

ALEXA AND THIRD PARTIES' REASONABLE EXPECTATION OF PRIVACY

Raphael Davidian

INTRODUCTION

“Last night, I was driving a *Lexus* and accidentally ran a red light before hitting a young man crossing the street.” If someone says this in a friend’s home, not knowing that Amazon’s Alexa is recording, does this person have a reasonable expectation of privacy? Would law enforcement’s attempts to obtain the statement constitute a search?

Recently, Amazon agreed to disclose recordings captured on an Amazon Echo device in the home of a murder suspect in Arkansas.¹ Amazon initially refused to hand these recordings to the police, but later obtained permission from the Echo’s owner. The Echo is a small “smart” speaker that responds to voice commands by way of its artificial intelligence assistant named “Alexa.”² Users can use the device to run simple web searches, control digital thermostats, or play a variety of media.³ Voice interactions are recorded on Amazon’s servers and users can view (and delete) the query, Alexa’s response, and even a transcript of the whole exchange.⁴

Under current Fourth Amendment doctrine, when someone takes a deliberate step to install a microphone in her home with knowledge that her interactive data will be transmitted to a third party, she has no reasonable expectation of privacy.⁵ But a more nuanced question arises when someone who is *not* the device owner is recorded without consent, and the recording is requested without a warrant. This piece will discuss Alexa’s role in a recent murder trial and how the device could have potentially recorded and stored incriminating evidence. The discussion will follow with an inquiry into whether existing state consent laws can be reconciled with the existing third-party doctrine in order to match the privacy expectations of visitors to an Alexa-enhanced home.

¹ See Elliott C. McLaughlin, *Suspect Oks Amazon to Hand Over Echo Recordings in Murder Case*, CNN (Mar. 7, 2017, 11:50 AM), <http://www.cnn.com/2017/03/07/tech/amazon-echo-alexa-bentonville-arkansas-murder-case/>; Elliott C. McLaughlin & Keith Allen, *Alexa Can You Help with This Murder Case?*, CNN (Dec. 28, 2016, 8:48 PM), <http://www.cnn.com/2016/12/28/tech/amazon-echo-alexa-bentonville-arkansas-murder-case-trnd/>.

² *Id.* Kevin Tofel, *Amazon Echo Just Became Much More Useful with IFTTT Support*, ZDNet (May 2, 2015, 12:28 PM), <http://www.zdnet.com/article/amazon-echo-ifttt-channels-for-alexa/#!>.

³ McLaughlin & Allen, *supra* note 1.

⁴ *Alexa Terms of Use*, Amazon (Feb. 2, 2016), <https://www.amazon.com/gp/help/customer/display.html?nodeId=201809740> (“Alexa processes and retains your voice input and other information . . .”).

⁵ Jay Stanley, *The Privacy Threat from Always-On Microphones Like the Amazon Echo*, ACLU (Jan. 13, 2017 10:15 AM), <https://www.aclu.org/blog/free-future/privacy-threat-always-microphones-amazon-echo>.

I. ALEXA’S RECORDINGS REQUESTED AT MURDER TRIAL

In the Arkansas murder case, the Amazon Echo came to the prosecutor’s attention because witnesses recalled hearing the device stream music on the night of the crime.⁶ Defendant James Bates had invited two friends—one of them former police officer Victor Collins—to his home, where they watched college football, consumed alcohol, and all used Bates’ hot tub.⁷ Bates claimed he alone went to bed around 1 A.M.⁸ and awoke a few hours later, to find Collins floating facedown in the hot tub.⁹ Collins’ blood-alcohol content was .32 at the time of death.¹⁰ Bates maintains his innocence, asserting that Collins must have drowned in the hot tub. Despite his claim, investigators charged Bates with first-degree murder.¹¹ Investigators grew suspicious based on several signs of a physical confrontation, including injuries to Collins and Bates, a broken shot glass, and dried blood inside the home.¹² Furthermore, another smart device—Bates’ water meter—recorded substantial water usage between the hours of 1 A.M. and 3 A.M., leading investigators to conclude that the patio and hot tub had been hosed down before police arrived.¹³ In the ongoing Bates case, the police believed Alexa stored interactions containing clues about the events of that evening and had sought additional information from Amazon.¹⁴ Although Amazon initially declined to hand over information that Alexa stored on its servers, it did provide the police with Bates’ account information and purchases.¹⁵

II. RECORDING REQUIRES ACTIVATION

Alexa, like other “digital assistants” such as Apple’s Siri and Google Now, only begins recording once The Echo has detected an activation word or phrase like “Hey Alexa . . .”¹⁶ The Echo is always “listening” for key words, but its actual data processing and recording capabilities are limited until the device registers the activation word and activates those capabilities.¹⁷ Once Alexa is

⁶ McLaughlin & Allen, *supra* note 1.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ Billy Steele, *Police Seek Amazon Echo Data in Murder Case (Updated)*, ENGADGET (Dec. 27, 2016), <https://www.engadget.com/2016/12/27/amazon-echo-audio-data-murder-case/>.

¹⁴ *Id.*

¹⁵ *See id.*

¹⁶ Stacey Gray, *Always On: Privacy Implications of Microphone-Enabled Devices*, FUTURE OF PRIVACY FORUM (April 2016), https://fpf.org/wp-content/uploads/2016/04/FPF_Always_On_WP.pdf at 6 (describing speech-activated devices as “recording and transmitting audio only after the microphone detects a ‘key word’ and stop recording automatically after a short amount of time.”).

¹⁷ *Id.* at 5 (Alexa “does not record or retain any audio data, or begin to transmit any data until it is ‘woken up.’”).

activated, a blue light or an audible tone is emitted to indicate that the Echo is recording the interaction.¹⁸ This correspondence is stored on Amazon's servers and can later be replayed or read from a generated transcript, and the user has the option to delete the information from the server.¹⁹ Importantly, while Alexa may be listening to all sounds in its vicinity, it is not actually recording until the activation word is heard.²⁰ An unknowing third-person guest who is in the home would therefore only be recorded when directly interacting with Alexa. It is of course possible for Alexa to mishear a word and construe it as an activation word, thereby leading to a recording of the conversation contrary to the speaker's intention.²¹

In some states, recording interactions and storing them on a centralized cloud without a conspicuous warning is not be permitted when others have a reasonable expectation of privacy.²² This expectation of privacy is comparable to a phone conversation with a banking institution, where callers often receive automated warnings that the conversation may be recorded and used for internal purposes.²³ While Alexa makes no such disclosure prior to answering a user's question, the duty to caution a third party houseguest that a conversation may be recorded should be shifted to the homeowner through an extension of two-party consent laws (to be discussed in more depth below).²⁴

Alternatively, in the near future when Alexa and similar devices become a familiar feature in households, the disclosure requirement may become moot given that the nature of the recording and the mechanism of activation might become common knowledge, meaning there would be an implicit understanding prior to entering a home that visitors could be recorded by the "smart" devices in that home. For example, hotels have already begun exploring the idea of installing Echo devices in rooms.²⁵ Additionally, popular culture, including police shows and movies, may eventually lead to a level of societal awareness where everyone knows that Alexa records its interactions, and that the

¹⁸ Gerald Sauer, *Opinion: Alexa Won't Betray Your Privacy If Amazon Gets Its Way*, WIRED (Feb. 28, 2017 10:00 AM), <https://www.wired.com/2017/02/murder-case-tests-alexas-devotion-privacy/> ("A light on the Echo turns blue to indicate audio is streaming to the cloud.").

¹⁹ Amazon, *supra* note 4.

²⁰ *Id.*

²¹ Stanley, *supra* note 5 (explaining that devices like Echo will sometimes misinterpret sounds as their "wake word" and record random snippets of conversation.).

²² See *infra* note 29 (prohibiting the recording of conversations "without the consent of all parties to a communication").

²³ See Chris Moran, *Wells Fargo To Pay \$8.5M For Recording Calls Without Telling Customers*, CONSUMERIST (March 29, 2016 3:06 PM), <https://consumerist.com/2016/03/29/wells-fargo-to-pay-8-5m-for-recording-calls-without-telling-customers/>.

²⁴ See *infra* note 30 (Some state laws require the consent of every party that is part of the conversation. Homeowners could thus most practically handle the duty to disclose that home guests may be recorded.)

²⁵ See Chris Welch, *The Wynn Las Vegas is Putting an Amazon Echo in Every Hotel Room*, THE VERGE (Dec. 14, 2016 12:53 PM), <http://www.theverge.com/circuitbreaker/2016/12/14/13955878/wynn-las-vegas-amazon-echo-hotel-room-privacy>.

government can legally access these recordings. The Fifth and Eleventh Circuits have similarly held that everyone should know that cell phones generate location data and that the government can access this information without a warrant.²⁶ To analogize, if Alexa becomes so customary that everyone should have knowledge that it records interactions, a court might similarly hold that there is no reasonable expectation of privacy, even for a third-party visitor.

III. RECORDING REQUIRES CONSENT

When Alexa records oral communications, it does so by intercepting the communications and capturing the communications without the guest's consent, which should make the obtained evidence inadmissible at trial.²⁷ Federal and state wiretapping laws place limits on the ability to record phone calls and in-person conversations.²⁸ Illegal recordings run the risk of exposing the source to an injunction against use and also civil damages.²⁹ From a legal perspective, the primary inquiry is whether the recording requires consent by one party or *all* parties in the conversation.³⁰ Federal law and most state laws only require the consent of one person, which can be the same person who is recording the interaction.³¹ On the other hand, some states require that all parties to the conversation consent to the recording.³²

While it is sometimes difficult to determine which state's law will apply when a phone call connects people from different states, users of Alexa would all be in the same room and should therefore be subject to the same state law. Federal law and other "one-party consent" state laws, including Arkansas,³³ permit the recording of a conversation so long as one person who is party to the conversation consents to the recording—or at least has full knowledge that recording is taking place and proceeds anyway.³⁴ It follows that any person who knows that Alexa records interactions and nonetheless interacts with the smart device statutorily consents to being recorded. Even without direct interaction,

²⁶ *United States v. Wheeler*, 169 F. Supp. 3d 896 (E.D. Wis. 2016) ("The Eleventh Circuit and the Fifth Circuit have held that obtaining cell site data from a third-party provider does not constitute a "search" or "seizure" under the Fourth Amendment.") (citing *United States v. Davis*, 785 F.3d 498, 511 (11th Cir. 2015)); *In re United States for Historical Cell Site Data*, 724 F.3d 600, 611–13 (5th Cir. 2013)).

²⁷ *See* 18 U.S.C. § 2515 (1968) ("Whenever any . . . oral communication has been intercepted, no parts of the contents of such communication and no evidence derived therefrom may be received in any trial")

²⁸ *See* 18 U.S.C. § 2511(2)(d) (2008).; *see infra* note 29.

²⁹ 18 U.S.C. § 2520 (2008); 18 U.S.C. § 2521 (2008).

³⁰ Cal. Penal Code § 632.7 (West 2017) (prohibiting the recording of conversations "without the consent of all parties to a communication").

³¹ *See Recording Phone Calls and Conversations*, DIGITAL MEDIA LAW PROJECT (last visited April 8, 2017), <http://www.dmlp.org/legal-guide/recording-phone-calls-and-conversations>.

³² *See id.*

³³ *Arkansas*, Reporters Committee for Freedom of the Press (Aug. 1, 2012), <https://www.rcfp.org/reporters-recording-guide/state-state-guide/arkansas>.

³⁴ *See* 18 U.S.C. § 2511(2)(d).

Alexa can still legally record conversations it overhears so long as at least one party to that conversation knows that Alexa records interactions.

Eleven states go further to protect privacy, including California, which requires the consent of every party that is part of the conversation.³⁵ In these “two-party consent” states, every party to the conversation must consent to the recording, although it may be enough to simply know about the recording without voicing explicit consent.³⁶ Those recorded by Alexa in two-party consent states must therefore know that they are being recorded. A non-consensual recording may nonetheless be used at trial if it is transcribed to notes used to refresh a testifying witness’s recollection.³⁷ However, the witness must have actual recollection of the occurrence of the recorded conversation,³⁸ and statutory damages could still apply.³⁹

There may not be a unanimous consensus as to what privacy expectations visitors to an unfamiliar home have, and individual expectations can certainly fluctuate according to different scenarios, but guests should be, at minimum, entitled to know that Alexa is present in the home and may be recording their interactions.

IV. EXTENDING THE THIRD-PARTY DOCTRINE TO THIRD-PARTIES

In 1979, the Supreme Court in *Smith v. Maryland* established the third-party doctrine, which held there is no reasonable expectation of privacy when information is voluntarily given to third parties.⁴⁰ Does the third-party disclosure doctrine extend to persons who non-consensually relayed their conversations to Amazon because they were recorded by Alexa without their knowledge? In *Smith*, police asked for a pen register, which is a central registry that records dialed telephone numbers, to be installed by the phone company in order to ascertain who was placing threatening calls to a prior robbery victim.⁴¹ After confirming that Michael Smith made the calls, police obtained a house warrant that led to the incriminating evidence against him.⁴² Smith cited the *Katz* case in his defense, insisting he had a reasonable expectation of privacy in the dialed phone numbers, and therefore the search violated his Fourth Amendment rights.⁴³ But the Court rejected his argument, stating that there is no objectively reasonable expectation of privacy in the phone numbers that were dialed because those numbers were voluntarily disclosed to the phone company while knowing they would be recorded.⁴⁴ Importantly, the Court did not treat a human any

³⁵ DIGITAL MEDIA LAW PROJECT, *supra* note 31.

³⁶ *Id.*

³⁷ *Frio v. Superior Court*, 203 Cal. App. 3d 1480 (1988).

³⁸ *Id.* at 1498.

³⁹ *Id.* at 1495–96.

⁴⁰ *Smith v. Maryland*, 442 U.S. 735 (1979).

⁴¹ *Id.* at 737.

⁴² *Id.*

⁴³ *Id.* at 742; *see infra* note 48 (*Katz* recognized a reasonable expectation of privacy in a public telephone booth).

⁴⁴ *Id.* at 743 (“Telephone users, in sum, typically know that they must convey numerical information to the phone company; that the phone company has facilities for recording

different from an automated operator when applying the third-party doctrine.⁴⁵ Thus, despite Amazon's reliance on the recordings being protected under the First Amendment and argument that the government's warrant request is overbroad,⁴⁶ there is a viable argument that parties knowing an Echo device is recording them have no reasonable expectation of privacy under the Fourth Amendment.

In another important Fourth Amendment decision, the Court in *Minnesota v. Olson* held that an overnight guest at a friend's home has a legitimate Fourth Amendment right.⁴⁷ It based its reasoning on society's general belief that overnight visitors to a host's home will not expect to be disturbed by anyone but the host or those the host permits inside.⁴⁸ The *Katz* decision similarly protected a right to not be disturbed in a public telephone booth—which is “a temporarily private place whose momentary occupants’ [privacy] expectations . . . are recognized as reasonable.”⁴⁹

Considering the Court's willingness to find reasonable expectations of privacy with regard to activity taking place within homes,⁵⁰ unless and until Alexa becomes customary and prevalent in homes, third parties without knowledge that Alexa was within their vicinity should have a reasonable expectation of privacy in their conversations under the Fourth Amendment.

CONCLUSION

The third-party doctrine may be extended to guests visiting a home, but existing law should adapt to require the visitor's consent. One-party consent laws will no longer be feasible in this context without an exception, as they would completely eradicate any expectation of privacy when visiting another's home. A more pragmatic approach would be to extend the two-party consent laws to owners of recording devices, whereby the duty to disclose that conversations are being recorded would most efficiently be placed on the owner of the recording device. Consent laws must be modified in order to match the reasonable expectation of privacy of guests visiting another's home. Owners of an Echo

this information; and that the phone company does in fact record this information for a variety of legitimate business purposes.”)

⁴⁵ *Id.* 744–45 (“The switching equipment that processed those numbers is merely the modern counterpart of the operator who, in an earlier day, personally completed calls for the subscriber. We are not inclined to hold that a different constitutional result is required because the telephone company has decided to automate.”)

⁴⁶ *Amazon Moves to Quash Discovery of Echo Recordings In Arkansas Murder Case*, LEXIS LEGAL NEWS (Feb. 22, 2017, 7:54 AM), <http://www.lexislegalnews.com/articles/15006/amazon-moves-to-quash-discovery-of-echo-recordings-in-arkansas-murder-case>.

⁴⁷ *Minnesota v. Olson*, 495 U.S. 91 (1990).

⁴⁸ *Id.* at 99.

⁴⁹ *Katz v. U.S.*, 389 U.S. 347, 361 (1967).

⁵⁰ See *Florida v. Jardines*, 133 S. Ct. 1409 (2013); *Minnesota v. Olson*, 495 U.S. 91 (1990). *But see Minnesota v. Carter*, 536 U.S. 83 (1998) (holding there was no reasonable expectation of privacy when guests were essentially present for business transaction and were only in the home a matter of hours, they had no previous relationship with apartment lessee, and there was no other purpose to their visit.).

device, similar to banking institutions, should have a duty to disclose to their home guests that conversations may be recorded. The duty of disclosure would best be reflected by a uniform application of the two-party consent laws.