conducted by people, human visual surveillance will not be a search under the reasoning of the concurrences because it simply does not possess the characteristics that make GPS surveillance troubling.[160] As the majority reaffirmed, "our cases suggest that such visual observation is constitutionally permissible."[161]

C. *Defining "Prolonged" Surveillance Is an Appropriate Line-Drawing Function for the Lower Courts*

In this case the concurrences adopted the approach suggested by Justice Breyer in oral argument, as discussed above. They argued that GPS surveillance lasting four weeks was lengthy enough to impinge on society's expectation of privacy, thus constituting a search.[162] It was not necessary, they wrote, "to

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[157] *See generally supra* Part IV.

[158] United States v. Jones, 132 S. Ct. 945, 956 (2012) (Sotomayor, J., concurring) (quoting Illinois v. Lidster, 540 U.S. 419, 426 (2004)); *see also id.* at 964 (Alito, J., concurring) (stating that the public's expectation is that "law enforcement . . . would not—and indeed, in the main, simply could not—secretly monitor and catalogue every single movement of an individual's car for a very long period").

[159] United States v. Di Re, 332 U.S. 581, 595 (1948).

[160] *See Jones*, 132 S. Ct. at 964 (Alito, J., concurring). It is possible that in the future some amount of around-the-clock human surveillance conducted on large groups of people based on their political beliefs or other protected characteristics could be held to be a search under an analysis similar to that conducted in *Jones*. This, however, is outside the scope of the *Jones* ruling.

[161] *Id.* at 953–54.

[162] *Id.* at 964.

identify with precision the point at which the tracking of th[e] vehicle became a search, for the line was surely crossed before the 4–week mark."[163] The concurrences recognized that "other cases may present more difficult questions," but noted that where there was uncertainty, "the police may always seek a warrant,"[164] thus choosing to err on the side of protecting individual liberties.

There is no doubt that we will see litigation on this issue where law enforcement uses GPS surveillance technology without a warrant for less than twenty-eight days and where established exceptions to the warrant requirement do not apply. There is also no doubt that the area would benefit from statutory intervention. In fact, at least one scholar has already proposed a detailed legislative solution.[165] But this is no reason to condemn the concurrences' rule as Kerr does.[166] In fact, an approach that leaves it to legislatures to take a crack at determining the fine points of doctrine—in this case defining when surveillance will be considered "prolonged"—is often welcomed by constitutional theorists as a minimalist intervention that prevents the Court from usurping the proper Legislative role.[167] Ironically, critics of the concurring Justices' approach are asking for an opinion more reminiscent of the widely condemned trimester framework adopted by the Court in *Roe v. Wade*.[168] The trimester framework set detailed rules for states to follow when regulating abortion pre-

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[163] *Id.*

[164] *Id.*

[165] *See* Christopher Slobogin, *Making the Most of* United States v. Jones *in a Surveillance Society: A Statutory Implementation of Mosaic Theory*, 8 DUKE J. OF CONST. LAW & PUB. POL'Y 1–37 (2012).

[166] Kerr, *supra* note 31, at 333 (criticizing ruling for leaving the time frame unclear as part of a "grouping" problem).

[167] *See, e.g.*, William N. Eskridge, Jr., *Pluralism and Distrust: How Courts Can Support Democracy by Lowering the Stakes of Politics*, 114 YALE L.J. 1279, 1328 (2005); Cass R. Sunstein, *Foreword: Leaving Things Undecided*, 110 HARV. L. REV. 4, 6–7 (1996) (advocating a "minimalist" approach to judicial review where the Court rarely announces broad new principles and instead proceeds incrementally).

[168] 410 U.S. 113, 163–64 (1973).

viability,[169] and was finally abandoned by the Court in *Planned Parenthood v. Casey.*[170] In *Casey,* the Court maintained *Roe*'s outer limit allowing bans on abortion post-viability as long as a woman's life and health are protected, and reaffirmed a woman's right to abortion pre-viability. However, the Court allowed increased regulation of pre-viability abortions, and left it to legislatures to test the limits on their new power to regulate pre-viability, and to the courts to work out which regulations imposed "undue burdens" on the right to abortion.[171]

In this author's opinion, the more detailed framework provided by Justice Blackmun in *Roe* was the result of a careful balancing of interests and tied to the changing circumstances of pregnancy, the risks inherent in continuation to term, the risks of the different abortion procedures required at different stages of pregnancy, and the changing nature of the zygote into embryo, previable fetus, and then viable fetus.[172] But the trimester framework was widely excoriated as being too legislative.[173]

In this case, without the bio-physical markers provided by changing fetal development and the evolving risks of pregnancy and abortion procedures which largely correlate to the three trimesters,[174] the concurring Justices adopted an approach similar to that adopted by the Court in *Casey*, setting an outside limit and leaving it to legislatures to set specific rules before that limit, or to

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[169] *Id.*

[170] 505 U.S. 833, 873 (1992). In *Casey*, the Court referred to the trimester framework as "an elaborate but rigid construction." *Id.* at 872. It went on, however, to admit that it was overruling the trimester framework not because of its rigidity, but because it disagreed with the balance struck by the Court between the interests of the pregnant woman and the interests of the state in regulation. *Id.* at 873 ("The trimester framework . . . misconceives the nature of the pregnant woman's interest; and in practice it undervalues the State's interest in potential life . . . .").

[171] *Id.* at 878–89 (summarizing holding).

[172] Priscilla J. Smith, *Responsibility for Life: How Abortion Serves Women's Interests in Motherhood*, 17 J.L. & POL'Y 97, 129 n.132 (2008).

[173] *See, e.g.*, Cass R. Sunstein, *supra* note 167, at 20 (arguing that Roe was too legislative and decided too many issues too quickly).

[174] Smith, *supra* note 172, at 129 n.132.

lower courts to address the issue in individual cases. There is no reason to believe that the type of approach adopted in *Jones* "would . . . deter enactment of statutory privacy regulations and force judges to consider questions that they are poorly equipped to answer," as Kerr claims.[175] As Justice Alito pointed out, Congress responded to *Katz* by "promptly enac[ting] a comprehensive statute, . . . and since that time, the regulation of wiretapping has been governed primarily by statute and not by case law."[176] Nor has the non-legislative approach had the effect of deterring enactment of regulations in the abortion context.[177] Accordingly, it was certainly appropriate for the concurrences to avoid a "legislative" solution here, using the principles highlighted above to give guidance to law enforcement and the lower courts as they move forward.

VI. CONCLUSION

The concurrences' view that warrantless GPS surveillance violates *Katz*'s reasonable expectation of privacy test is guided by the original principles the Fourth Amendment was designed to promote—protecting against the potential for government abuse of law enforcement powers[178] and the danger of the impact of a chilling effect on protected behavior that would result from overly

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[175] Kerr, *supra* note 31, at 315.

[176] United States v. Jones, 132 S. Ct. 945, 963 (2012) (Alito, J., concurring) (internal citations omitted) (citing 18 U.S.C. §§ 2510–2522 (2006 ed. and Supp. IV)).

[177] *See, e.g.*, *Laws Affecting Reproductive Health and Rights: Trends in the First Quarter of 2012*, GUTTMACHER INSTITUTE, http://www.guttmacher.org/statecenter/updates/2012/statetrends12012.html (last visited Apr. 1, 2013) (describing record breaking pace of legislative enactments taking place in the first quarter of 2011, when 127 abortion restrictions were approved by at least one body, and 38 enacted); *Monthly State Update: Major Developments in 2013*, GUTTMACHER INSTITUTE, http://www.guttmacher.org/statecenter/updates/index.html (last visited Feb. 1, 2013) (providing information on abortion legislation in the first months of 2013 nationwide).

[178] *See, e.g.*, Smith et. al., *supra* note 35, at 178–79 & n.10 (listing additional authority); *see id.* at 181–89 (examining Supreme Court decisions discussing the Fourth Amendment's role in controlling potential for law enforcement abuse).

permeating surveillance, now enabled by digital and satellite technologies.[179] Using these two principles to determine whether GPS surveillance is a reasonable search to which the limitations of the warrant requirement apply, the concurrences endorse a conception of privacy concerned with identity and self-expression as much as information. Making more explicit the Fourth Amendment's role in protecting privacy to protect these aspects of identity would assist the Court in explaining its concerns about new technology and a surveillance state. It also shares some elements with the shift in other areas, such as abortion and gay rights, from privacy to liberty and dignity concerns.[180] For now, the Government is free to continue to use GPS for surveillance when it gets a warrant based on probable cause, or if one of the other well-delineated exceptions to the warrant requirement applies,[181] or if it wants to test the line the Court has drawn in the sand against a surveillance society. For now, at least, the Eye of Sauron[182] has been shut.

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[179] *See id.* at 179 n.12 (citing Daniel J. Solove's discussion of the chilling effects and harm to democracy and self-determination created by *potential* for abuse of surveillance techniques in *Digital Dossiers and the Dissipation of Fourth Amendment Privacy*, 75 S. CAL. L. REV. 1083, 1101–02 (2002)).

[180] In a different article, the author is exploring the relationship between the evolution of the right to privacy to the rights to liberty, dignity and equality in substantive due process cases and the evolution of the reasonable expectation of privacy in Fourth Amendment cases. In both areas, changing realities of modern life, views of the connection between sexuality and self-expression, and new conceptions of equality are forcing the Court to rethink doctrine. Priscilla J. Smith, *Express Yourself: The Evolving Doctrines of Privacy and Self-Expression* (unpublished manuscript) (draft on file with author).

[181] Consider the circumstances in which Obi Wan tossed a tracking device onto Boba Fett's spaceship as Boba fled the rainy planet, taking with him evidence about the ordering and development of the Clone Army, including one of the clones itself, the one Boba kept as a son. That was surely an exigent circumstance.

[182] *See supra* note 114. The Eye of Sauron is the image most often associated with Sauron and which can see the book's hero, Frodo Baggins, when he touches the titular Ring. *Frodo Baggins*, LORD OF THE RINGS WIKI, http://lotr.wikia.com/wiki/Frodo_Baggins (last visited May 10, 2013). *See generally* J.R.R. TOLKIEN, THE LORD OF THE RINGS: THE FELLOWSHIP OF THE RING (1954).