United States Senate
COMMITTEE ON THE JUDICIARY
WASHINGTON, DC 20510–6275

Mr. Jeff Bezos
Chief Executive Officer
Amazon, Inc.
410 Terry Avenue North
Seattle, WA 98109

June 11, 2018

Dear Mr. Bezos:

We write regarding Amazon's privacy and data-security practices in light of recent news reports indicating that the company may share private consumer information that potentially puts Amazon users' privacy at risk.

Amazon manufactures an internet-connected device, the Echo, for personal consumer use in the home. These devices and the personal assistant-style software that comes with them are designed to help around the house and make consumers' lives better. Each Echo device comes equipped with Amazon's voice-activated software, Alexa, to perform certain tasks that often require the consumer to verbally communicate commands directly to the device and confirm accurate transmission of information. For example, the Echo can cue up a consumer's favorite song when he walks into a room, adjust the temperature in his home based on his preference, order dinner when he doesn't have time to cook, and help him pay bills on time. Using Alexa, all of this can be done with just a few words.

Unfortunately, recent events have demonstrated that it may take just a few words for Alexa to share with others personal information that the consumer would prefer—and would expect—to be kept private. Last month, a couple in Portland, Oregon discovered that the Alexa software on their Echo device was activated without their knowledge. The Echo turned on, and Alexa was able to capture their private conversation, select an individual from the list of contacts known to the device, and send the audio recording of their conversation to that individual. The couple stated they did not know that the device had turned on, that the software had been voice-activated, or that their conversation was being recorded.

Reportedly, Amazon did not attribute this incident to a device malfunction or a glitch in the system. An Echo device turns on and is activated when it hears the wake word, "Alexa." When the device is on and activated, it will record for a certain period of time, listening for commands to perform. Amazon reported that the device in this case turned on when it misinterpreted a word in the background conversation as "Alexa," and it started recording when it misunderstood a

series of subsequent words as voice commands. While Amazon has stated that the company is evaluating options to make this series of events less likely to occur, we are concerned that the device in this instance performed precisely how it was designed. Without prompt and meaningful action, we expect that additional instances like the one summarized above will happen again.

The increasing popularity of in-home, internet-connected devices and voice-activated technologies raises questions about the types of data they collect, store, and share, and the degree to which consumers control their personal information. Companies, like Amazon, that offer services through these devices must address these concerns by prioritizing consumer privacy and protecting sensitive personal information.

As Chairman and Ranking Member of the Judiciary Subcommittee on Privacy, Technology and the Law, we have a longstanding interest in the privacy and security of consumers' personal data, including information collected by in-home, internet-connected devices and voice-activated technologies.

We therefore request that Amazon provide answers to the following questions.

1. Please indicate the number of complaints you have received from consumers reporting that an Amazon Echo device has improperly interpreted a command.

2. Regarding the technical design elements of Echo devices and Alexa software:

    a. Is an Echo device designed to send a user's voice data from the device to an Amazon-controlled server?

        i. When and how frequently does the device send voice data to Amazon?

        ii. How long does Amazon store and retain voice data?

        iii. Please explain any and all technical design elements that Amazon has created to anonymize user data collected and transmitted to Amazon-controlled servers by Echo devices, including how each of those elements is designed to protect consumers' privacy.

    b. Before being activated by a wake word, is an Echo device designed to be always listening for a wake word?

    c. After being activated by a wake word, how long is the Echo device designed to listen for a command to perform?

    d. Is the Echo designed to record background conversations while it listens for a command?

        i. If so, for how long?

e. Is the Echo designed to record speech after it has identified a command?

    i. If so, for how long?

f. Is the Echo designed to store pre-command or command recordings, either on the device or in a remote location like the cloud?

    i. If so, for how long?

g. Is the Echo designed to allow the consumer to delete stored recordings?

    i. If so, please describe what steps the consumer must take to do so.

h. Is the Alexa software designed to use artificial intelligence or machine learning to better identify and understand a consumer's commands?

    i. If so, does Alexa rely on a comprehensive collection of stored recordings associated with that device to do so?

i. After Alexa has performed a command, is the device designed to power off or deactivate its listening feature?

    i. If so, how long after the command has been performed does the device remain powered on and activated?

j. Is the Alexa software able to be modified by a third-party software developer?

    i. If so, in what ways can a third-party developer currently modify the Alexa software?

    ii. Does Amazon plan to limit a third-party developer's ability to modify the software?

    iii. Does Amazon plan to employ a third-party developer to modify or improve certain software design choices?

    iv. What are some of the software design choices that Amazon does not intend to modify?

3. Please describe any and all purposes for which Amazon uses, stores, and retains consumer information, including voice data, collected and transmitted by an Echo device.

4. Please describe any and all policies Amazon follows to ensure that consumer information, including voice data, collected and transmitted by an Echo device is protected from misuse or abuse.

5. What steps is Amazon taking to minimize the risk that consumer information, including voice data, is not misinterpreted or misused by Echo devices?

6. What steps is Amazon taking to ensure consumer information, including voice data, is not shared without consumers' consent?

We appreciate your prompt attention to this matter.

Sincerely,

JEFF FLAKE
U.S. Senator

CHRISTOPHER A. COONS
U.S. Senat