THE MOSAIC THEORY:
IMPLICATIONS FOR CELL SITE LOCATION TRACKING

by

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DEDICATION

This work is dedicated to the lovers of liberty who have inspired and motivated me to support and defend The Declaration of Independence, The Constitution, and The Bill of Rights.

Alex Jones, Congressman/Dr. Ron Paul, and Judge Andrew Napolitano;

Your passion, enthusiasm, and love of freedom are truly remarkable.

Dr. Michael Payne,

You taught me the importance of questioning and thinking for myself.

Finally, our great Founders who laid the groundwork for this remarkable experiment in self-government, particularly George Washington and Thomas Jefferson.

I hope to spread the genius of your work.

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ABSTRACT

The purpose of the work is to confront and discuss the unique legal and privacy implications that cell site location data tracking through service providers poses for current Fourth Amendment jurisprudence. After a brief explanation of how cell phone tracking works, discussion is directed to the early Framers' intent in configuring the Fourth Amendment and then examines the notion of privacy under the Fourth Amendment both prior to and following the seminal Supreme Court decision of *Katz v. United States* (1967), including a review of the Supreme Court's historical treatment of tracking devices post-*Katz*. The paper reviews the third-party assumption of risk doctrine, which currently allows the government to collect information where such information has been revealed to a third-party for a limited business purpose. Finally, consideration is directed to the *Maynard* Court's utilization of the "mosaic" theory in a Fourth Amendment search framework and how its adoption of the mosaic created a novel approach for countering the government's reliance on the third-party assumption of risk doctrine. It is maintained that when the time comes for the Supreme Court to review the issue of cell site location tracking that the mosaic theory will inform and fashion the Court's decision to broaden privacy protections under the Fourth Amendment.

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CHAPTER I

INTRODUCTION AND OVERVIEW

There is perhaps no more omnipresent symbol of our modern, interactive society than the cell phone. What was once an expensive toy for the rich has now become a necessity for most Americans. It is estimated that some 320,000 million individuals in the United States actively subscribe with cell phone service providers (CTIA, 2012; Blaze, 2010, p.3). That number represents triple the number of subscribers just a decade ago (CTIA, 2012). Although such a seismic increase in cell phone ownership is astonishing, perhaps the most distinguishing aspect of cell phones is that they allow us to be accessible to others at any given moment, whether at our office, in our car, at a restaurant or bar, or even in our bed. It is though we are "on call" in our daily lives at all hours of the day and night. As one study found, 44 percent of cell phone users slept with their phone next to the bed (Mohn, 2013, p. B3). The ubiquitous nature of cell phones has not only altered the balance between work-life, where each of us is "available" for calls, texts, and emails, wherever we might be: they also have altered the balance between a citizen's "right to be left alone," as Justice Brandeis once entreated (Warren & Brandeis, 1890, p.193), and the government's legitimate law enforcement goal of crime detection and prevention.

The latter tension is one that is certainly well known and appreciated by those engaged in Fourth Amendment jurisprudence. As cell phone location tracking by the government demonstrates, emerging technologies have the capability of constricting the

notion of what constitutes a "reasonable expectation of privacy" for citizens (*Katz v. United States*, 1967, p. 361) (Harlan, J., concurring), particularly if they happen to venture into a public space. Cell site location tracking by law enforcement holds the potential, absent strict and transparent judicial oversight, to effectuate an on-going erosion of the boundaries of places and locations where individuals can enjoy personal solitude, escaping the shadow of governmental scrutiny. Such places, though they may be beyond the private confines of one's home, can very well harbor qualities inhering in one's perceived sense of private autonomy (Westin, 1967, p. 31). Though not expressly enumerated for protection under the Fourth Amendment, should not the personal autonomy and inherent dignity of each individual allow for some conduct, although performed in a public area, to be carried out under a perceived normative expectation that they are not being continuously monitored? Can it not, at the very least, be suggested that there exists a perceived societal normative expectation that one should have a reasonable expectation that their every movement will not be continuously and indefinitely monitored by tracking technology without their knowledge, at least absent a warrant based on probable cause (Walsh, 2012, p. 172)?

The U.S. Supreme Court has had a rather lackluster historical record on Fourth Amendment right to privacy issues regarding police surveillance and its attendant technology. Whether it has been the warrantless naked-eye aerial observations of residential backyard property (*California v. Ciraolo*, 1986; *Florida v. Riley*, 1989), the warrantless search of garbage left for collection at street side (*California v. Greenwood*,

1988), or the use of electronic beepers to track suspects (*United States v. Knotts*, 1983), the Court has consistently held that such actions did not constitute a search due to the fact that what a person knowing exposed to the public did not come within the purview of the sphere of privacy subject to Fourth Amendment protection (*Katz v. United States*, 1967, p. 351). Thus, even subjected to a more enhanced form of technological surveillance, such as GPS tracking and cell site location tracking through service providers, can a person reasonably expect to claim a privacy interest when they are in a publicly accessible area (Walsh, 2012, p.173)?

It is difficult to believe that in 1928, when Justice Brandeis made the prescient statement, that "subtler and more far-reaching means of invading privacy" had become available to the government through technological advancements, and that surveillance was "not likely to stop with wiretapping" (*Olmstead v. United States*, 1928, pp. 473-474) (Brandeis, J., dissenting), that anyone could have imagined the technological developments that have resulted in cell phones and GPS technology. Cellular phones truly have made us a connected society, and world. At the same time, however, it has provided the government and law enforcement agencies the mechanism for almost unlimited and widespread covert surveillance activities through cell site location information tracking, both in historical and real-time terms (Davis, 2012; McLaughlin, 2007; Richmond, 2007). The courts are placed in the position of having to decipher where that equilibrium will be drawn between the nature and quality of the intrusion on a person's Fourth Amendment interests and the legitimate needs and goals of law

enforcement (*United States v. Place,* 1983, p. 703; Kerr, 2012), which may very well protect us, but at a potential cost to our privacy, and perhaps, our freedom.

Shaping the Privacy Debate

Journalists, academics, and privacy advocate groups have paid attention to GPS tracking for the last decade, during which time a number of state and federal courts issued decisions on the question of whether attachment and/or monitoring of a GPS tracking device to a vehicle violated Fourth amendment privacy protections, with conflicting outcomes and rationales (Keener, 2007/2008). Some courts viewed GPS tracking as not constituting a search, thus no warrant was necessary (*Osburn v. Stat*e, 2002; *State v. Sveum,* 2009; *United States v. McIver*, 1999; *United States v. Garcia,* 2007; *United States v. Pineda-Moreno,* 2010). Other courts held that a warrant based on probable cause was required in order to track a suspect (*People v. Weaver,* 2009; *Commonwealth v. Connolly,* 2009). It was not until the case of *United States v. Maynard* (2010) that a court took a wholly different approach by using a "mosaic theory," which aggregated as a whole the amount and type of information gathered by GPS tracking of a vehicle continuously over a 28 day time period, and holding that such monitoring was a search in violation of the defendant's reasonable expectation of privacy (*Maynard,* p. 563). The decision ran counter to every other federal court of appeals that had previously taken up the issue.

The Supreme Court subsequently granted certiorari and thus set the stage for what would become a significant decision regarding privacy expectations in an advanced technological surveillance age (*United States v. Jones*, 2011). Although the majority felt

it unnecessary to employ the mosaic approach, basing its holding on narrower trespass grounds in concluding that an unreasonable search had taken place (*United States v. Jones*, 2012, pp. 951-54), it was the two concurring opinions endorsing a mosaic approach that seem to have unfurled an important thrust for dismantling the government's stone wall of the third-party doctrine (*Jones*, pp. 955-56, 964) that, in essence, limits an individual's privacy protections in situations where information has been disclosed or shared with another (*Smith v. Maryland*, 1979).

While perhaps some of the same academics, privacy advocates, and journalists believed the *Jones* decision had deflated privacy concerns with tracking technology, up sprouted police requests and court orders to cell phone service providers for cell site location information [CSLI] without securing a search warrant based on probable cause (Barnard, 2009, p. A16; Curtiss, 2011; Davis, 2012; Harkins, 2011). Some of the providers have resisted such requests, while more have handed over such information. Cell phone providers responded to a reported 1.3 million requests in 2011 alone (Lichtblau, 2012, p. A1; Liptak, 2012, p. A15).

Requests from police for cell site location information for cell phones using GPS technology is causing particular confusion in light of the Supreme Court's *Jones* decision, which was narrow in its scope, relying on trespass principles (*Jones*, pp. 951-54). Cell site location information accessed from service providers seems, on its face, to skirt the limits on tracking set by *Jones* for the reason that no trespass takes place. Although CSLI has gone on largely unnoticed in the shadow of GPS tracking, perhaps

due in part to the type of magistrate orders allowing it and at the same time operating beneath the radar and without judicial review (Smith, 2012), there is an increasingly heated statutory and constitutional debate centered on the issue of what legal burden must the government meet in order to access this information (Curtiss, 2011; Davis, 2012; Harkins, 2011; Richmond, 2007; Smith, 2012). At the same time, it may be the concurring opinions in *Jones* (2012) that will shape the contour of future legal debate regarding privacy rights and surveillance technology such as CSLI tracking.

The thesis is necessarily qualitative in its research methodology. The endeavor will examine and analyze legal cases, relevant statutory law, Fourth Amendment principles, and legal scholarship relating to warrantless cell site location tracking. Its overall aim is to confront and discuss the unique legal and privacy implications that cell site location data tracking through service providers poses for current Fourth Amendment jurisprudence.

The thesis will develop its examination and discussion in the following sequence. After a brief explanation of how cell phone tracking works, I turn to a discussion of the early framers' intent in configuring the Fourth Amendment in Chapter II. It is valuable to understand how the Fourth Amendment as originally understood can hold any relevance to contemporary privacy issues, many of which would have been impossible to imagine. Chapter III focuses on the legal treatment of the notion of privacy under the Fourth Amendment both prior to and following the seminal Supreme Court decision of *Katz v. United States* (1967), which laid out the reasonable expectation of privacy test. The

Chapter includes a review the Supreme Court's historical treatment of tracking devices post-*Katz*. In Chapter IV, an examination is carried out of the third-party assumption of risk doctrine, which currently allows the government to collect information where such information has been revealed to a third-party for a limited business purpose. Chapter V explains the reasoning of the *United States v. Maynard* (2010) decision as well as its later incarnation in *United States v. Jones* (2012). Consideration is directed to the *Maynard* Court's utilization of the "mosaic" theory in a Fourth Amendment search framework and how its adoption of the mosaic created a novel approach for countering the government's reliance on the third-party assumption of risk doctrine. Chapter VI considers the implications of *Maynard*, which became evident in the two concurring opinions in *Jones*, and may be a compelling challenge to the third-party doctrine's overbroad application to warrantless cell site location tracking by police through cell phone service providers. It is maintained that when the time comes for the Supreme Court to review the issue that the mosaic theory will inform and fashion the Court's decision to broaden privacy protections under the Fourth Amendment.

Cell Site Location Tracking Technology

To better grasp the debate over cell phone location tracking, it is helpful to have a basic understanding of how cell phone tracking technology works. In simple terms, a cell phone is akin to "a radio—an extremely sophisticated radio, but a radio nonetheless" (Layton, Brain & Tyson, n.d.). Indeed, before widespread availability of cell phones, individuals who relied on mobile communications usually installed radiotelephones in

their vehicles (Layton, Brain &Tyson, n.d.). Unlike traditional land-based lines, which are rapidly vanishing, cell phones rely on radio waves in order to communicate between the handset and cellular service network of radio base stations called "cell sites," which are distributed throughout different geographic coverage areas (*In re for Historical Cell Site Data*, 2010, p. 831)[hereinafter, *Smith Opinion II*: S.D. Tex.]. The quality of the signals to and from the cell sites is typically measured by what most cell phones users understand as the "bars." Whether or not a user is actively engaged in a call, the cell phone will constantly remain in contact with nearby cell towers (*Smith Opinion II*: S.D. Tex., 2010, p. 831). The quality and strength of the signals determine through which towers calls are routed both to and from the cell phone in order to provide for the best possible reception and least cross-interference with other cell users (Curtiss, 2011, p. 140; Davis, 2012, p. 848).

Importantly, as part of this process, cell phones are constantly conveying their location to cell towers in order to have both the strongest signal and to prevent time delays in making and receiving calls. This process of identification, which is referred to as "registration," is automatic and continuously occurs approximately every seven seconds while the phone is on and without any active assistance from the cell phone user (Chamberlain, 2009, p. 1752; McLaughlin, 2007, p. 426; *Smith Opinion II*: S.D. Tex., 2010, p. 832; Walsh, 2012, p. 242). Indeed, the user may be unaware that such information is even being transmitted. The only way to prevent such signals from transmitting is to turn the cell phone off (McLaughlin, 2007, p. 426).

Cell site location information (CSLI) is provided to cellular network providers by constant re-registration with whatever cell tower is providing the strongest signal, which will normally be the closest tower (Layton, Brain &Tyson, n.d.). In order to determine which tower is closest to the cell phone, and thereby better route incoming calls in those instances where two towers are both receiving signals from the same phone, provider networks rely on one of two systems to home in on the phone's location. As a cell phone's location progresses nearer to one tower than another, the nearer tower will recognize increasing strength in the cell phone's signal (McLaughlin, 2007, p. 426). The network tower can utilize a Time Distance of Arrival ("TDOA") or Angle of Arrival ("AOA") method, measuring the strength of the signal and thereby the location of the cell phone (McLaughlin, 2007, p. 426). A "TDOA" system determines a phone's location by calculating the time it takes a cell phone signal to arrive at multiple cell towers, while "AOA" compares the relative angles from which a cell phone's signal travels to multiple towers, using such information to "triangulate" a cell phone's location (McLaughlin, 2007, p. 427).

At the same time, the ability to pinpoint a particular cell phone's location is dependent on the geographical size of the cell sector. The smaller the sector, the more precisely a phone's location can be tracked. Thus, a smaller cell-site allows for a more accuracy in determining the user's location (*Smith Opinion II*: S.D. Tex., 2010, pp. 832-33). The fact that cell sites have more than tripled in the U.S. over the past 10 years has produced much more accurate tracking information for surveillance activities (*Smith*

Opinion II: S.D. Tex., 2010, pp. 832-833). If at least three towers that are receiving signals are used in the triangulation process, a nearly precise location of the phone may be determined, perhaps even to a particular floor or room within a building (Blaze, 2010, p. 12; McLaughlin, 2007, p. 427).

The reality is that it is now possible to track an individual using a cell phone within a few meters anywhere on earth. And, of course, one aspect of that reality is the practical utility of this technology for law enforcement surveillance operations. At the same time, there are also more benign, socially beneficial uses of such tracking, such as pinpointing the location of a 911 emergency call from a cell phone, keeping track of where one's children might be, and employers logging the location of mobile employees. As Justice Brandeis once cautioned, experience should be a lesson for each individual to be ready to protect liberty when the government's intentions are "beneficent" (*Olmstead v. United States*, 1928, p. 479)(Brandeis, J., dissenting). However, it is the increasing use of law enforcement tracking of cell site location data that is raising legal and constitutional concerns for privacy advocates, particularly where such tracking is carried out without judicial oversight ((Lichtblau, 2012, p. A1; Liptak, 2012, p. A15). As will be considered in later parts of this work, when advanced technologies unfold that portend, in the government's hands, to raise the specter of compressing the privacy zones of individuals, current legal paradigms may be unprepared to address the new challenge (Lessig, 1996).

The next Chapter discusses the intent behind the Framers' adoption of the Fourth Amendment, with particular consideration of their intended notion of what it was to protect. In fairness, the early Framers could not have foreseen the advanced state of surveillance capability extant in this day. Indeed, perhaps their primary concern was to protect their homes from being invaded pursuant to general warrants. It is this restricted notion of "physical trespass" that has provided the engine for going beyond the written amendment itself to other principles that it presupposes in order to confront and address advanced technologies that were certainly not available to the Framers (*see* Kerr, 2004).

CHAPTER II

THE FOUNDING FATHERS' FOURTH AMENDMENT

In order to understand why cell phone tracking is a violation of an individual's liberty, it is important to understand the principles the Founders recognized that led to the Fourth Amendment being added to the Bill of Rights. The history of America and political character are all about liberty, which can be defined as employing human rights in any method someone selects as long as it does not intrude on the rights of others; and above all else, this means keeping government out of people's lives (Paul, 2011, p. xi).

Napolitano (2011) observes in Robert Bolton's play, *A Man for All Seasons*, where the character St. Thomas More made the astute observation that: "Some men think the Earth is round, others think it flat;…. But if it is flat, will the King's command make it round? And if it is round, will the King's command flatten it? No" (p. xviii). More used those words in defense while representing himself for high treason because he refused to acknowledge the king as the head of the church on earth. The end result was the government separating his head from his body. When making this argument to the jury, More appealed to their common sense as well as to their understanding of what it known as Natural Law. By the time of Thomas Jefferson, scholars of Judaism and Christianity, famous skeptics, and surprisingly, atheists and deists, believed it was false that kings acquired their God-given right to rule, that every human being was in charge of their own body, and that personal freedoms were essential and fundamental to those bodies (Napolitano, 2011, p. xi). Whether the main root of human freedom is established in

biology or the laws of God, freedom is a reality and belongs to us via nature (Napolitano, 2011, pp. xi-xii).

Robert Beale, clerk of the Privy Council, is probably the first person to observe that the Magna Carta acknowledged the right to privacy in one's home (Levy, 1999, p. 80). After the French and Indian War, Great Britain was in severe debt and needed to raise money, so the King and Parliament created ingenious ways of accomplishing this. Laws were enacted placing taxes on the colonists; the most notorious of which was The Stamp Act of 1765. "For the first time, the British government was reaching into the ordinary workings of Americans' lives; most disturbingly, Americans had no say in this" (Murphy, 2008, p. 18). Some of the paper transactions the act placed a tax on were marriage certificates, ships' papers, legal documents, newspapers, playing cards and dice (Schweikart & Allen, 2004, p. 63). In order to guarantee that each colonist had the required stamp, the Writs of Assistance were enacted. This was based off an act of 1662, which enabled the Court of Exchequer to distribute a writ to a custom official, who, with the help of a constable, could access: "any House, shop, Cellar, Warehouse or Room or other Places, and in Case of Resistance to break open Doors, Chests, Trunks and other packages, there to seize" (Levy, 1999, p. 84).

The colonists were furious not only because the Stamp Act placed a tax on virtually every paper transaction and legal document, but also because the British government was able to authorize its own general search warrants, which were wide in scope and not based on probable cause that any crime had, or was, being committed.

While in the home, the soldiers could help themselves to food and alcohol, seize furniture, and even expel the owners for as long as they desired. As Murphy (2008) observes, even an everyday colonist did not have to be an expert in politics to see that the Stamp Act was tyranny (p. 20). The colonists had long been of the opinion that a man's house was his castle due to the fact that it was frequently repeated dating back to the early sixteenth century (Levy, 1999, p. 80). In 1763, William Pitt spoke before Parliament claiming:

> The poorest man may, in his cottage, bid defiance to all the forces of the Crown. It may be frail; its roof may shake; the wind may blow through it; the storm may enter, the rain may enter, but the King of England may not enter; all his force dares not cross the threshold of the ruined tenement. (Levy, 1999, p. 80)

It was James Otis who made the initial argument against searches conducted under the general writ of assistance, claiming such general warrant violated, "the Privilege of the House" (Davies, 1999, p. 601), and Otis contended that such writs constituted an instrument of "slavery", of "villainy", of "arbitrary power, the most destructive of English liberty and [of] the fundamental principles of the constitution..." (Levy, 1999, p. 85). Otis claimed the only legal writ was one directed to specific officers, limited to specific places, and based on a sworn statement that goods are concealed in a particular location (Levy, 1999, p. 85).

The Stamp Act eventually became so unpopular that it united the colonies and, in 1766, Great Britain repealed it (Knauer, 2005, p. 17). Subsequently, the Townshend Acts, named after British Chancellor of the Exchequer Charles Townshend, were enacted proposing a series of new taxes and increasing the power of British government officials to search the colonists' property without warrants (Murphy, 2008, pp. 22-23). What was mainly a local concern expanded, because, the highest court in each colony had the power to distribute writs of assistance to customs officers to search wherever they desired for prohibited or non-customed goods and to confiscate them (Levy, 1999, p. 90). A series of incidents, including British soldiers policing the colonists, the Boston Massacre, the Boston Tea Party, and the British Army's attempt to disarm the colonists, eventually led to the American War for Independence. Every student of American history knows what happened next; America fought a revolution, won the revolution and wrote a Constitution.

Positivism vs. Natural Law

After the American War for Independence, American's first Constitution, the Articles of Confederation, was found to be "weak," because the Union suffered from a lack of agreement, State paper currency was useless, taxes were too high, agreements between states could not be enforced, and commerce between the States was tense (McClanahan, 2012, p. 2). As a result, in 1787 Congress extended an invitation to the states to send delegates to Philadelphia "for the sole and express purpose of revising the Articles of Confederation," thereby rendering "the federal constitution adequate to the

exigencies of government, and the preservation of the Union" (Skousen, 2007, p. 135). Instead, the delegates discarded the Articles and created a new Federal Republic with written limitations on government powers and with written guarantees on human freedom.

Just like modern times, there was a group favoring big government and a group favoring a limited role for government. Alexander Hamilton represented the big government crowd, which made the argument that freedom emanates from the government and without government there can be no freedom. At the same time it was contended that since government gives freedom, it can take it away, and as long as the majority rules, freedom is secure (Redpillvideo, 2010). This theory is known as Positivism, which teaches that the law is whatever human lawmakers create, that the government grants all our rights which can be removed with the government's power, and the central ingredient was the idea that an act was considered lawful as long as it was lawfully enacted and was enforceable (Napolitano, 2011, p. xxxi). At the same time, some viewed Positivism as favoring the majority as opposed to the individual and thereby restricted freedom (Napolitano, 2011, p. xxxi).

Thomas Jefferson, who was not actually present, but who through James Madison, asserted that freedom comes from our shared humanity and is ours by our birthright. For example, our right to life, to think as we wish, to say what we think, to publish our thoughts, to travel, to worship or not to worship, as well as our right to due process, private property, and the right to be left alone, are rights accorded everyone by

birth (Redpillvideo, 2010). Jefferson, when writing The Declaration of Independence, laid out this concept. Napolitano (2011) explains: “There are some things which humans and their constructed governments simply cannot change…those things transcend our human capacities and cannot be the object of our will. Individuals and government are thus always secondary and subject to these truths” (p. xv). Such truths are known as natural laws and everyone acquires their natural rights by being human, and such laws protect our fundamental desire from government intervention (Napolitano, 2011, p. xvi). Moreover, laws are only legitimate to the extent that they agree with and are inferior to these natural rights. This is the essence of Natural Law, (Napolitano, 2011 p. xvi).

To gain a better insight on Natural Law, its foundation must first be examined in the context of what is referred to as Eternal Law. The laws of physics, anatomy, chemistry, mathematics, and biology are laws that govern the role of the universe and the universe will always depend on them. These rules are self-evident, which means no interpretation or proof is required in order to understand their operation (Napolitano, 2011, p. xvii). For example, Congress cannot change the rate at which gravity controls the speed at which a pen drops, and Congress cannot proclaim 2 + 2 = 22 (Napolitano, 2011, p. xviii). These self-evident truths can never be adjusted, and are always defeated by what Jefferson called the, “Laws of Nature and of Nature’s God” (Napolitano, 2011, p. xviii). According to Skousen (2009, p. 35), the Laws of Nature or Nature’s God is timeless in its primary virtue; it extends to the entire world in its use. It cannot be

changed, revoked, or deserted by the lawmakers or the people even if they pretend to do so (Skousen, 2009, p. 35).

Human nature is protected by natural rights and is described as self-evident and inalienable. Self-evident means these rights do not demand scientific proof to understand their entity. Inalienable means unless we relinquish these rights, they are unable to be removed under any condition (Napolitano, 2011, pp. xxii – xxiii). The foundation of the Constitution and Americans' life-style is grounded in Natural Law with some examples being: unalienable rights, unalienable duties, habeas corpus, limited government, separation of powers, checks and balances, self-preservation, contracts, justice by reparation, no taxation without representation, and the right to bear arms (Skousen, 2009, p. 40). To justify the thoughts behind Natural Law and the foundation of the United States, The Declaration of Independence must be analyzed.

Locke's Influence on Jefferson

In 1776, the Second Continental Congress selected Thomas Jefferson to author what would arguably become the most important document in the history of the United States, the Declaration of Independence. One of Jefferson's main influences was British philosopher John Locke, who argued that the rights of man originate from the laws of nature, not the monarchy (Knauer, 2005, p. 78). John Locke was one of the most important Enlightenment thinkers and the father of what was formerly called Liberalism (Napolitano, 2011, pp. 1-2). Today, the word "liberal" carries a different meaning than the version used by Washington and Jefferson. Originally, "liberal", going back to the

late Middle Ages until the first part of the twentieth century, was used as the idea for freeing society from the chains of the state (Paul, 2011, p. XII). John Locke was also author of *The Two Treaties of Government* published in 1689, and is considered by many to be the Grandfather of the American Revolution (Napolitano, 2011, pp. 1-2). Locke viewed society as an agreement between the governed and the government, which was established by the consent of the people (Knauer, 2005, p. 57).

In his second treatise, titled *An Essay Concerning the True Original, Extent, and End of Civil Government*, Locke (1689/2003) describes a state of nature, where all men are born perfectly free, can order their own actions, dispose of their own possessions and persons as they see fit, and are governed by the natural law of morality (p. 101). In this, a state of equality exists, meaning no ones rights are greater than another's, and these natural rights belong to all people, bestowed by the Creator, as a result of our humanity (Napolitano, 2011, p. 2). According to Locke (1689/2003), man wants to preserve his property, which consists of his life, liberty, and estate, from the injuries and attempts of other men (p. 136). Therefore, societies are formed when individuals come together in an attempt to obtain various merchandise and property, which will naturally result in conflict, because man is not perfect and makes mistakes. This is the only reason governments are instituted, their single task being the preservation and protection of every individual's natural rights, and the only way governments acquire this power is by the approval of the individuals involved (Napolitano, 2011, p. 2). Locke (1689/2003), observed it is evident that absolute monarchy is inconsistent with civil society and cannot

be a form of civil government (p. 138). If governments misuse their powers, or if the individuals do not agree to the method of governing, it is the right of the people to remove their consent or to change or abolish the government (Napolitano, 2011, p. 2).

Locke advanced the understanding of Natural Rights, his theory being that in a perfectly free state of nature, humans are free to direct their own actions, exercise free will, employ their own person, and to acquire and freely dispose of their possessions. The state of nature, which can be thought of as human existence without government and without the need for government, was also seen as a state of equality; where no one's rights were inferior to anyone else's rights. Therefore, no individual has the right to tell another person how to live his own life, and no one can force his own free will on another to deprive that person of his or her own free will (Napolitano, 2011, p. 4). With Locke's influence in mind, Jefferson drafted the Declaration of Independence.

The Declaration's Meaning

The most important and well-known section of the Declaration of Independence is the second paragraph. It reads: "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness" (U.S. Declaration of Independence, para. 2, 1776). Self-evident truths are facts that prove themselves and require no explanation. The meaning of the phrase, all men are created equal, does not imply that each person has uniformity of intelligence, financial status, ability, or that each is equal in every possible sense (Napolitano, 2011, p. 14). People can only be equal in

three ways: in the eyes of God, in the eyes of the law, and in the defense of their rights (Skousen, 2009, p. 79). The phrase reflects Locke's viewpoint, which maintained that no man has a command from God to rule over other men (Napolitano, 2011, pp. 14-15). The duty of society is, as it is with God, is to accept people in their range of individual differences, but treat them as equals when it comes to their position as human beings (Skousen, 2009, p. 79). It must be borne in mind that Jefferson was establishing a government where the rights of everyone were identified and appreciated by others, even those in the government.

That all humans are endowed with "certain unalienable Rights," implies that everyone is born fully possessed of rights and that those rights can only be seized through deliberate, purposeful criminal behavior (Napolitano, 2011, p. 15). According to Jefferson, the government gets its power from the consent of the governed and governments are instituted to secure everyone's rights. Nowhere did Jefferson claim that government might gather its just powers from the consent of the majority. The consent to be governed must be given by each person governed (Napolitano, 2011, pp. 15-16). He further contended that if everything were left to majority rule, there would be no freedom.

Democracy vs. Republic

According to Barton (2010), Americans have become accustomed to hearing that the United States is a democracy, however, it is actually a republic (p. 341). The current confusion on the word "democracy" was the result of a meeting in New York City in 1905 among approximately 100 people who organized what they called the

Intercollegiate Socialist Society (ISS) (Skousen, 2009, p. 115). The leaders established chapters on more than sixty college and university campuses coast-to-coast and explained the ISS was created to "throw light on the world-wide movement of industrial democracy known as socialism" (Skousen, 2009, p. 115). However, by 1921 the Union of Soviet Socialist Republics had given the term "socialism" a distasteful meaning to many people. One consequence was that the ISS changed its name to "The League for Industrial Democracy" (Skousen, 2009, p. 115). Napolitano (2011) notes, in 1992, the Los Angeles Times wrote, "Democracy is not freedom. Democracy is two wolves and a lamb voting on what to eat for lunch" (p. 6). The real danger in a democracy is the majorities' ability to dictate the definition of minority rights (Paul, 2011, p. 66). A pure democracy is an enemy of an individual's rights, and harms the minority, because 51 percent of the voters make the rules (Paul, 2011, p. 65). When an issue is to be decided in a pure democracy, the entire population votes, the direct majority vote of the people is used, and the majority rules. A republic on the other hand, is rule by law (Barton, 2010, p. 342).

This is why our Constitution was designed to protect individual rights, and the Founders knew a republic would be the best form of government (Paul, 2011, p. 66). As Schweikart and Allen (2004) have observed, when the Constitutional Convention ended, a woman asked Benjamin Franklin what kind of government the nation had. His response was: "A Republic madam, if you can keep it" (p. 116). Article IV, section 4, of the Constitution guarantees that each State in the Union will have a Republican form of government. The Founders designed a "constitutional" republic, which is sometimes

referred to as a "federal" republic, or "democratic" republic (Skousen, 2007, p. 265). The system is based on the supreme will of the people, expressed in a written constitution, dividing power horizontally and vertically, and each level of government is assigned responsibilities which can be most economically and efficiently administered at that level (Skousen, 2000, p. 265). James Madison expressed this philosophy when he described the responsibility allocated to each level of government:

> The powers delegated by the proposed Constitution to the federal government are few and defined. Those which are to remain in the state governments are numerous and indefinite. The former will be exercised principally on external objects as war, peace, negotiation, and foreign commerce; with which last the power of taxation will, for the most part, be connected. The powers reserved to the several states will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and prosperity of the state. (Skousen, 2007, p. 176)

The Bill of Rights

The debate regarding the origin of freedom concluded with Jefferson's views on Natural Rights being victorious and it became firmly established in the Constitution and the Bill of Rights (Redpillvideo, 2010). Some of the Framers, including Jefferson, were fearful of an oppressive government without a Bill of Rights. In a letter to James Madison, Jefferson explained: "A bill of rights is what the people are entitled to against

every government on earth, general or particular, and what no just government should refuse or rest on interference" (1787/2009, pp. 356-357).

The states ultimately ratified the Bill of Rights in 1791 (Woods, 2004, p. 20). There are two unique features of the Bill of Rights. The first is that it is not a declaration of rights. Instead, it is a declaration of restrictions against the federal government. The second is the limitation on the federal government as the watchdog over the states' responsibility to protect the rights of the people (Skousen, 2007, p. 674). If an individual state was experiencing problems, the people were to correct it on the local and state level as opposed to relying on the federal government and courts (Skousen, 2007, p. 675). The real purpose of the Bill of Rights was manifest in the preamble, saying:

> The Conventions of a number of states, having at the time of their adopting the Constitution, expressed a desire, in order to prevent misconstruction or abuse of its powers, that further declaratory and restrictive clauses be added; and as extending the ground of public confidence in the government, will best insure the beneficent ends of its institution (Skousen, 2007, p. 675).

The Bill of Rights consists of the first ten amendments added to the Constitution. The framers intended these statements to be absolute limitations on the power of government. They should more accurately be known as the Bill of Limitations on government, to avoid the belief that natural rights emanated from the government (Schweikart & Allen, 2004, p. 126). The most unique of American rights is found in the Fourth Amendment (FreeTheNation, 2009). The Fourth Amendment acknowledges the right to be left alone

and prevents unreasonable searches and seizures (U.S. CONST., amend. IV). It is the Fourth Amendment that delineates our right of privacy.

One of the Founders' influences regarding illegal searches and seizure was Sir Mathew Hale, a seventeenth-century legal luminary. He was critical of the fact that warrants at that time failed to name the persons sought for crimes or the places to be searched for evidence of such. (Levy, 1999, pp. 80-81). Hale also called attention to the concept of probable cause, asserting that the person seeking a warrant should be examined judicially under oath and allowing the magistrate to determine whether the person had grounds for his suspicions (Levy, 1999, p. 81). Hale also explained that an officer who made an illegal search or arrest should be held accountable to a civil suit for false arrest (Levy, 1999, p. 81).

Another major influence of the development of search and seizure jurisprudence was Sir Edward Coke. Coke's belief was that a legal writ giving the government permission to conduct a legitimate search must be specific as to the persons and places (Levy, 1999, p. 80). When disagreeing with a law, one of the phrases Coke used was "against Common Right and Reason," a phrase of art symbolizing unconstitutionality. To say that a statue was "against reason" implied that it violated basic principles of legality (Davies, 1999, pp. 687-688). When James Otis argued that the statutory authority for general writs of assistance was unconstitutional, he realized the use of "against reason," and used it in 1761 during the Writs of Assistance Case when he denounced the general writ of assistance as a violation of American liberties and concluded that any statute that

authorized the use of a general writ would be so opposite to the common law principles that it would be "void" (Davies, 1999, pp. 689-690).

James Madison's initial submission for the Fourth Amendment consisted of the maximum protection conceivable. It read:

> The rights of the people to be secured in their persons, their houses, and their other property, from all unreasonable searches and seizures, shall not be violated by warrants issued without probable cause, supported by oath or affirmation, or not particularly describing the places to be searched, or the persons or things to be seized. (Levy, 1999, p. 98)

A House Committee of eleven, composed of one member from each state, made some adjustments to Madison's version, leading to a debate by the House acting as the Committee of the Whole. Eventually, the articles arranged by a special committee of three recommended the Fourth Amendment to the House (Levy, 1999, p. 99). The Fourth Amendment reads:

> The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated; and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized. (U.S. CONST., amend. IV).

The total provision was split into two parts. The first part fixed the right of the people and established the standard against unreasonable searches and seizures. The second part

required probable cause for a specific warrant to be issued (Levy, 1999, p. 99). It has been observed that the amendment reversed the Writs of Assistance Act, and specified that if the government had a target, someone from whom they wanted evidence, no matter how guilty was the target, no matter how widespread the belief in the guilt, in order for the government to enter one's house, confiscate papers or property, it must go before a neutral judge and present evidence under oath that it is more likely than not that the target possesses evidence of a crime (FreeTheNation, 2009).

It is important to understand that the Fourth Amendment acknowledges the right to privacy as constituting a natural right. By placing "[t]he right of the people" at the beginning of the amendment, it recognizes that people had this right before the government existed. Therefore, the government cannot violate a person's right to privacy unless it supports evidence based on probable cause that they have violated the Natural Law. While it is true the Framers could not have envisioned cell phones and the ability to track a person using cell towers and GPS, this should not disregard the intent of the Fourth Amendment. The original Constitution will never be obsolete because it is about supplying freedom from the abuse of power by those in the government. Social and economic conditions will change, but the Constitution was created to govern something that will never change, human nature. Perhaps no one articulated this principal better than Thomas Jefferson when he explained:

> On every question of construction let us carry ourselves back to the time when the Constitution was adopted, recollect the spirit manifested in the debates, and

> instead of trying what meaning can be squeezed out of the text, or invented against it, conform to the probable one which was passed. (Gutzman, 2007, p. 69)

The next chapter will focus on the legal development of the right to privacy. The discussion will show the evolution of legal rulings using landmark Supreme Court decisions beginning with early cases relying on a private property-public property distinction, followed by the modern emphasis on an individual's expectation of privacy. The discussion will also emphasize the use of technology such as beepers and GPS, and their relationship to the Fourth Amendment.

CHAPTER III

HISTORICAL LEGAL DEVELOPMENT OF THE RIGHT TO PRIVACY

Although the Fourth Amendment does not mention nor make reference to the word "privacy," the Supreme Court has recognized that an individual's Fourth Amendment protections do come into play when that person's "reasonable expectation of privacy" is intruded upon by the government (*Katz v. United States*, 1967). A "reasonable expectation of privacy" is an expectation that "society is prepared to recognize as reasonable" (*United States v. Jacobsen*, 1984, pp. 122-23). At the same time, a person cannot expect Fourth Amendment protection in situations where she knowingly exposes her activities to the public (Katz, 1967, p. 361)(Harlan, J., concurring). Although the Fourth Amendment itself does not textually mandate the inclusion of a "privacy" concept within the gamut of Fourth Amendment jurisprudence, it can be maintained that the written text points beyond itself to principles that are implicit in its form.

Prior to the Court recognizing "privacy" as part of Fourth Amendment jurisprudence (*Katz v. United States*, 1967), the pertinent determinations it had to make were whether or not an unreasonable search and seizure had taken place. These determinations actually involved answering, as a threshold inquiry, whether the government action was a "search," and if so, whether that action was reasonable (see Kerr, 2007, p.528). Both questions are textually engrained in the Fourth Amendment. In order to flesh out the privacy notion and its doctrinal limitations in relation to public

areas, which are crucial to an understanding of whether cell site location tracking constitutes a search, it is helpful to examine earlier case law that defined a "search" in reference to notions of property law and trespass. As a result, Fourth Amendment rights were coupled to property rights (Amar, 1994, p. 786). As will be seen, Fourth Amendment protections were rather constricted to controlling access and to preventing others from physically invading one's home or curtilage (*Olmstead v. United States*, 1928, pp. 466).

Pre-*Katz* Cases

It is odd to consider the fact that Fourth Amendment jurisprudence remained languid in any interpretive sense for so long a period of time after the enactment of the Amendment itself (Walsh, 2012, p. 176). Indeed, it was not until 1886 in the case of *Boyd v. United States* that the Court began to lay the basis for contemplating Fourth Amendment protections as extending beyond the home to include "persons, papers, and effects" (U.S. CONST. amend. IV). Briefly, the case involved a determination by the Court of the legality of a federal law allowing for the subpoenaing of a person's private papers in order to use the information as evidence against the individual. If the individual refused to produce the papers, under the law, such failure could be regarded as an admission by the defendant of the particular allegations. Significantly, the Court held that this constituted an unreasonable "search," notwithstanding the fact that there was no physically invasive search (*Boyd v. United States*, 1886, p. 622).

Important in the Court's lessening reliance on the method of the search, i.e., physical trespass, as the determinant of whether or not a search had been conducted, the *Boyd* Court introduced the notion of a person's "privacies of life" into the vocabulary of Fourth Amendment jurisprudence (*Boyd v. United States*, 1886, p. 630). As the Court called attention to, the essence of constitutional protections applies not only to the "sanctity of a man's home," but equally to "the privacies of life" (*Boyd*, p.630). Thus, for the first time, there was recognition that the Fourth Amendment, as written, could implicate wider conceptual principles of privacy.

Some forty years later the same conversation re-emerged in one of the first electronic surveillance cases. In *Olmstead v. United States* (1928), federal prohibition agents tapped several telephone lines running from the conspirators' residences and their main office, where orders for liquor were received by telephone (*Olmstead v. United States*, 1928, pp. 456-57). The residential taps were inserted in the streets near the residences, while the insertion of taps for the office were made in the basement of the office building in which the defendants had no property interest (*Olmstead*, p. 457). The monitoring was extensive, covering a period of nearly five months (*Olmstead*, p. 471). The Court held that the wiretapping was not in violation of the Fourth Amendment due to the fact that the government had intercepted conversations, not "persons," "houses," "papers" or "effects," which were expressly delineated in the Fourth Amendment (*Olmstead*, p. 464). The outcome may have been different had the tapping been accomplished through a physical intrusion into the defendants' property. Thus, since

there was no such encroachment, there was no constitutional violation (*Olmstead*, pp. 464, 466).

However, it was Justice Brandeis's farsighted and well-stated dissent, relying upon the language in *Boyd v. United States* (1886), decided some forty years earlier, that presaged modern Fourth Amendment privacy jurisprudence. Fearful of the constriction of individual privacy that he viewed as an inevitable result of advancements in surveillance technology, Brandeis viewed the intent of the Framers as "protect[ing] Americans in their beliefs, their thoughts, their emotions and their sensations": that the intent of the Framers was to confer, against the government, "the right to be let alone" (*Olmstead v. United States*, 1928, p. 478)(Brandeis, J., dissenting). Brandeis maintained that the government violates the Fourth Amendment whenever it unreasonably intrudes into privacy, regardless of the method employed. In his view, reliance on a trespass notion failed to protect individuals from methods that might not cross the threshold of physical trespass, but nevertheless might imperil the sanctity of "individual security" (*Olmstead*. 1928, p. 479).

Brandeis's prescient observations about time bringing into existence new conditions that will confront us all, such as advanced means of surveillance, underlies his argument that that the Constitution, to remain vital to the interests of citizens which it protects from abuses of power, must be capable of wider application by being able to contemplate not only of what has been "but of what may be" (*Olmstead v. United States*, 1928, p. 474)(Brandeis, J., dissenting).

Despite Justice Brandeis's ardent and emotive dissent, the trespass approach remained the dominant outlook of the Court for the next four decades, as demonstrated in two later opinions. In *Goldman v. United States* (1942), federal agents investigating three attorneys on suspicion of defrauding creditors in a bankruptcy action attached a listening device on an office wall adjoining the office of Goldman and were able to amplify the sound waves taking place from conversations inside the defendant's office (*Goldman*, 1942, pp. 131-32). Noting that the recording device did not physically intrude into a protected area, the Court held that no trespass had occurred and therefore no search had taken place for Fourth Amendment resolve (*Goldman*, 1942, pp. 134-36). The Court expressly refused to disturb the earlier holding in *Olmstead v. United States* (1928), stating that any reappraisal "would serve no good purpose" (*Goldman*, pp. 135-136).

Despite some misgivings by certain members of the Court (*Goldman*, 1942, p.136)(Stone, C.J., and Frankfurter, J., concurring), the *Olmstead* precedent continued to exercise its influence, thus averting any normative inquiry into the privacy issue. Twelve years later the Court took up another case of police eavesdropping through an adjoining wall. In *Silverman v. United States* (1961), the Court struck down use of a "spike mike," a microphone that police inserted a few inches into a wall coming to abate the ducting of the defendant's home (*Silverman*, 1961, pp. 506-507). The Court found, distinct from the facts in *Goldman*, that the actual physical intrusion constituted an unreasonable search into a constitutionally protected are (*Silverman*, p. 512). At the same time the Court,

while refusing to re-examine *Goldman*, declined "to go beyond it, by even a fraction of an inch" (*Silverman*, p. 512).

In concurring with the outcome, Justice Douglas's words were emphatic in tone where he questioned the reasoning of the majority as to why the invasion of privacy was not the same in both instances regarding the *Goldman* and *Silverman* facts (*Silverman*, 1961, pp. 513)(Douglas, J., concurring). His inquiry was specifically directed to the fact that in both cases it was "intimacies of the home" that were revealed (*Silverman*, 1961, pp. 513)(Douglas, J., concurring). Again, despite some concerns by other members of the Court, the notion that an individual harbored any privacy protections without reference to a place or property law remained beyond the Court's analytical vocabulary, thus presenting a formidable obstacle to any recognition of privacy protection in a public space. Such inimical jurisprudential approaches regarding Fourth Amendment protections stunted development of a coherent attempt to integrate the notion of privacy into the Fourth Amendment.

Katz: Reasonable Expectation of Privacy Approach

In 1967 the Supreme Court finally severed its sole reliance on the *Olmstead* and *Goldman* fixation on trespass and property law regarding what constituted constitutionally protected areas. *Katz v. United States* (1967) represented a weighty moment in Fourth Amendment jurisprudence, dramatically shifting the paradigm of Fourth Amendment protections from reliance upon notions of trespass to that of incorporating the analytical concept of privacy into the Fourth Amendment (*Katz*, p.

353). In rejecting an exclusive reliance on the formalist trespass doctrine, the Court initiated and brought to the fore a new focus and meaningful inquiry from "places" to "people" ((*Katz*, p. 353). In essence, Justice Brandeis's ardent dissent in *Olmstead* some 40 years earlier had finally prevailed.

In *Katz*, the Court once again was confronting technology of the time. In this instance, the defendant was convicted of transmitting wagering information across state lines by telephone *(Katz v. United States*, 1967, p. 348). At trial the Government introduced evidence of the defendant's part of a conversation that was recorded by agents who had attached an electronic recording and listening device to the outside of a public telephone booth (*Katz*, p. 348). In affirming his conviction, the Court of Appeals, looking to the precedent of *Olmstead* and *Goldman*, determined that no Fourth Amendment violation had taken place due to the fact "there was no physical entrance into the area occupied by [Katz]" (*Katz v. United States*, 1966, p. 134).

Upon accepting review, the Court first reframed the issues to be raised, discarding the trespass and property law basis for determining whether the government had a right to search and seize evidence. As the Court noted, "the premise that property interests control the right of the Government to search and seize has been discredited" (*Katz v. United States*, 1967, p. 353)(quoting *Warden v. Hayden*, 1967, p. 304). Instead, for the first time, the Court recognized that "the Fourth Amendment protects people, not places" (*Katz*, p. 351), and that the protections of the Fourth Amendment "cannot turn upon the presence or absence of a physical intrusion" into a particular area (*Katz*, p. 353). It is

apparent from the context of the Court's opinion that the Court was sensitive to the potentially intrusive effects inhering in advancing technology and the potential for police to access information without physical encroachment (*Katz*, pp. 352-53).

Ultimately, the Court held that government monitoring of Katz's telephone conversations from a public phone booth constituted a Fourth Amendment search. As the Court remarked, the government's actions in listening to the defendant's conversation "violated the privacy upon which he justifiably relied while using the telephone booth" (*Katz*, 1967, p. 353). The Court went on to note that any similarly situated person who had closed the door behind himself in order to place a call would surely be entitled to assume that their conversation was not being overheard (*Katz*, 1967, p. 352).

The Court's majority failed to promulgate any clear test for delineating exactly under what circumstances the Fourth Amendment would "protect people." Nevertheless, it has been Justice Harlan's concurring opinion in *Katz* that has since been regarded as providing the measuring stick regarding what constitutes a "reasonable expectation of privacy," the elements of which can be located in the Court's opinion (*Katz*, 1967, p. 361; see *Smith v. Maryland*, 1979, p.740). Under Harlan's formulation, there are two requirements that must be met in order to find that a person had a reasonable expectation of privacy: "First, that a person have exhibited an actual (subjective) expectation of privacy, and, second, that the expectation be one that society is prepared to recognize as 'reasonable'" (*Katz*, 1967, p. 361)(Harlan, J., concurring). To exemplify the elements of his application, Harlan observes that any conduct or words that a person knowingly

exposes to the public would not garner protection, even in the privacy of their home (*Katz*, 1967, p. 361)(Harlan, J., concurring). At the same time, what a person intends to keep as private, even in an area accessible to the public, may create for that individual a reasonable expectation of privacy, as was the case for Katz by his closing the door of the telephone booth (*Katz*, 1967, p. 361)(Harlan, J., concurring). Thus, after *Katz*, a determination of whether government actions constitute a "search" for Fourth Amendment purposes hinges on whether an individual subjectively exhibits an expectation of privacy that society deems reasonable (*United States v. Jones*, 2012, p. 950).

It is clear that the burden left for courts by Harlan's criteria is to examine and consider the place or the information intended to be protected and the actions taken by an individual to protect that place or information (Simmons, 202, p. 1312). As one commentator astutely observed a decade prior to the GPS tracking decision of *United States v. Jones* (2012), particularly the two concurring opinions, the critical factor in deciding *Katz* for Harlan was the action taken by the defendant to shield his conversation from being overheard—shutting the phone booth door behind him (Simmons, 202, p. 1312). What this means for the purpose of this endeavor is that courts will be tasked with looking beyond the particular method of surveillance used to the actions of the person being observed or to the information procured by such surveillance. In the end, applying the *Katz* test may very well come down to making reference to what expectations of privacy our society acknowledges and harbors as being "reasonable." The determination

of the contours of such reasonableness may very well be inextricably entwined with society's freedom from surveillance and the functioning of a free society. This undoubtedly will necessitate a calibration of the legitimate needs and goals of law enforcement in using a particular technology and the amount of privacy and freedom reserved for citizens consistent with the goals and ideals of a free and open society (Amsterdam, 1974, p. 403; *United States v. Place*, 1983, p. 703; Walsh, 2012, pp. 188-91).

Post-*Katz*: Beeper Tracking and Thermal Imagers

In order to understand how the reasonable expectation of privacy approach laid out in *Katz* applies to advanced technological surveillance methods, such as GPS and cell site location information tracking, it is necessary to examine some earlier cases involving beeper tracking devices and thermal imaging. Another line of cases also involving surveillance by technological means, but of a somewhat more restricted nature in regard to the level and quality of information revealed, are those involving the use of pen registers (*Smith v. Maryland*, 1979) and bank records (*United States v. Miller*, 1976), both of which were decided on assumption of risk grounds. An examination of these latter cases will be deferred until the next chapter.

The Court's first opportunity to address the issue of tracking devices occurred in the case of *United States v. Knotts* (1983). The Court considered whether enhancement of short-term, visual surveillance by use of an electronic beeper in order to monitor a chemical container that was being transported by vehicle to a cabin constituted a search

for Fourth Amendment purposes. The suspect was tracked both by visual surveillance at the outset and later by monitoring of the beeper signals due to his making "evasive maneuvers" (*Knotts*, 1983, p. 278). In fact, the beeper tracking became critical after visual surveillance was lost. With the assistance of remote monitoring, the beeper signal was once again picked up and resulted in agents uncovering a drug lab located at the defendant's cabin (*Knotts*, p. 278). The extent of the surveillance was limited to a daylong duration (*Knotts*, pp. 284-85).

The Court directed its focus to the question of whether the monitoring of the beeper signals, and thus the defendant's movements, intruded on any legitimate expectation of privacy as delineated in *Katz* (*United States v. Knotts*, 1983, p. 285). In holding that the monitoring did not encroach upon any "legitimate expectation of privacy" on the defendant's part (*Knotts*, p. 276), the Court noted that there exists a diminished privacy expectation when travelling in a vehicle over a public road, where it is exposed to plain view. As the Court observed, "[a] person travelling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another" (*Knotts*, p. 281). A person, in essence, "voluntarily conveys" his movement and location to any and all observation by others who might be present, including law enforcement (*Knotts*, p. 281-82). The Court also called attention to the fact that enhancing the visual surveillance does not implicate the Fourth Amendment as long as the underlying surveillance does not (*Knotts*, p. 282). Since law enforcement had a legal right to be observing from a public vantage point of the highway, simply enhancing

such view raises no constitutional concern. At the same time, there is some precedent indicating that such travel does not forego all privacy expectations (*Delaware v. Prouse*, 1979, p. 662; see McAdams, 1985).

One point raised in the case by the defendant will be of some importance in a later consideration and analysis of the implications of *United States v. Jones* (2012) regarding long-term, continuous monitoring of CSLI by law enforcement. The defendant raised the specter of "twenty-four hour surveillance of any citizen" as a possibility, taking place "without judicial knowledge or supervision (*United States v. Knotts*, 1983, p. 283). In responding, Justice Rehnquist noted that the amount of such beeper tracking hardly suggested abuse (*Knotts*, pp. 283-84). Nevertheless, he did go on to comment that, "if such dragnet-type law enforcement practices… should eventually occur, there will be time enough to determine whether different constitutional principles may be applicable" (*Knotts*, p. 284).

It is apparent that the Court adopted a "wait and see" attitude by reserving the issue for future consideration. It is interesting to point out that the Court was not referring to "mass surveillance," as such. Rather, it contemplated the potential reality of "twenty-four hour" monitoring of "any citizen" (*Knott*, p. 283). It can be argued that the Court was dealing with short-term, real-time tracking in *Knotts*, not the much broader issue of continuous monitoring of a person's movements or location without regard to time or space boundaries. As will be maintained, the issue of whether CSLI tracking constitutes a search is not forestalled by the holding in *Knotts*; indeed, the continuous,

long-term nature of such surveillance is precisely that which it reserved (see *United States v. Maynard*, 615 F.3d p. 556).

In another beeper case, *United States v. Karo* (1984), the court nevertheless did recognize that under certain circumstances the particular location information revealed by the tracking device could intrude upon Fourth Amendment protections due to the fact that such information was "not open to visual surveillance" (*Karo*, 1984, p. 714). Similar to the facts in *Knotts*, drug enforcement agents attached a beeper to a can of ether and subsequently monitored it as it was being transported by vehicle, ultimately tracing its movement within a private home (*Karo*, p. 714). Applying the criterion of *Katz*, the Court called attention to the fact that a private home is a place where a person normally expects to be free from unjustified intrusions by the government, and such an expectation is readily one that society deems justifiable (*Karo*, p. 714). Addressing the question left unanswered by *Knotts*, the Court observed that when monitoring a tracking device reveals details emanating from the inside of a private home, a protected zone, and which could not have been gotten through visual observation, such tracking constitutes a violation of a person's reasonable expectation of privacy (*Karo*, p. 714).

While *Knotts* clearly delineated between inside and outside in terms of defining a constitutional right of privacy relative to space, holding that anything which could have been observed from a legal vantage point was exposed to the public, thus "outside," and no longer regarded as private (*Knotts*, 1983, pp. 281-82), the Court was later confronted with a more enhanced form of surveillance technology, thermal imaging. In *Kyllo v.*

United States (2001), the government utilized a thermal imager to scan the defendant's house from a car located across the street. Suspected of growing marijuana inside his home, the device was used to detect the presence of high-intensity lamps used for such growing, which radiated a relatively high level of heat that was displayed as infrared radiation on the imager. This information formed the basis for securing a search warrant, upon which marijuana was subsequently seized (*Kyllo v. United States*, 2001, pp. 27, 29-30).

The government premised its argument upon the notion that the heat emitted from the house was effectively "exposed" to the public (Slobogin, 2007, p. 51). In effect, such a contention would allow a traditionally private space of a person's home to be stripped of any Fourth Amendment protection due to advanced technology "sensing" information from inside the home that would not have otherwise been observable by the public with the naked eye, absent "a physical intrusion into a constitutionally protected" zone (*Kyllo v. United States*, 2001, p. 34)(quoting *Silverman v. United States*, 1961, p. 512). In response to the critical issue raised by the facts in *Kyllo*, that technology poses a threat to privacy by constricting the boundary between public and private in an extreme respect, the Court held that using the imager device under the facts constituted a search and required a warrant (*Kyllo*, 2001, p. 27).

In applying a results-based test for sense-enhancing technologies, alongside a methods-based caveat to that test (Simmons, 2002, p.1320), the Court affirmed the fact that the interior of a person's home is normatively distinct from the exterior, the latter

being potentially subject to public view. As in *Katz*, the defendant had a reasonable expectation of privacy in his own home and, "reversing that approach would leave the homeowner at the mercy of advancing technology" (*Kyllo v. United States*, 2001, p. 35). Just as Katz had shut the telephone door behind him to keep from being overheard, Kyllo used his home's walls to cloak from others the temperature of its rooms (Harper, 2008, p. 1397). Allowing technology to pierce the interior of the home would reduce an individual's right to separate themselves from public eyes or government scrutiny, eroding the privacy value of the home as a consequence of technological surveillance capabilities (Walsh, 2012, p. 203).

At the same time, the Court included a somewhat cryptic, unexplained methods-based caveat to its sense-enhancing prohibition on collecting information regarding the interior of the home that otherwise could not have been obtained without a physical intrusion, that the particular technology not be "in general public use" (*Kyllo*, 2001, p. 28). As one legal commentator has remarked, the Court's inclusion of such an exception appeared to "drill [] a technological hole into the walls" of a person's home (Walsh, 2012, p. 202). It could certainly pose problems where advanced surveillance technologies, such as location tracking devices, become more ubiquitous and widely used by the public. The *Kyllo* Court's opinion certainly is sensitive to the notion that advanced technology holds the negative potential of altering the public, or collective, notion of what constitutes a reasonable expectation of privacy. The decision may very well portend some significance in determining the scope of Fourth Amendment protections

regarding cell site location tracking in suggesting that a constitutional analysis of such tracking not assume methodically and systematically that all information beyond physical boundaries is "public" in nature (Blitz, p. 1363). Ultimately, the *Katz* analytical framework will focus future judicial inquiry beyond the technological means of surveillance utilized to the issue of what type and quality of information is revealed, and whether the individual exhibited an expectation of privacy in such information that society recognizes as reasonable (*Katz v. United States*, 1967, p. 361). Indeed, perhaps the ultimate test will reside in the fact that the means of surveillance changes society's expectations of privacy to such a degree that the technology in question is regarded as "public" (Simmons, 2002, p. 1334).

The next chapter examines federal court decisions that illustrate the rather contentious debate taking place among judges over the issue of whether cell site location tracking by police requires a warrant based on probable cause or can be carried out on some lesser standard of proof. It will also review the third- party doctrine assumption of risk doctrine, which has buttressed the government's argument that location tracking does not require a probable cause warrant.

CHAPTER IV

CURRENT FEDERAL RULINGS

Cell phone tracking has become a routine method to monitor a person's movements regardless of how much it intrudes on the individual's privacy (Samuel, 2008, p. 1325). The Constitution does not particulary mention the word "privacy," the most reasonable likelihood for that omission is because in the eighteenth-century, the word "privacy" was equated to the meaning for bathroom. However, the Founders employed the term "security," which is basically the same understanding we have of the word "privacy." It also is important to understand that the Constitution does not authorize the government to monitor people throughout their daily lives; therefore, the people possess the unalienable right of privacy (Napolitano, 2011, p. 88). Unfortunately, federal district court judges as well as magistrate judges, who swear an oath to uphold the Constitution, are divided on the correct requirments to be met by the government before it can employ cell phone tracking (Samuel, 2008, pp. 1325-26).

The fact that people are being tracked via their cell phone is not a new concept. As Watson and Watson (2011) have noted, since October 2001, the Federal Communication Commission has required that all service providers be able to track the location of their users inside 50 feet. The increased demands for cell phone information without a search warrant has ranged from police at the state level up to federal government levels (Nimmo, 2012). At the same time, federal appellate courts have yet to provide a clear direction as to what is required of law enforcement before they gather location information from cell phones (Freiwald, 2011, p. 681). The current dispute

among judges centers on whether or not cell phone tracking constitutes a search, which would require a warrant based on probable cause.

Another issue that has been presented by the government as a justification for not necessitating warrants for monitoring cell site location information is the third-party doctrine, or assumption of risk. Under this method, the government argues that location tracking does not constitute a search. To gain a better understanding of the confusion surrounding the doctrine and its applicability or lack thereof to location information, it is important to discuss the origins of the dispute.

The available electronic surveillance devices under federal law are divided into four separate categories, with a particular level of proof being required by the government (Harkins, 2011, p. 1886; Samuel, 2008, pp. 1330- 32). The lowest burden of proof deals with pen registers and trap and trace devices, which requires that the information gathered, "is relevant to an ongoing criminal investigation" (18 U.S.C. §3122(b)(2) (2006)). A slightly higher standard mandates that the government must provide, "specific and articulable facts showing that there are reasonable grounds to believe that the…records or other information sought, are relevant and material to an ongoing criminal investigation" (18 U.S.C. § 2703(d)). This standard involves the revealing of stored communications or account records (Harkins, 2011, p. 1886). The third level of proof concerns itself with information gathered by a "search" or "seizure," which requires the government to obtain a warrant based on probable cause (U.S. CONST. amend. IV). Finally, the highest standard involves content-capturing wiretaps,

which are to be employed only in situations where the government has fulfilled expectations greater than probable cause (Harkins, 2011, p. 1886).

In 2005, the Eastern District of New York became the first federal court to require a warrant be used for real-time cell phone tracking (*In re Application of the United States*: E.D.N.Y., 2005)(hereinafter *Orenstein Opinion*: E.D.N.Y., 2005). During a criminal investigaion, the government wanted to learn about the suspect's geographic location on a real-time basis. Agents requested a pen register in order to obtain the cell-site location information (Davis, 2012, p. 859). While admitting to previously allowing several of these orders, Judge Orenstein arrived at the decision that the orders were illegal without satisfying a probable cause standard (*Orenstein Opinion*: E.D.N.Y., 2005, p. 327). Within a short period of time, Judge Smith of the Southern District of Texas came to the same conclusion but on different grounds (*In re Application for Pen Register and Trap/Trace Device with Cell Site Location Authority*: S.D. Texas, 2005)(hereinafter *Smith Opinion I*: S.D. Texas, 2005). Judge Smith chose the probable cause standard as a method to avoid a possible disagreement regarding the Fourth Amendment (Harkins, 2011, p. 1904).

Following the *Smith* opinion, Judge Gorenstein of the Southern District of New York released an opinion claiming that the court orders without meeting the probable cause standard were nevertheless lawful (*In re Application of the United States:* S.D.N.Y. 2005)(hereinafter *Gorenstein Opinion*: S.D.N.Y. 2005). Other magistrates began publishing opinions agreeing with Judge Gorenstein, which has resulted in a "live

statutory disagreement amongst judges regarding an enormously important tool used in police investigations" (Samuel, 2008, p. 1329).

As of this writing, the only Circuit Court ruling on the issue has been that of the Third Circuit Court of Appeals in 2010, and it serves as the most significant ruling to date in recognizing the power of federal magistrates to require probable cause be shown by the government in requests for cell site location information from service providers (*In re Application of the United States*: 3rd Circuit, 2010)(hereinafter *Third Circuit Opinion*, 2010). Prior to the ruling, the U.S. District Court for the Western District of Pennsylvania refused to grant an application when the government, in accordance with the Stored Communications Act, applied for a court order forcing an unknown cell phone provider to generate a customer's historical cellular tower data (Davis, 2012, p. 860). When the United States appealed, the Third Circuit Court concluded that, "the SCA does not contain any language that requires the Government to show probable cause as a predicate for a court order under § 2730(d)" (*Third Circuit Opinion*, 2010, p. 315). The Court based the decision on the fact that because the cell-site location data was obtained from a third-party provider, the government had a smaller burden to establish than probable cause (*In re Elec. Commc'n Service to Disclose,* 2010, p. 309). At the same time, however, the Court went on to explain that the SCA serves two purposes: (1) to supply protection for private citizens from increasingly aggressive electronic surveillance; and (2), to make that technology obtainable to the government for legitimate law enforcement intentions (*Third Circuit Opinion*, 2010, p. 313). Importantly, the Court went on to say

that the SCA, "as presently written gives the reviewing judge the option to require a warrant showing probable cause" (*Third Circuit Opinion*, 2010, p. 319). However, the government continues to make the argument that retrieving information via a third-party based on *United States v. Miller* (1976), or a "non-contents" rule found in *Smith v. Maryland* (1979), does not constitute a search.

In *Smith v. Maryland* (1979) the Supreme Court ruled that the employment of pen registers was not a search under the Fourth Amendment; therefore, the Fourth Amendment would not be applicable to their use (*Smith*, 1979, pp. 745-46). All this meant was that police collecting a list of dialed numbers did not constitute a search (Samuel, 2008, p. 1340). The difference between *Smith* and the current discussion is that the dialed numbers in *Smith* did not reveal mobile tracking information (Samuel, 2008, p. 1340). Justice Blackmun explained that *Smith* did not have, "a legitimate expectation of privacy regarding the numbers he dialed on his phone" (*Smith*, pp. 742, 745-46). While phone companies have records of numbers dialed, cell phone bills do not include information the police can use to discover a person's movements (Samuel, 2008, p. 1341). All *Smith* decided was that a person has no reasonable expectation of privacy in phone numbers dialed, but it fails to evaluate an expectation of privacy in the location of a person's phone, or the location of the individual (Samuel, 2008, p. 1342).

Another issue raised by the government is the third-party doctrine, which is the belief that individuals possess no legitimate expectation of privacy in information voluntarily conveyed to third parties (*Smith v. Maryland*, 1979, pp.743-44). The

government may argue that because a person voluntarily conveys their location to the cell phone provider there can be no expectation of privacy regarding that information; therefore, the Fourth Amendment does not apply (Samuel, 2008, p. 1342).

The most famous third-party case decided by the Court was *United States v. Miller* (1976), where it was ruled that a bank customer conducting a banking transaction retains no legitimate expectation of privacy regarding information "voluntarily conveyed to…banks and exposed to their employees in the ordinary course of business" (*United States v. Miller*, 1976, p. 442). The Court went on to explain:

> The depositor takes the risk, in revealing his affairs to another, that the information will be conveyed by that person to the Government. This Court has held repeatedly that the Fourth Amendment does not prohibit the obtaining of information revealed to a third party and conveyed by him to Government authorities, even if the information is revealed on the assumption that it will be used only for a limited purpose and the confidence placed in the third party will not be betrayed. (*United States v. Miller*, 1976, p. 443)

The problem with this argument in relation to records of cell-site tracking is that the government is requesting information for all available records tracking the phone's incessant location and movement (*In re Application of U.S. for Historical Cell Site Data*: S.D. Tex., 2010)(hereinafter *Smith Opinion II*: S.D. Texas, 2010). Therefore, unlike *Smith* and *Miller*, it is probable that a cell phone user has no reason to suspect their

location was exposed and "the government has cited no case (and the court has found none) where unknowing, inadvertent disclosure of information by a defendant thereby precluded Fourth Amendment protection of that information" (*Smith Opinion II*: S.D. Tex. 2010, p. 844).

Another point of view to consider is the concept of property. It is important to understand that the word property does not always imply a home or land, but they are certainly types of property. Most importantly, every individual's natural rights are their property: such as one's body, one's thoughts, etc. Therefore, one has the right to use their property as they see fit, which includes the right to exclude the government (Napolitano, 2011, pp. 23-24). As discussed earlier, the right to be secure, or the right to privacy, is a natural right, possessed by all people. A cell phone can be thought of as an individual's property and it should be protected under the Fourth Amendment, because it falls in the categories of "…persons, houses, papers, and effects" (U.S. CONST. amend. IV).

If the Fourth Amendment only were put in place for individuals to be secure in their home, there would be no need to mention "persons", "papers," and "effects." Your person is your body and you take your body wherever you go. Cell phones are generally carried on your belt, in your pocket, or in a woman's purse. As Judge Smith has observed, when the government uses cell site technology to track an individual, it is extremely revealing because the phone is carried on the person (*Smith Opinion II*: S.D. Tex., 2010, p. 840). At the same time, since the phone is on the person, the location will be recorded when a person moves indoors where privacy protection is at its utmost

(*Smith Opinion II*: S.D. Tex., 2010, p. 840). This scenario is even more frightening due to the fact that network-based technology is able to isolate, "a mobile phone user to a particular floor or room within a building" (*Smith Opinion II*: S.D. Tex. 2010, p. 837). Cell phones also contain text messages and emails, which can be thought of as papers under the Fourth Amendment. The phone also falls under the category of an effect, just like an automobile, where it was recognized as such in *U.S. v. Jones* (2012).

As Davis (2012) observes, when tracking a person via their cell phone, the movements become extremely unforeseeable due to the fact that the individual will take the phone into constitutionally protected areas (pp. 866-867). It is impossible for the government to know every destination a person may go throughout their daily lives. This is why cell phone tracking is not the same as following a person in a motor vehicle. Cell phones will not always be on a public road or in the eyes of the public (Davis, 2012, p. 866; Samuel, 2008, p. 1344). Paul (2011) explains that nothing good can come from the government monitoring our every move (p. 279). Even if a person is not guilty of anything, or uses the argument that, "I have nothing to hide," does not mean it is acceptable to have one's daily life analyzed. A person does not lock their doors at their home because they have something to hide; they lock them to remain safe. It has been observed that a person's privacy gives them independence, provides anonymity, facilitates freedom of action, and thus freedom itself. Therefore, privacy is a form of power: if someone takes away one's privacy, they will take away one's freedom (ThinkFeelExist, 2011).

Consider the scenario of a young white male from a divorced family, who frequently travels to visit his father. The father resides in a home he bought 20 years ago. At the time, the neighborhood was considered a desirable location. However, the times have changed and the neighborhood contains primarily those of lower incomes. Robberies and drug sales are common in the area, causing law enforcement to frequently patrol throughout it. One night when the young man drives through the neighborhood, the law enforcement on duty spot his vehicle. The automobile is a nice truck, just a few years old. The cops notice the truck stands out in this particular neighborhood and that the young man driving is Caucasian, very uncommon in that section of town. Taking note that the individual stands out, the officers get suspicious that he is probably in the area to purchase drugs. They convince a judge they have relevant information about a possible ongoing investigation. After all, it is well known that drug sales are made in this neighborhood and the young man certainly does not fit the profile of someone who resides in the area. Based on this information, law enforcement is able to track his every move, along with learning pieces about his life. All of this because the young man frequently visits his father.

This scenario represents how an individual's freedom of travel, freedom of association, and right to privacy can be violated by what is known as the "Mosaic" theory. The next chapter focuses on this theory, which was originally mentioned by the government and then brought up by various Justices endorsing the theory in the cases of *U.S. v. Maynard* (2010) and *U.S. v. Jones* (2012).

CHAPTER V

MAYNARD/JONES AND THE RISE OF THE "MOSAIC" THEORY IN FOURTH AMENDMENT LAW

Despite the ongoing debate in the federal courts as to whether a search warrant based on probable cause, or orders based on lesser standards of proof, are necessary to compel service providers to supply the government with location information, a new conceptual avenue of approaching Fourth Amendment privacy rights in the area of advanced surveillance technologies may be emerging.

The "mosaic theory" is not a recently developed theory, having been raised by the government to thwart requests under the Freedom of Information Act in a number of cases where the Supreme Court upheld its use by prohibiting the disclosure of "collective" information (*CIA v. Sims*, 1985; Pozen, 2005, p. 630). At the same time, its utilization in a Fourth Amendment framework in relation to privacy issues is somewhat unique and newly-minted, having first been applied in the state court GPS tracking case of *People v. Weaver* (2009), where the court found that the continuous monitoring of the defendant over 65 days using a GPS device produced a "highly detailed profile," not only where the defendant travelled, but also by easy inference, his "associations—political, religious, amicable and amorous" (p. 1199). Recognizing the much more sophisticated and powerful nature of the tracking technology used than the "very primitive tracking device" employed in the *Knotts* case, the court poignantly observed: "[t]hat such a surrogate technological deployment is not …compatible with any reasonable notion of

personal privacy or ordered liberty would appear obvious" (p. 1199). As reflected in its opinion, the court feels there exists an expectation of privacy beyond the walls of one's home that is consistent with societal views, at least in respect to the quality and quantity of information that can be accumulated by advanced surveillance technologies, and is deserving of Fourth Amendment protection (pp. 1199-1200).

The *Weaver* court's calling attention to the "collective" nature of information that can easily be accumulated by the government portends a new road for escaping from the quagmire of Fourth Amendment jurisprudence as it confronts ever-advancing surveillance technologies (Dennis, 2011; Ford, 2011; Freiwald, 2011, pp. 731-45). Just as the government seeks to keep private critically valuable collective information it accumulates, so too should an individual be able to assert the mosaic theory in protecting their fundamental right to privacy from continuous monitoring revealing an intimate picture of their life (*People v. Weaver*, 2009, p. 1199; *U.S. v. Maynard*, 2010, p. 562).

The Supreme Court's rather lackluster record on Fourth Amendment privacy issues is perhaps the consequence of its failure to jurisprudentially recognize a notion of privacy in a constitutional context that could legally insulate an individual in a public space (*California v. Ciraolo*, 1986; *Florida v. Riley*, 1986; *U.S. v. Garcia*, 2007; *U.S. v. Knotts*, 1983; *U.S. v. Pineda-Moreno*, 2010). It is the mosaic approach that was utilized and applied in the GPS tracking case of *U.S. v. Maynard* (2010) and, while not controlling in the decision, in the more recently re-styled case of *U.S. v. Jones* (2012), where a majority of the justices adopted its normative assumptions and analytical

structure (Walsh, 2012, p. 174). The two opinions harbor significant potential for pressing a doctrinal shift in the way Fourth Amendment jurisprudence views an individual's privacy expectation in their continuous and prolonged movements in public space in the face of advancing surveillance technology.

A more complete explication and application of the mosaic theory occurred in the D.C. Circuit Court of Appeals case of *U.S. v. Maynard* (2010), where a majority of the justices adopted its normative assumptions and analytical structure (Walsh, 2012, p. 174). The two opinions harbor significant potential for pressing a doctrinal shift in the way Fourth Amendment jurisprudence views an individual's privacy expectation in their continuous and prolonged movements in public space in the face of advancing surveillance technology.

United States v. Maynard: Unearthing the "Mosaic" Theory

A more complete explication and application of the mosaic theory occurred in the D.C. Circuit Court of Appeals case of *U.S. v. Maynard* (2010), where the court embraced the aggregation principle that the government had put forth to justify its refusal to reveal information and documents requested pursuant to the Freedom of Information Act on the ground that it constituted a danger to national security concerns (*Maynard*, 2010, p. 562; see *CIA v. Sims*, 1985). The government's argument was based on the notion that discrete pieces of seemingly innocuous data can be related to and placed in the context of other isolated pieces of information to reveal a more holistic mosaic, exponentially

amplifying each piece's informational value by the mosaic picture it constructs, much like a completed jigsaw puzzle (*Halperin v. CIA*, 1980, p.150).

In 2004, a joint federal and state drug task force began investigating Antoine Jones, Lawrence Maynard and other suspected co-conspirators engaged in cocaine distribution (*Maynard*, p. 549). Agents employed a variety of investigative techniques, including phone taps, visual surveillance, and cell site location information tracking, which was not introduced as evidence at trial. It was not until agents attached a GPS device on Jones' Jeep without a valid warrant and continuously monitored his location information twenty-four hours a day over 28 days that they were able to implicate his involvement in the conspiracy (*Maynard*, p. 555).

Jones' objection to the introduction of the GPS evidence was overruled on the basis that it did not constitute a search due to the fact it did not reveal anything more than he had knowingly exposed to the public by being on the highway, as per the *U.S. v. Knotts* (1983) decision. Jones was convicted in part as a result of the GPS data, which evidenced a crucial link between him and his co-conspirators. On appeal, Maynard's conviction was affirmed, however, the U.S. Court of Appeals for the D.C. Circuit reversed Jones' conviction on the basis that the long-term, continuous monitoring of Jones by the GPS tracking device over a 28-day period constituted a Fourth Amendment "search." (*U.S. v. Maynard*, 2010, pp. 556-57).

The court's analysis was divided into separate questions in order to resolve the overriding issue as to whether the sustained monitoring constituted a search. The first

inquiry it confronted was whether the *Knotts* holding controlled (*U.S. v. Maynard*, 2010, p. 556). Judge Ginsburg, writing for the panel, maintained that *Knotts* was not controlling under the facts (*Maynard*, 2010, p. 558). The court pointed out that *Knotts* involved short-term surveillance of the defendant over the course of a single trip of approximately 100 miles (*Maynard*, p. 556)(citing *U.S. v. Knotts*, 1983, pp. 277-78). In comparison, Judge Ginsburg noted that the scale of surveillance in *Maynard* brought to the fore the very issue explicitly reserved by the *Knotts* Court, that being whether "dragnet-type law enforcement practices" might implicate "different constitutional principles" than those raised by the tracking of an individual on single journey (*Maynard*, pp. 556-57)(citing *U.S. v. Knotts*, 1983, pp. 283-84).

While recognizing that individuals have no reasonable expectation of privacy in discrete, short-term travels "from one place to another "on public roadways, which could easily be subject to visual surveillance by police, the *Maynard* Court acknowledged that continuous, prolonged monitoring of an individual's travels by GPS tracking did raise Fourth Amendment issues and that the subject of such surveillance would not necessarily be shorn of a reasonable expectation of privacy in their public travels "whatsoever, world without end" (*Maynard*, p. 557).

Freed from the doctrinal limitations of *Knotts*, Judge Ginsburg next directed his inquiry to whether the defendant had in either an actual or constructive sense exposed his actions to the public, and to whether an expectation of privacy on his part was reasonable (*U.S. v. Maynard*, 2010, p. 558). Indeed, as one legal scholar has succinctly noted, a

governmental intrusion only constitutes a "search" for Fourth Amendment purposes if it infringes on a person's reasonable expectation of privacy (Kerr, 2007, pp. 507-08). In order to answer such questions the court referred to *Katz* (1967), observing that: "Whether an expectation of privacy is reasonable depends in large part upon whether that expectation relates to information that has been 'expose[d] to the public'" (*Maynard*, p. 558)(quoting *Katz v. U.S.*, 1967, p.351). To answer the question of whether the data collected from the GPS tracking was exposed to the public, Judge Ginsburg analytically bifurcated the inquiry into whether someone's conduct had "actually" or "constructively" been exposed to the public (*Maynard*, p. 560-61).

The government's argument posited that Jones' travels were exposed publically on roads and could have been visually tracked by agents over the course of 28 days (*Maynard*, 2010, p. 559). Such a supposition relies on the "potential" (Walsh, 2012, p. 218) or "probability" (Kerr, 2008, pp. 508-11) of law enforcement being able to carry out sustained, traditional visual surveillance in determining "actual exposure." The court's response turned on the distinction between short-term and long-term and to whether observation by the public was an "actual likelihood," as opposed to something potentially possible (*Maynard*, p. 560). In essence, the issue of whether to grant a reasonable expectation of privacy in public space hinged upon what a reasonable person expected another individual "might actually do" (*Maynard*, p. 559).

Judge Ginsburg referenced several Supreme Court cases in fleshing out the logic of what a reasonable person would expect other individuals "might actually do" *(U.S. v.*

Maynard, 2010, pp. 559-60). One case involved a bus passenger who had placed a bag in his overhead storage rack. During a bus stop, police boarded the bus and proceeded to press and squeeze items of luggage with the intent of uncovering drugs, which they ultimately did find in the defendant's bag (*Bond v. U.S.*, 2000, p. 335; see *Maynard*, pp. 559-60). In holding that the manipulation of the bag constituted an unwarranted search, the Court pointed to the fact that people do not expect others to handle their personal items with the expectation of finding out what the item contains.

Extending the reasoning of what another is reasonably likely to do to the facts in *Maynard*, Justice Ginsburg determined that even though discrete, isolated pieces of GPS data would be exposed to public view, the entirety of a person's movements over a 28-day period, taken as a collective whole would not be so exposed due to the fact that it was extremely remote that another person was likely to observe the sum of such movements (*Maynard*, p. 558). Certainly parts of one's travels on a particular day may be observed by others, but as Justice Ginsburg pointed out:

> 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." (*U.S. v. Maynard*, 2010, p. 563)

Thus, due to the fact that it was highly unlikely that the public could have observed the sum of the defendant's movements, the court determined that those movements could not be described as having been "actually exposed" to the public's view (*Maynard*, p. 562).

Perhaps the most significant aspect of Ginsburg's treatment of privacy in public space is in his usurpation and utilization of what had theretofore been used by the government as a prophylactic against divulging "private" information—the mosaic theory. His adaptation of the theory to Fourth Amendment jurisprudence allowed the court to shift attention to the quantity and quality of the information acquired by the government, rather than the defendant's discrete, isolated movements (*Maynard v. U.S.*, 2010, p. 562). In a rather imaginative analytical application of this theoretical approach to the issue of privacy in public space, Judge Ginsburg maintained that even if a person's discrete, isolated movements were "constructively exposed" to the public—that is, exposed regardless of having actually been seen—the aggregation of information collected over a 28-day surveillance period was not constructively exposed due to the fact that the nature of the information was qualitatively different and more revealing than its disparate parts (*Maynard*, pp. 561-62). In essence,"[t]he difference is not one of degree, but of kind" (*Maynard*, p. 562), revealing "an intimate picture of [one's] life" *Maynard*, p. 562). Pieces of information data might seem innocuous in themselves, isolated from one another. However, assembled together into a mosaic they assume a qualitatively different and more revealing character than the disparate facts that make up the whole.

Judge Ginsburg's incisive adoption and application of the mosaic theory in Fourth Amendment jurisprudence may well prove the springboard for a new analytical approach to privacy in public space, potentially accommodating constitutionally protected expectations of privacy that are not confined to the home, but are limited only by a person's own reasonable expectation of privacy (*Maynard*, 2010, p. 563). Finding that the continuous and sustained surveillance by GPS tracking exposed an intimate picture of Jones' life that was reasonable for him to keep private, the *Maynard* Court overturned Jones' conviction.

United States v. Jones: Endorsement of the Mosaic Theory

Upon appeal, the Supreme Court unanimously, although split on the rationale, agreed with the D. C. Circuit's holding that Jones' Fourth Amendment rights had been violated, but did so on a much narrower basis than did the *Maynard* court (*U.S. v. Jones*, 2012, p. 948). The majority opinion, written by Justice Scalia, held that the attachment of the GPS tracking device to Jones' vehicle for the purpose of monitoring him constituted a search when the government trespassed upon the vehicle, which itself is protected by the Fourth Amendment as an "effect" (*Jones*, p. 949). As a consequence of the predicate trespass, Justice Scalia found no need to apply the *Katz* formulation in resolving the case, instead viewing the expectation of privacy test as supplementary to the common-law trespass test (*Jones*, p. 952). Having avoided the issue of applying the analytical framework of *Katz*, the majority deferred for another day the issue of whether long-term, continuous surveillance constitutes a search, as the *Maynard* court had found by

employing the mosaic theory. As Justice Scalia wryly observed, the Court might have to deal with problematic issues in the future with a search case involving no trespass and have to employ the *Katz* test: " but there is no reason for rushing forward to resolve them here" (*Jones*, p. 954).

Five justices were, however, were willing to forge ahead on the same analytical tracks as Judge Ginsburg laid down in *Maynard*. Justice Alito's concurring opinion, joined by three other justices, focuses on the issue that he that feels must be addressed, which is "whether is the use of GPS tracking in a particular case involved a degree of intrusion that a reasonable person would not have anticipated" (*U.S. v. Jones* , 2012, p. 964)(Alito, J., concurring). His fear is that applying a trespass rule might allow for advanced technology to monitor an individual without any technical trespass and allow the surveillance to continue for an indefinite period of time absent judicial oversight and review, which would contravene the public's reasonable privacy expectations. The public, in Justice Alito's opinion, does not expect their every movement to be secretly monitored over a long period of time, such as the 28 days in Jones' case (*Jones*, 2012, p. 964)(Alito, J., concurring). Under Alito's analytical structure there is a distinction between "relatively short-term monitoring of a person's movements" in public and long-term, continuous surveillance like that in *Jones*, the latter being a search while the former might be (Jones, 2012, p. 964)(Alito, J., concurring). The basis of the distinction resonates from the *Katz* decision itself: what would society regard as a reasonable expectation of privacy?

Justice Alito's short-term/long-term demarcation line in respect to monitoring reflects a time component that is so central to the mosaic approach. The longer and more continuous the monitoring is, the more probable and likely that a larger number of discrete, isolated data points can be associated and interrelated into a collective mosaic; in relation to privacy, "the whole may be more revealing than the parts" (Maynard, 2010, p. 561). The end result of advanced surveillance technologies is that they allow information collection proficiency of a qualitatively different character: unanticipated, subject to being abused, and perhaps, inimical to society's notions of what constitutes a free society.

A fifth justice echoing a mosaic sentiment was Justice Sotomayor, who wrote a separate concurring opinion. Initially, she agrees with the majority opinion that held a search had taken place, pursuant to the Fourth Amendment, where the government had physically encroached on a constitutionally protected area, Jones' vehicle, without a valid warrant and without Jones' consent (*U.S. v. Jones*, 2012, p. 954)(Sotomayor, J., concurring). However, after supporting the trespass principle as a sufficient basis for deciding the case, describing it as an "irreducible constitutional minimum" (*Jones*, p. 954-55)(Sotomayor, J., concurring), she goes on to explicate perhaps the most unrestrained and far-reaching notion of privacy of all the justices.

Justice Sotomayor not only subscribes to Justice Alito's position that long-term surveillance encroaches on expectations of privacy, but re-shapes that viewpoint by including short-term monitoring as perhaps requiring more focused attention in instances

where advanced technology means are employed that generate more precise and comprehensive records of an individual's movements, evidencing "a wealth of detail about her familial, political, professional, religious, and sexual associations" (*Jones*, p. 955)(Sotomayor, J., concurring). Such technology is also inexpensive compared to traditional surveillance methods and, inherently is cloaked in its application, evading judicial oversight that might restrict abuse by those engaged in it (*Jones*, p. 955)(Sotomayor, J., concurring).

Justice Sotomayor's opinion reflects an instinctive distrust of power, and the misuse of it by those who hold it; that the misemployment of highly invasive technologies stands opposite to open and democratic society in its potential to "chill" protected freedoms and to alter the relationship between citizen and state (*Jones*, p. 956)(Sotomayor, J., concurring). The breath of fresh air Justice Sotomayor breathes into the privacy debate is anchored in a normative paradigm that inquires whether individuals reasonably expect that their every movement will be aggregated and stored in a way that reveals an entire picture, or mosaic, of who they are, what they do, who they associate with, and where they go, both in public and in private.

The final Chapter maintains that that the Fourth Amendment does not give to the government unrestricted and unlimited power to utilize highly sophisticated surveillance technologies capable of wide-spread, indiscriminant, continuous monitoring of its citizens to the extent that such monitoring intrudes upon societal reasonable expectations of privacy.

CHAPTER VI

PROTECTING OBJECTIVE EXPECTATIONS OF PRIVACY

It is clearly evident that our society is becoming more and more reliant on cell phones, as well as other technologies such as IPads and computers. There are close to 300 million active cell phone subscribers in the United States, many of who now live in homes without a traditional "landline" (*Smith Opinion II*: S.D. Tex., 2010, p. 834). Subscribers use their cell phones to make calls, text, check emails and employ internet applications, both outside the home in public spaces and, just as frequently, from the inside privacy of the home (*Smith Opinion*: S.D. Tex., 2010, p. 834). Some estimates indicate that roughly two out of three adults sleep with their cell phone in the bedroom (*Smith Opinion*: S.D. Tex., 2010, p. 835).

At the same time, the ubiquitous use and possession of cell phones have posed a jurisprudential problem for our courts, particularly in determining how, or if, the Fourth Amendment applies in situations where cell site location data is monitored by law enforcement officers. As with GPS tracking, privacy concerns have arisen and have been scrutinized by the courts, but with no clear consensus as to outcome. In essence, the Fourth Amendment's vitality in relation to individual privacy is being confronted by the onslaught of sophisticated technologies capable of increasingly intrusive monitoring of individuals and which are not dependent on notions of physical trespass on property (*U.S. v. Jones*, 2012, p. 954)(Alito, J., concurring opinion). At the same time, such advanced

technologies may well pave the road for fashioning the elaboration of society's notions of privacy expectations (*U.S. v. Jones*, 2012, p. 955)(Sotomayor, J., concurring opinion).

As Professor Orin Kerr has eruditely maintained, advanced technology is unhinging privacy from property. No physical trespass need take place in order for the government to accumulate a quantity of information about an individual (Kerr, 2004, pp. 819-24). Does the disconnect between property and privacy necessarily entail a diminished societal notion of privacy where such technology allows for intrusive, continuous, remote surveillance absent a physical trespass? As the remainder of this work will argue, the notion of what we perceive as privacy is inherently of value to our democratic way of life, regardless of whether it is inside or outside a property construct (Colb, 2004, p. 896-97), and is in itself deserving of Fourth Amendment protection in relation to intrusive surveillance technologies. As the Court so decidedly held in the thermal imaging case of *Kyllo v. U.S.* (2001), it is not so much the particular method utilized as it is what the method divulges, both in a quantitative and qualitative sense (Gray & Citron, 2012).

Privacy in Location Data

Privacy is a rather indeterminate concept, one susceptible to more expansive or more restrictive meaning, depending on societal attitudes in the face of technological progress. As noted privacy scholar Christopher Slobogin has remarked: "privacy is a very elastic animal" (Slobogin, 2012, p. *8). Similar to many provisions in the Bill of Rights, such as freedom of speech and association, and the prohibition on cruel and

unusual punishment, the Fourth Amendment was drafted upon the historical framework of its framers in reaction to the tyrannical possibility latent in a strong federal government (Amsterdam, 1974, p. 300; Clancy, 2011, pp. 1002-04). The text of the provision evidences a purpose to protect freedom and dignity as against the exercise of intrusive and abusive governmental actions distinctive of a surveillance state: erecting "a wall between a free society and overzealous police action . . . to protect individuals from the tyranny of the police state" (Hutchins, 2007, p. 444). Indeed, as the Supreme Court itself called attention to, the Constitution was set up to place barriers in the way of "permeating police surveillance," which was viewed with more disdain than allowing criminals to escape from punishment (*U.S. v. Di Re*, 1948, p. 595). The Court also saw such constraint as necessary due to the inherent tendency of law enforcement to resort to all means accessible to them to apprehend criminals without the foresight of taking into account the more generalized consequences such actions had for freedom and democracy (*Johnson v. U.S.*, 1948, p. 14).

The same apprehension experienced by the early Framers, and reflected in past Supreme Court comments, exists in the present day as law enforcement expands ever so wider its access and use of advanced surveillance capabilities in a more pervasive and intrusive monitoring of citizens. Such action surely implicates individual and societal expectations of privacy. When the government intrudes upon an individual's "subjective expectation of privacy that society recognizes as reasonable," it executes a Fourth Amendment search (*Kyllo v. U.S.*, 2001, p. 33; *Katz v. U.S.*, 1967, p. 361)(Harlan, J.,

concurring). Therefore, the determination to be made in regard to cell site location tracking by police is whether this new mode of surveillance holds any constitutional import and, if it does, how to construct a jurisprudential approach that addresses those concerns. Central to such an endeavor is whether the government can access cell site location data for continuous monitoring of individuals without Fourth Amendment constraints. As one privacy scholar has remarked: "[t]he answer must be 'no'" (Freiwald, 2011, p. 745).

As previously discussed, all nine justices in *Jones* conceded that technological surveillance in the absence of any trespass could transgress the Fourth Amendment under the reasonable expectation of privacy formulation expounded by Justice Harlan in *Katz.* As the majority opined, "mere visual surveillance does not constitute a search," however, "[it] may be that achieving the same result through electronic means, without an accompanying trespass, is an unconstitutional invasion of privacy" (*U.S. v. Jones*, 2012, pp. 953-54).

As discussed in the preceding chapter, Justice Alito's opinion focuses squarely on the constitutional issue. At the same time, his proposed construct and its application is treated in abstract terms, lacking a clear delineation as to when a particular monitoring operation has gone over the line to becoming a "search" (*U.S. v. Jones*, 2012, p. 964)(Alito, J., concurring). Justice Sotomayor's opinion, on the other hand, solidly grounds her analysis in referents to individual liberties and freedoms by arguing that GPS tracking and, by extension, cell site location tracking, portend detrimental consequences

for a democratic society (*U.S. v. Jones*, 2012, p. 956)(Sotomayor, J., concurring). As will be discussed further in a later section of this chapter, she contends that such long term tracking can chill "associational and expressive freedoms," ultimately giving way to a change in the relationship between citizen and state in a manner she views as "inimical to democratic society" (*U.S. v. Jones*, 2012, p. 956)(Sotomayor, J., concurring). Reflecting the mind-frame of the early Framers, her resolution of whether non-trespassory monitoring constitutes a search would be dependent on an objective reference to societal normative expectations, inquiring:

> [w]hether 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. (*U.S. v. Jones*, 2012, p. 956)(Sotomayor, J., concurring)

Although Justice Sotomayor never explicitly uses the term "mosaic" to describe her analytical approach to such tracking, it is evident that her design and that of the *Maynard* Court are doctrinally alike.

The *Maynard* decision and the two concurring opinions in *Jones* hold the potential of re-galvanizing Fourth Amendment protections in an advanced surveillance age of cell site location data tracking, which necessitates each cell phone subscriber to place reliance on third-party service providers. Given the necessity of such reliance, and the fact that such tracking provides an intimate and comprehensive view of individuals' private lives, it is incumbent for courts to refute the government's adherence to the

"third-party doctrine." Indeed, Justice Sotomayor suggests as much when she questions the premise that individuals have no reasonable expectations of privacy in information disclosed to third parties, which she denotes as "ill suited to the digital age" (*U.S. v. Jones*, 2012, p. 957)(Sotomayor, J., concurring).

CSLI and Third Parties

To justify access to cell site location data the government has consistently relied on the "third-party doctrine," which holds that an individual cannot assert a reasonable expectation of privacy in information that is voluntarily exposed to a third party; that such a person, in essence, assumes the risk that such information might be transmitted to law enforcement. As previously discussed in Chapter IV, "a person who uses the phone . . . assume[s] the risk that the company would reveal to the police the numbers he dialed" (*Smith v. Maryland*, 1979, p. 744); that bank customers have no reasonable expectation of privacy in their financial records due to the fact that such records "contain only information voluntarily conveyed to the banks and exposed to their employees in the ordinary course of business" (*U.S. v. Miller*, 1976, p. 442). Thus, the crux of the issue presented by cell phone location tracking seems to rest on whether the user of the device affirmatively and voluntarily conveyed to the service providers his or her location information.

The mosaic theory presents a potent analytical approach to expanding the protective walls of the Fourth Amendment regarding CSLI tracking. It directs its focus to the nature and amount of the information available to the government. The information

dealt with in the *Smith* and *Miller* cases was limited to phone numbers dialed and bank records. The individuals exposed a restricted amount of information to the telephone company and bank (*Smith v. Maryland*, 1979, p. 742; *U.S. v. Miller*, 1976, p. 437). The defendants' activities were regarded as transactional within the normal conduct of business (*Smith*, p. 742; *Mille*r, p. 442). Moreover, the bank documents and numbers dialed were consciously conveyed to the tellers and operators, or at least their automated counterparts. In sum, the customers were aware of what they were directly exposing to the phone company and banking institution. In *Miller*, the Court recognized a waiver of privacy due to the fact that a customer would realize that banks would keep records of transactions and employees would access those records in conducting their business transactions (*Miller*, 1976, p. 442). The same claim cannot be made in regard to location data (see *U.S. v. Warshak*, 2010, p. 288). Similarly, as courts have determined, the means of a third-party provider to access one's emails (*U.S. v. Warshak*, 2010, p. 288), or hotel room for the purpose of cleaning (*U.S. v. Allen*, 1997, p. 699), or a tenant's apartment for maintenance (*U.S. v. Washington*, 2009, p. 284), is not an adequate basis for circumscribing an individual's reasonable expectation of privacy. Exposing cell site location data to a service provider is a different animal entirely. Such locational information is not directly or voluntarily conveyed to the service provider in the same fashion. Certainly cell phone users are aware that the numbers that they dial are conveyed to the service provider and can be documented on monthly bills. At the same time, callers are not conscious of the fact that making a call will also generate the caller's

location, plus a record of such location. The user's location information is automatically transmitted separate and apart from any conscious control or input from the user themselves (*Smith Opinion II*: S.D. Tex. 2010, p. 844). Unlike itemized charges for calls made, comprehensive location data is not presented on monthly statements, as there is "no legitimate business purpose" for creating such a record, which was an important consideration in the *Smith* decision (*Smith v. Maryland*, 1979, p. 742-43). As one court noted in response to a CSLI request, it is unlikely that users "knowingly expose" or "voluntarily convey" information that they are unaware exists (*Smith Opinion II*: S.D. Tex. 2010, p. 844). In addition, it is logical to presume that when an individual receives a call that she has not voluntarily exposed anything in answering it (*Third Circuit Opinion*: 3rd Cir. 2010). As one Sixth Circuit Court found, although rejecting the defendant's challenge on other grounds, a suspect whose phone was "pinged" by police dialing his cell phone number in order to track his location did not voluntarily convey such information to anyone; rather, it was the police who caused the location information to be signaled (*U.S. v. Forest*, 2004).

The distinction between CSLI requests and the requests for numbers dialed or for bank records is clear. As such, any meaningful analysis of a reasonable expectation of privacy must work its way back to *Katz* and eventually come to rest under the protection of the mosaic umbrella. Perhaps it is time to put the third-party doctrine to bed with its undue belief that somehow secrecy must be a "prerequisite for privacy" " (*U.S. v. Jones*, 2012, p. 957)(Sotomayor, J., concurring). As Justice Sotomayor remarked, not "all

information voluntarily disclosed to some member of the public for a limited purpose is, for that reason alone, disentitled to Fourth Amendment protection" " (*U.S. v. Jones*, 2012, p. 957)(Sotomayor, J., concurring)(citing *Smith v. Maryland*, 1979, p. 749)(Marshall, J., dissenting). As Justice Marshall aptly noted, privacy is not something that is possessed in absolute terms or not at all (*Smith v. Maryland*, 1979, p. 749)(Marshall, J., dissenting).

In utilizing *Maynard's* analytical approach of the mosaic, focus must be directed to the invasiveness of CSLI tracking and to the quantity and quality of the information acquired by that surveillance technology. Even the *Smith* Court directed some attention to the invasiveness of using a pen register to disclose telephone numbers dialed, ultimately finding that dialed numbers did not in any meaningful way intrude on privacy (*Smith v. Maryland*, 1979, p. 741). In contrast, cell site location data is immensely revealing, laying bare an intimate portrait of a person's movements over a protracted period of time. The use of cell phones takes place in one's home, at work, locations to which the Fourth Amendment may particularly lend protection. As will be argued in regard to CSLI tracking, the sum of a person's movements reveals more than its discrete parts. The mosaic adopted and applied by the Court in *Maynard* is no less applicable to CSLI tracking than it was to GPS tracking—perhaps even more so. That point will be developed more fully in the next section.

The Mosaic Theory: Contouring the Future Debate on Privacy Rights

The *Maynard* Court's approach, along with the reasoning of Justices Sotomayor and Alito in *Jones*, evidences significant potential for reshaping and adapting the

boundaries of Fourth Amendment jurisprudence regarding advanced surveillance technologies in an information age. The mosaic construct presents a strong bulwark for privacy protection in the face of increasingly more intrusive monitoring capabilities exploited by law enforcement, particularly in regard to personal information accumulated by third-party automated intermediaries (Collins, 2012; Gray & Citron, 2012, Aug. 14). As one commentator has correctly observed, the present approach taken by law enforcement to electronic information harkens back to the early Founders' days where writs of general assistance authorized the indiscriminant accumulation of information on colonists without warrants based on probable cause (Collins, 2012, p. 11). And, as previously discussed, the false categorization that individuals "voluntarily" disclose to automated third-party intermediaries vast amounts of personal information directly confronts "an expectation of privacy that our society recognizes as reasonable (*U.S. v. Maynard*, 2010, p. 556).

Cell site location information tracking poses a dilemma that traditional tracking by following a suspect using beepers could not engender due to its labor and cost-intensiveness, which constrained such monitoring fro being continuous for sustained periods of time. As the *Maynard* Court pointed out, GPS and, by extension CSLI tracking, bring to the fore a completely different and "unknown type of intrusion into . . . ordinarily and hitherto private enclave[s]" (*Maynard*, 2010, p. 565). As the privacy advocate Daniel Solove has written, the information accumulated can reveal an intimate portrait of whom we are, in essence, our identities (2008, p. 33). The wealth of such

information creates a virtual map of an individual's movements that has never been available to law enforcement to such a degree and quality and that goes far beyond call-identifying data (Lockwood, 2004, p. 312). Indeed, compared to the GPS tracking in *Maynard/Jones*, CSLI reveals more about a person due to the fact that people carry their cell phones wherever they go in purses and pockets, be it to the doctor's office, to a political gathering, in the space of their own home or, more intimately, inside their bedroom.

The fact that cell phones are carried into places – "withdrawn from public view" --where individuals have a reasonable expectation of privacy, clearly raises Fourth Amendment concerns, as *U.S. v. Karo* (1984, p. 716) recognized. There the Court found the beeper used to track the defendant "was inside the house" and that fact "could not have been visually verified" (p. 715). The Court went on to proscribe the government's tracking of the beeper "to determine . . . whether a particular article—or a person, for that matter—is in an individual's home at a particular time" (*Karo*, 1984, p. 717). Even if a cell phone owner makes no calls, the phone's presence inside the home would be disclosed by the automatic registration process (*Smith Opinion II*: S.D. Texas, 2010, p. 836), thus drawing cell site location within the contours of Fourth Amendment protection, as held in *Karo* (1984).

Long-term, continuous monitoring of cell site location information taking place in public space would fall squarely within the contours of the mosaic theory of the Fourth Amendment, recognizing that "when it comes to privacy . . . the whole may be more

revealing than the parts" (*U.S. v. Maynard*, 2010, p. 561). Reflecting Judge Ginsburg's analytical approach in *Maynard*, Justice Alito directs focus to the question as to what society would reasonably expect; his observation is that society would not expect police, or others, to covertly monitor a person's every movement for long periods of time (*U.S. v. Jones*, 2012, p. 964)(Alito, J., concurring). The qualitative distinction presented by CSLI tracking simply would not be anticipated nor foreseen by individuals in a free society (*Jones*, 2012, p. 964)(Alito, J., concurring). In that event, cell site location tracking would certainly call for Fourth Amendment protection.

At the same time, Justice Sotomayor's opinion offers a forceful directive, squarely situated within the early Framers' own distrust of government power and analytically grounded in other constitutional freedoms, such as the freedom of expression, religion and association (*U.S. v. Jones*, 2012, p. 956)(Sotomayor, J., concurring). Her message is that power is susceptible to being abused; the end product of such abuse may be to "chill[] associational and expressive freedoms" (*Jones*, 2012, p. 956)(Sotomayor, J., concurring). Other legal scholars have voiced similar concerns (Slobogin, 2002, pp. 253-55; Solove, 2007, pp. 143-44). Importantly, she calls attention to the fact that such "chilling" may alter the power "relationship between citizen and government" in a manner "that is inimical to democratic society" (*Jones*, 2012, p. 956)(Sotomayor, J., concurring).

Embodied in her perspective is the view that a surveillance state is undemocratic and not fully free without a notion of privacy that fosters the engagement of citizens in a

self-directed public life, which is crucial to the reality of public citizenship in a democracy. Justice Douglas conveyed like sentiments some 40 years earlier:

> [C]oncepts of privacy which the Founders enshrined in the Fourth Amendment vanish completely when we slavishly allow an all-powerful government, proclaiming law and order, efficiency, and other benign purposes, to penetrate all the walls and doors that men need to shield them from the pressures of a turbulent life around them and give them the health and strength to carry on. (*United States v. White*, 1971, p. 756)(Douglas, J., dissenting)

It is evident that Justice Sotomayor believes that in order for a democracy to thrive in a meaningful way that individuals need to be free of undue and intrusive surveillance that can inhibit the development of meaningful social discourse, debate, and individual personal growth and autonomy necessary to fostering a citizenship capable of applying their conception of how best "to live their own lives" (Swhwartz, 1999, p. 1653). In short, she clearly intimates that indiscriminate, long-term monitoring of citizens can place into jeopardy the purpose and design of democratic society, which is the free, unintimidated citizen involvement in the life of the community (Schwartz, 1995, p. 561).

The challenge facing the Court is to interpret and apply Fourth Amendment principles as originally conceived by the Framers to ever-evolving technologies of surveillance; to refer to the principles that the Amendment inherently implies for how

such surveillance will be used to collect information about citizens in a democratic and open society. It has been maintained in this work that the mosaic provides one such approach to addressing the challenge.

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