IS NEW TECHNOLOGY JEOPARDIZING OUR CONSTITUTIONAL RIGHT TO PRIVACY?

by

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I. INTRODUCTION

The Fourth Amendment to the Constitution of the United States prohibits unreasonable searches and seizures, stating that people have the right to be secure in their persons, houses, papers, and effects. It further requires that any search warrant be judicially sanctioned and supported by probable cause.[1] Over the past few decades the U.S. Supreme Court has ruled that many "searches" were not actually "searches"; therefore, they are not subject to the constitutional protections of the Fourth Amendment. Due to extensive advances in technology, there is increasing concern about privacy. This article will examine the relevant Supreme Court rulings that have protected and alternately restricted Fourth Amendment privacy rights, as well as analyze the Court's most recent decisions regarding this matter.

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II. OLMSTEAD v. UNITED STATES

Olmstead v. United States[2] is one of the earliest cases in which the Supreme Court analyzed whether the use of new technology to obtain incriminating evidence violated a defendant's Fourth Amendment rights. In *Olmstead*, federal agents wiretapped private telephone conversations without judicial approval.[3] This 1928 case concerned several petitioners who were convicted of conspiracy.[4] The information that led to the discovery of the conspiracy was largely obtained by federal officers who were able to intercept messages on the conspirators' telephones. No laws were violated in installing the wiretapping equipment, as the officers did not trespass upon either the homes or the offices of the defendants; instead, the equipment was placed in the streets near the houses and in the basement of a large office building.[5] The wiretapping went on for several months, and the records revealed significant details of the conspiracy.[6]

The majority opinion in *Olmstead* states that the Fourth Amendment, in part, intends to prevent the use of governmental force to search and seize an individual's personal property and effects. "The amendment does not forbid what was done here. There was no searching. There was no seizure. The evidence was secured by the use of the sense of hearing and that only. There was no entry of the houses or offices of the defendants."[7] The opinion further suggests that because the wires that were tapped were not a part of either the petitioners' houses or offices, they were not subject to the protections of the Fourth Amendment.[8] The majority concluded that there had been no official search and seizure of the person, his papers, or tangible material effects, and no actual physical invasion of property.[9] Since there was no physical intrusion or seizure of private property, the Court ruled

that the wiretapping did not amount to a search or seizure within the meaning of the Fourth Amendment.[10]

What makes *Olmstead* an important and often-quoted decision is not the opinion of the majority, but the famous dissent by Justice Louis Brandeis. Justice Brandeis attacks the majority's "trespass doctrine" and refusal to expand Fourth Amendment protections to telephone conversations.[11] He states that when the Fourth Amendment was adopted, “force and violence” were the only means by which the government could compel self-incrimination.[12] Thus, the protections offered were necessarily limited to address only imaginable forms of such force and violence.[13] He further contends that, due to technological advances, the government can invade privacy in more subtle ways, and there is no reason to think that the rate of such technological advances will slow down. Brandeis found it unimaginable that the Constitution affords no protection against such invasions of individual security.[14]

Brandeis further argues that the protections guaranteed by the Fourth Amendment are broad in scope. The framers of the Constitution sought "to protect Americans in their beliefs, their thoughts, their emotions, and their sensations."[15] It is for this reason that they established, as against the government, the "right to be let alone" as "the most comprehensive of rights and the right most valued by civilized men."[16] To protect that right, every unjustifiable intrusion by the government upon the privacy of the individual, whatever the means employed, must be deemed a violation of the Fourth Amendment.[17] Government officials must be subject to the same rules of conduct that we expect of every citizen. In his rousing dissent Justice Brandeis proved to be a visionary. Nearly forty years later, in its 1967 landmark decision in *Katz v. United States*,[18] the Supreme Court overruled *Olmstead* and similar decisions, and embraced Brandeis' view of protected privacy.

III. KATZ v. UNITED STATES

In *Katz v. United States*[19] the defendant, Charles Katz, was involved in interstate gambling, which is illegal under federal law. To avoid detection and prison, he used public telephone booths to conduct his business.[20] The Federal Bureau of Investigation became aware of his activities and moved quickly to collect evidence. The FBI identified the three phone booths Katz used on a regular basis and worked with the telephone company to take one out of service.[21] The other booths were bugged, and agents were stationed outside Katz's nearby apartment. Based upon the recorded conversations the FBI arrested Katz and charged him with an eight-count indictment.[22]

Katz's claim that the FBI's surveillance of the phone booths was unconstitutional directly conflicted with decades of Supreme Court precedent, most notably *Olmstead*.[23] Fortunately for Katz, he found a more receptive judiciary, and the Court's 7-1 majority overturned the "trespass doctrine" that was established by the Court in *Olmstead*. The majority held that the Fourth Amendment "protects people, not places" and is not dependent on intrusion into physical spaces. The Court also held that the Fourth Amendment applies to oral statements just as it does to tangible objects.

> . . . a person in a telephone booth may rely upon the protection of the Fourth Amendment. One who occupies it, shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world. To read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communication.[24]

In a separate concurrence, Justice John Marshall Harlan, Jr. fleshed out a test for identifying a "reasonable expectation of privacy," one that is both subjectively understood by the individual and objectively recognized by society at large. He wrote:

> As the Court's opinion states, "the Fourth Amendment protects people, not places." The question, however, is what protection it affords to those people. Generally, as here, the answer to that question requires reference to a "place." My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person has exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as "reasonable." Thus, a man's home is, for most purposes, a place where he expects privacy, but objects, activities, or statements that he exposes to the "plain view" of outsiders are not "protected" because no intention to keep them to himself has been exhibited. On the other hand, conversations in the open would not be protected against being overheard, for the expectation of privacy under the circumstances would be unreasonable.[25]

Within a year, the Supreme Court started to use Justice Harlan's "reasonable expectation of privacy" test as the standard in its Fourth Amendment jurisprudence.[26] Within a decade, Harlan's test became so familiar that the Court officially recognized it as the essence of the *Katz* decision.[27] While *Katz* expanded the Fourth Amendment protection against "unreasonable searches and seizures" to cover electronic wiretaps, the long arm of *Katz* reaches into recent debates

over GPS tracking and mass data collection.[29] Indeed, in an age of increasing digital technology, the principle that the Fourth Amendment "protects people, not places" is more consequential than ever.

IV. UNITED STATES v. JONES

In *United States v. Jones,*[30] decided in 2012, respondent Jones owned and operated a nightclub and came under suspicion of narcotics trafficking. Based on information gathered through various investigative techniques, police were granted a warrant authorizing use of a GPS tracking device on a Jeep of which Jones was the exclusive driver, however, the police failed to comply with the warrant's deadline.[31] Officials nevertheless installed the device on the undercarriage of the Jeep and used it to track the vehicle's movements.[32] By satellite, the device established the vehicle's location within 50 to 100 feet and communicated the location by cell phone to a government computer, relaying more than 2,000 pages of data over a 28-day period. The District Court suppressed the GPS data obtained while the vehicle was parked at Jones' residence, but held the remaining data was admissible because Jones had no reasonable expectation of privacy while the vehicle was on public streets.[33] The government obtained an indictment against Jones that included charges of conspiracy to distribute cocaine.[34]

Jones was ultimately convicted, but the D.C. Circuit Court reversed the conviction, holding the admission of evidence obtained by the warrantless use of the GPS device violated the Fourth Amendment.[35] Upon review, the Supreme Court held unanimously that this was a "search" under the Fourth Amendment, although they were split as to the fundamental reasons behind that conclusion.[36] Justice Antonin Scalia wrote the opinion for the majority, holding that by

physically installing the GPS device on the defendant's car, the police had committed a trespass against Jones' "personal effects" and this constituted a search.[37] While he stated that *Katz* supplemented rather than replaced the trespassory test for whether a search has occurred, Scalia focused on trespass concerns versus the "reasonable expectation of privacy" standard developed in *Katz*.[38] Justice Scalia argued that the government's physical intrusion on Jones's car, a personal "effect", would clearly be a search within the original meaning of the Fourth Amendment; the police had physically encroached on a protected area to gather information.[39]

Justice Samuel Alito, joined by Justices Ginsburg, Breyer, and Kagan, concurred in the judgment, but disagreed with the majority that any technical trespass that results in the gathering of evidence amounts to search, and asserted that the case should have been analyzed under the *Katz* standard.

> This case requires us to apply the Fourth Amendment's prohibition of unreasonable searches and seizures to a 21st-century surveillance technique, the use of a Global Positioning System (GPS) device to monitor a vehicle's movements for an extended period of time. Ironically, the Court has chosen to decide this case based on 18th-century tort law. By attaching a small GPS device to the underside of the vehicle that respondent drove, the law enforcement officers in this case engaged in conduct that might have provided grounds in 1791 for a suit for trespass to chattels. And for this reason, the Court concludes, the installation and use of the GPS device constituted a search.

> This holding, in my judgment, is unwise. It strains the language of the Fourth Amendment; it has little if any support in current Fourth Amendment case law; and it is highly artificial.
>
> I would analyze the question presented in this case by asking whether respondent's reasonable expectations of privacy were violated by the long-term monitoring of the movements of the vehicle he drove.[40]

Justice Alito stated that because GPS technology is relatively easy and cheap, it overcomes traditional practical constraints on close surveillance and concluded that, in this case, its use violated society's expectation that law enforcement would monitor all of an individual's movements in his or her car for a 4-week period. While relatively short-term monitoring of an individual's movements on public streets may be reasonable, "the use of longer-term GPS monitoring in investigations of most offenses impinges on expectations of privacy."[41]

While Justice Sonia Sotomayor joined in the Court's majority opinion and agreed that *Katz* supplemented rather than replaced the trespassory test for whether a search has occurred, she wrote a separate concurring opinion. She concurred with Justice Alito that most long-term GPS monitoring would violate *Katz* but noted that even short-term monitoring may violate an individual's reasonable expectation of privacy because of the unique nature of GPS surveillance.[42]

V. THIRD PARY DOCTRINE

Advances in technology have also caused the Court to reexamine the "third-party" doctrine. Under this doctrine,

individuals have no constitutional right to privacy in information that others lawfully have; the government may search that data without a warrant or probable cause. The third-party doctrine largely traces its roots to *United States v. Miller*.[43] In this 1976 case, the government suspected Miller of tax evasion, and subpoenaed his banks, seeking several months of canceled checks, deposit slips, and monthly statements. The Court rejected a Fourth Amendment challenge to the records collection on two grounds. For one, Miller could "assert neither ownership nor possession"[44] of the documents; they were "business records of the banks."[45] For another, the nature of those records confirmed Miller's limited expectation of privacy, because the checks were "not confidential communications but negotiable instruments to be used in commercial transactions,"[46] and the bank statements contained information "exposed to [bank] employees in the ordinary course of business."[47] The Court concluded that Miller had taken a risk in revealing his affairs to a third party; therefore, that information could be conveyed by the third party to the government.

Three years later, in *Smith v. Maryland*,[48] decided in 1979, the Court applied the same principles in the context of information conveyed to a telephone company. In *Smith*, the telephone company, at police request, installed at its central offices a pen register to record all numbers dialed from the telephone located at the petitioner's home. The police did not get a warrant or court order before having the pen register installed. Since the pen register was installed on telephone company property, the petitioner could not claim that his "property" was invaded or that police intruded into a "constitutionally protected area." While there was no trespass, the petitioner claimed that the State infringed upon the "legitimate expectation of privacy" that he had in the telephone numbers he dialed from his home telephone.[49]

The Supreme Court held that installing a pen register is not a search because the "petitioner voluntarily conveyed numerical information to the telephone company." Since the defendant had disclosed the dialed numbers to the telephone company so that it could connect his calls, his expectation of privacy regarding the numbers he dialed was not reasonable.[50] All telephone users realize that they must "convey" phone numbers to the telephone company, since it is through telephone company switching equipment that their calls are completed. All subscribers also realize that the phone company has the ability to make permanent records of the numbers they dial, so this information cannot be considered private.[51] As a result, the government is typically free to obtain such information from the third party without triggering Fourth Amendment protections.[52] The *Smith* decision left pen registers completely outside constitutional protection, and made it clear that if there were to be any privacy protection, it would have to be enacted by Congress as statutory law.

VI. STORED COMMUNICATIONS ACT

The Stored Communications Act[53] of 1986 is a law that addresses voluntary and compelled disclosure of "stored wire and electronic communications and transactional records" held by third-party internet service providers (ISPs). Internet users generally entrust the security of online information to ISPs; therefore, many Fourth Amendment cases have held that users relinquish any expectation of privacy in this information. While the Fourth Amendment requires a search warrant and probable cause to search one's home,[54] under the third-party doctrine only a subpoena and prior notice are needed to subject an ISP to disclose the contents of an email or of files stored on a server.[55] This is a much lower hurdle to overcome than probable cause. The Stored Communications Act (SCA) creates Fourth

Amendment-like privacy protection for email and other digital communications stored on the internet.[56] It limits the ability of the government to compel an ISP to turn over content information and non-content information, such as logs and email envelope information.[57] In addition, it limits the ability of commercial ISPs to reveal content information to nongovernment entities.[58]

The SCA targets two types of online service, "electronic communication services" and "remote computing services."[59] The statute defines an electronic communication service as "any service which provides to users thereof the ability to send or receive wire or electronic communications."[60] A remote computing service is defined as "the provision to the public of computer storage or processing services by means of an electronic communications system."[61] With respect to the government's ability to compel disclosure, the most significant distinction made by the SCA is that communications held in electronic communications services require a search warrant and probable cause, and those in remote computing services only require a subpoena or court order, with prior notice.[62] This distinction seems artificial and, due to historical and projected technological growth, Congressional legislative reform of the SCA appears necessary. The Supreme Court addressed this issue in its 2018 decision in the *Carpenter* case.[63]

VII. CARPENTER v. UNITED STATES

In *Carpenter v. United States,*[64] decided in 2018, several individuals conspired and participated in armed robberies over a four-month period. Four of the robbers were captured and arrested, and one of those arrested confessed and turned over his phone, allowing FBI agents to review the calls made from his phone at the time of the robberies. Soon after, a judge, in

accordance with the Stored Communications Act,[65] granted the FBI's request to obtain "transactional records" from various wireless carriers for 16 different phone numbers for "[a]ll subscriber information, toll records and call detail records including listed and unlisted numbers dialed or otherwise transmitted to and from [the] target telephones . . . as well as cell site information for the target telephones at call origination and at call termination for incoming and outgoing calls[.]"[66] The government obtained a court order before gaining access to the information; while they did not have probable cause for a search warrant, prosecutors only had to show that they were seeking evidence relevant to a criminal investigation.[67] This was enough under the Stored Communications Act, which requires only "that there are reasonable grounds to believe that the contents of a wire or electronic communication, or the records or other information sought, are relevant and material to an ongoing criminal investigation."[68]

Using this information, the government was able to determine that Carpenter was within a two-mile radius of four robberies.[69] Carpenter was arrested, and a jury later convicted him on several counts of robbery, among other things.[70] Carpenter appealed and the Sixth Circuit, relying on the Supreme Court's decision in *Smith v. Maryland,*[71] affirmed, stating that only the content of a person's communication is protected by the Fourth Amendment.[72] The Court explained that "cell-site data, like mailing addresses, phone numbers, and IP addresses, are information that facilitate personal communications, rather than part of the content of those communications themselves."[73] Furthermore, the Court determined that the government did not obtain information from Carpenter, but the service provider's business records. Therefore, the government's collection of the service provider's business records did not constitute a "search" of Carpenter under

the Fourth Amendment, and a warrant was not required.[74] Carpenter appealed to the Supreme Court.

In a 5-4 decision the Supreme Court reversed. Chief Justice John Roberts wrote the opinion for the majority, holding that the acquisition of Carpenter's cell-site records was a Fourth Amendment search.[75] When a phone connects to a cell site, it generates time-stamped cell-site location information (CSLI) that is stored by wireless carriers for business purposes. Historical cell-site records give the government near-perfect surveillance and allow it to travel back in time to retrace a person's whereabouts. Roberts wrote that this sort of digital data, personal location information maintained by a third party, does not fit neatly under existing precedents. Instead, requests for cell-site records lie at the intersection of two lines of cases: those that address people's expectation of privacy in their physical location and movements, and those that distinguish between what people keep to themselves and what they share with others, known as the third-party doctrine.[76]

Chief Justice Roberts declined to apply the premise of the Court's majority opinion in *United States v. Jones,*[77] the GPS tracking case, which characterized the Fourth Amendment in terms of trespass upon property rights. Instead, he underscored the "reasonable expectation of privacy" concerns emphasized by five of the Justices in *Jones*.[78] Roberts noted that, "Since GPS monitoring of a vehicle tracks 'every movement' a person makes in that vehicle, the concurring Justices concluded that 'longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy'."[79]

Roberts then addressed the third-party doctrine, stating that at the time earlier cases about bank and phone records were decided,

> . . .few could have imagined a society in which a phone goes wherever its owner goes, conveying to the wireless carrier not just dialed digits, but a detailed and comprehensive record of the person's movements. We decline to extend *Smith*[80] (bank records) and *Miller*[81] (phone records) to cover these novel circumstances.[82]

Roberts noted that there is a "world of difference between the limited types of personal information" addressed in precedent and the "exhaustive chronicle of location information casually collected by wireless carriers."[83] Location data is not truly "shared" because cell phones are an indispensable, pervasive part of daily life and they log location data without any affirmative act by the user.[84]

Chief Justice Roberts noted that this decision is narrow and does not address conventional surveillance tools, such as security cameras, other business records that might reveal location information, or collection techniques involving foreign affairs or national security. In the end, he returned to Justice Brandeis' famous dissent in *Olmstead,*[85] "[T]he Court is obligated, as '[s]ubtler and more far-reaching means of invading privacy have become available to the Government' to ensure that the 'progress of science' does not erode Fourth Amendment protections.[86]

VIII. CONCLUSION

The Fourth Amendment to the Constitution of the United States prohibits unreasonable searches and seizures, protecting one's personal information from public scrutiny. The Supreme Court in *Olmstead*[87] held that if there was no physical intrusion or seizure of private property, there was no search or

seizure within the meaning of the Fourth Amendment.[88] Justice Brandeis attacked the majority's "trespass doctrine" and their refusal to expand Fourth Amendment protections to telephone conversations, believing the Fourth Amendment guaranteed individuals "the right to be left alone." Nearly forty years later, in *Katz v. United States*,[89] the Supreme Court overruled *Olmstead* and similar decisions, and embraced Brandeis' view of protected privacy.

Katz expanded the Fourth Amendment protection against "unreasonable searches and seizures" to cover electronic wiretaps.[90] The majority held that the Fourth Amendment "protects people, not places", is not dependent on intrusion into physical spaces, and applies to oral statements just as it does to tangible objects.[91] In a separate concurrence, Justice Harlan set forth the "reasonable expectation of privacy" test, which is now considered the essence of the *Katz* decision.[92]

In *Jones*[93] the Supreme Court examined whether the admission of evidence obtained by the warrantless use of a GPS tracking device violated the Fourth Amendment. While the Court unanimously held that this was a "search" under the Fourth Amendment, they were split as to the reasons behind that conclusion.[94] The majority returned to the old "trespass doctrine", holding that by physically installing the GPS device on the defendant's car, the police had committed a trespass against Jones' "personal effects" and this constituted a search.[95] However, the four concurring Justices asserted that the case should have been analyzed under the "reasonable expectation of privacy" standard developed in *Katz*.[96]

In both *Miller*[97] and *Smith*[98] the Court applied the "third party" doctrine, stating that information voluntarily conveyed to a third party cannot be considered private.[99] As a result, the government is typically free to obtain such information from the

third party without triggering Fourth Amendment protections.[100] While the third-party doctrine only requires a subpoena and prior notice to obtain information from a third party, the Stored Communications Act (SCA) creates Fourth Amendment-like privacy protection for email and other digital communications stored on the internet.[101] However, the SCA does not provide this level of protection for communications held in remote computing services.[102] The Supreme Court addressed this issue in *Carpenter v. United States*.[103]

In *Carpenter* the government did not have probable cause for a search warrant. However a judge, in accordance with the SCA, granted the FBI's request for a court order to obtain "transactional records" from various wireless carriers.[104] The Court held that the acquisition of Carpenter's cell-site records was a Fourth Amendment search and impinged on his "reasonable expectation of privacy."[105] The Court distinguished the limited types of personal information addressed in precedent from the "exhaustive chronicle of location information casually collected by wireless carriers."[106]

Our laws protect people from governmental intrusion in their daily lives. It has long been the task of the Supreme Court to balance the rights of individuals against the need of the government for information. This task has become exceedingly difficult due to technological advances as the progress of science has afforded law enforcement officials powerful new tools to carry out their important responsibilities. At the same time, these tools risk government encroachment of the sort that the Framers drafted the Fourth Amendment to prevent. The Supreme Court's refusal in *Carpenter*[107] to grant unrestricted access to a wireless carrier's database of physical location information is vitally important for privacy protection amid such extraordinary and rapidly advancing technology.

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[1] U.S. CONST. amend. IV.
[2] *Olmstead v. United States,* 277 U.S. 438 (1928).
[3] *Id.* at 439-440.
[4] *Id.* at 438.
[5] *Id.* at 464.
[6] *Id*.
[7] *Id.* at 466.
[8] *Id.* at 457, 464, 466.
[9] *Id.* at 464-466.
[10] *Id.* at 466.
[11] *Id.* at 473-478 (Brandeis, J., dissenting).
[12] *Id.* at 473 (Brandeis, J., dissenting).
[13] *Id*.
[14] *Id.* at 474.(Brandeis, J., dissenting).
[15] *Id.* at 478. (Brandeis, J., dissenting).
[16] *Id.*
[17] *Id*.
[18] *Katz v. United States,* 389 U.S. 347 (1967).
[19] *Id.* at 348.
[20] *Id.*
[21] *Id.* at 348-349.
[22] *Id.* at 349.
[23] *Olmstead v. United States,* 277 U.S. 438 (1928).
[24] *Katz v. United States,* 389 U.S. 347, 351 (1967).
[25] *Id.* at 361 (Harlan, J., concurring).
[26] See *Mancusi v. DeForte,* 392 U.S. 364, 368 (1968), (applying the "reasonable expectation of privacy test" in the Court's majority decision).
[27] See *Kyllo v. United States,* 533 U.S. 27, 33 (2001) ("As Justice Harlan's oft-quoted concurrence described it, a Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable.")
[28] *Katz v. United States,* 389 U.S. 347, 351 (1967).
[29] See *United States v. Jones,* 565 U.S. 400 (2012), and *Carpenter v. United States*, No. 16-402, slip op. at 1 (U.S. Jun. 22, 2018).
[30] *United States v. Jones,* 565 U.S. 400 (2012).
[31] *Id.* at 401.
[32] *Id.*
[33] *Id.*
[34] *Id*.

[35] *United States v. Jones,* 625 F. 3d 766 (D.C. Cir. 2010).
[36] *United States v. Jones,* 565 U.S. 400, 402 (2012).
[37] *Id.* at 403.
[38] *Id.* at 409-410.
[39] *Id.* at 404-405.
[40] *Id.* at 418-419. (Alito, J., concurring).
[41] *Id.* at 430-431. (Alito, J., concurring).
[42] *Id.* at 414-415. (Sotomayor, J., concurring).
[43] *United States v. Miller,* 425 U.S. 435 (1976).
[44] *Id.* at 443.
[45] *Id*.
[46] *Id*.
[47] *Id.*
[48] *Smith v. Maryland,* 442 U.S. 735 (1979).
[49] *Id.* at 741.
[50] *Id.* at 742.
[51] *Id.*
[52] *Id.* at 746.
[53] 18 U.S.C. Chapter 121 §§ 2701–2712.
[54] U.S. CONST. amend. IV.
[55] *United States v. Miller,* 425 U.S. 435, 443 (1976).
[56] 18 U.S.C. Chapter 121 § 2703.
[57] *Id*.
[58] *Id*.
[59] *Id*.
[60] *Id*.
[61] *Id.*
[62] *Id.*
[63] *Carpenter v. United States,* No. 16-402, slip op. at 1 (U.S. Jun. 22, 2018).
[64] *Id* at 2.
[65] 18 U.S.C. Chapter 121 §§ 2701–2712.
[66] *Carpenter v. United States*, No. 16-402, slip op. at 3 (U.S. Jun. 22, 2018).
[67] *Id*.
[68] 18 U. S. C. Chapter 121 §2703(d).
[69] *Carpenter v. United States*, No. 16-402, slip op. at 4 (U.S. Jun. 22, 2018).
[70] *Id*.
[71] *Smith v. Maryland,* 442 U.S. 735 (1979).
[72] *United States v. Carpenter,* 819 F.3d 880 (6th Cir. 2016).
[73] *Id.* at 885.
[74] *Id.*.
[75] *Carpenter v. United States*, No. 16-402, slip op. at 22 (U.S. Jun. 22, 2018).

[76] *Id* at 14-15.
[77] *United States v. Jones,* 565 U.S. 400 (2012).
[78] *Katz v. United States,* 389 U.S. 347, 418-419 (1967). Justice Alito's concurring opinion, joined by Justices Ginsberg, Breyer, and Kagan, arguing that *Katz's* "reasonable expectation of privacy" test governed the case, and denouncing the majority's disinterment of the trespass doctrine as outmoded and long overruled, and Justice Sotomayor's lone concurring opinion, joining the majority but also applying *Katz*.
[79] *Carpenter v. United States*, No. 16-402, slip op. at 16 (U.S. Jun. 22, 2018).
[80] *Smith v. Maryland,* 442 U.S. 735 (1979).
[81] *United States v. Miller,* 425 U.S. 435 (1976).
[82] *Carpenter v. United States*, No. 16-402, slip op. at 11 (U.S. Jun. 22, 2018).
[83] *Id*.
[84] *Id*.
[85] *Olmstead v. United States,* 277 U.S. 438 (1928).
[86] *Carpenter v. United States*, No. 16-402, slip op. at 22 (U.S. Jun. 22, 2018). Chief Justice Roberts quoting Justice Brandeis' dissent in *Olmstead*.
[87] *Olmstead v. United States,* 277 U.S. 438 (1928).
[88] *Id.* at 438.
[89] *Katz v. United States,* 389 U.S. 347 (1967).
[90] *Id.*
[91] *Id.* at 351.
[92] *Id.* at 361 (Harlan, J., concurring).
[93] *United States v. Jones,* 565 U.S. 400 (2012).
[94] *Id.* at 402.
[95] *Id.* at 401.
[96] *Id.* at 418-419. (Alito, J., concurring).
[97] *United States v. Miller,* 425 U.S. 435 (1976).
[98] *Smith v. Maryland,* 442 U.S. 735 (1979).
[99] *United States v. Miller,* 425, 443 U.S. 435 (1976); *Smith v. Maryland,* 442 U.S. 735, 742 (1979).
[100] *United States v. Miller,* 425, 443 U.S. 435 (1976); *Smith v. Maryland,* 442 U.S. 735, 746 (1979).
[101] 18 U.S.C. Chapter 121 § 2703.
[102] *Id.*
[103] *Carpenter v. United States*, No. 16-402, slip op. at 1 (U.S. Jun. 22, 2018).
[104] *Id.* at 3.
[105] *Id.* at 22.
[106] *Id.* at 15.

[107] *Id.*