

## PLAGIARISM SCAN REPORT

Words 700 Date April 19,2021

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88%

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30

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Many of us have heard the phrase 'Hey Siri' or 'Okay Google', be it via advertisements or on our mobile phones, seldom paying attention to these features, which help us with simple tasks on our mobile devices. These are called Virtual Personal Assistants (VPAs), or simply virtual assistants. As the name suggests, these are personal assistants within our phones, that help us with tasks such as setting the alarm, doing calculations or performing a quick search. Not only phones, but these assistants are also being deployed in smart home devices and smart speakers. Smart home devices are being used to monitor and control lighting, heating and security systems, thereby creating a home automation system. Some commonly known virtual assistants include Siri by Apple, Google Assistant by Google, Alexa by Amazon, Cortana by Microsoft, Blackberry Assistant by Blackberry and Bixby by Samsung. VPA is a computer program that uses artificial intelligence and helps start a conversation with humans through auditory or textual methods. To achieve human-like interaction, it includes many technologies like machine learning, natural language processing, cognitive computing, speech recognition and handwriting recognition.

Virtual personal assistants deployed in smart devices are continuously switched on, since they monitor conversations for voice commands. With such home devices monitoring different home activities, they have enormous power to access one's daily household conversations, which may include private and sensitive information. This may lead to privacy breach and information leakage. One such incident took place in the house of a family residing in the United States of America, and the incident is now famously referred to as the Alexa Scandal.

#### ## Amazon Alexa Scandal

A couple in Portland, Oregon received a nightmarish phone call about their Echo devices getting hacked. One of the Amazon Inc. Alexa-powered Echo devices in their home had covertly sent recordings to the caller without the couple's permission. The caller, who happened to be an employee of the husband, was on the couple's contact list. The couple had Amazon's voice-activated devices throughout their home, to control the heating, lights and the security system.

#### ## Amazon's Explanation

An Amazon spokesperson was quoted, saying, "Amazon takes privacy very seriously. We investigated what happened and determined that this was an extremely rare occurrence. We are taking steps to avoid this from happening in the future" and gave the following explanation: "Echo woke up due to a word in the background conversation sounding like Alexa. Then, the subsequent conversation got recorded as a send message request. At which point, Alexa said out loud, 'To whom?', and the background conversation got interpreted as a name in the customer's contact list. Alexa then asked out loud, [contact name], right? Alexa then interpreted the background conversation as right. As unlikely as this string of events is, we are evaluating options to make this case even less likely."

Thus, VPAs can be helpful to us, but at the same time, there are problems related to them that make us think about whether they are reliable or not. Whenever one uses the services of a VPA, they might be passing along confidential information and records, which potentially exposes one's details such as contact list, names or location, and people are unaware of the data being stored or deleted. Many cases of information getting leaked from online databases have been witnessed in the past, that pose serious security threats. Virtual helpers like Siri and Cortana are helpful, but do not always keep our questions private. As these assistants require an internet connection to function, the risk multiplies if they have access to passwords and sensitive information from other apps linked to them.

Virtual assistants may be the new trend and are helpful, but data security, privacy breach, lack of reliability, limited responses and a high price highlight the negative aspects of such assistants, which are hard to ignore. They cannot replace tasks done manually by humans, and are unreliable in their functioning and responses. Privacy and data

security are sensitive areas about which most people are unaware and uninformed. Security threats and data phishing might take place by continuously using such devices. All these negative aspects have consequences in the real world, and thus VPAs must be used with caution.

Sources	Similarity
<p><a href="#">Amazon Echo Takes its Name Literally   by AnthroPunk, Ph.D.   ...</a></p> <p>· We investigated what happened and determined that this was an extremely rare occurrence. We are taking steps to avoid this from happening in the future." It is hard to imagine that Amazon would ...</p> <p><a href="https://medium.com/itp-musings/amazon-echo-takes-its-name-literally-8af6f0a8a088">https://medium.com/itp-musings/amazon-echo-takes-its-name-literally-8af6f0a8a088</a></p>	5%
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