

What parents & carers need to know about...

AMAZON ALEXA

Alexa is an artificial intelligence (AI) software assistant created by Amazon in 2014 through which smartphone, tablet and smart device users can issue voice commands and ask questions in a range of languages by issuing the 'wake' or activation word Alexa. It can be accessed in several ways and is integrated into a growing number of 'smart' products including speakers, phones and clocks. Once viewed as expensive gimmicks, Alexa is now one of the most used voice assistants in the world.

Privacy concerns

By their nature, AI voice assistants involve the collection of large amounts data. How this is stored and the uses to which it is put has aroused growing concern. Experts also worry about who has access to voice recordings, which in 2019 the company admitted sometimes included employees of Amazon and its commercial partners. There is also the more general anxiety that internet voice assistants might record private conversations and not only commands or questions.

Age-inappropriate content

Using Alexa as a speaker to play your favourite songs is one of the most popular uses for the device. However, without any parental controls in place, Alexa won't filter the lyrics so it's possible that children could hear something they shouldn't. Similarly, Alexa isn't always able to identify who or what age the person is who is issuing a voice command so if children ask a question which might not be age-appropriate, the chances are they're likely to get an age-inappropriate answer.

18+

Insecure devices

The devices and their background services are another worry, which can have software vulnerabilities that make them insecure in complex ways. In 2020, for instance, researchers discovered that the services to which Echo products connect were insecure, potentially allowing hackers to access personal information such as voice conversations. In 2017, researchers were able to directly hack an Amazon Echo to send audio to attackers. Amazon has a good record of fixing security problems when they are discovered but it is never possible to find every problem.

Changing Tech Relationships

In a 2019 report published by the Centre for Data Ethics and Innovation, concerns were raised on the disruptive effect that voice assistants and smart speakers, such as Alexa, were having on the way that children interact with technology. From building sentiment and forming relationships which could encourage them to overshare personal details, to a fear of consuming content driven by commercial algorithms and an inability to assess reliability, how Alexa operates could considerably change children's relationship with technology in both the short and long term.



Safety Tips

Check privacy settings

It's possible to delete Alexa's recordings either entirely, or for a given period, with the instruction "Alexa, delete everything I said." Alternatively, set up the Alexa account privacy settings for that account to delete recordings every three or 18 months. Existing recordings made using the Alexa app can be deleted via Settings > Alexa Privacy > Review Voice History. A final tweak is to turn off the setting that allows Amazon to 'use voice recordings to improve Amazon services.'

Control voice input

If privacy is paramount, one idea is to locate Echo devices in only one room rather than having several throughout the home. In addition, Alexa can be activated only when it is needed by manually turning off the microphone on Echo devices between use. Users can tell when Alexa is in listening mode as an indicator light should appear or an audible tone should sound.

Set pin code

Amazon account users can order items from the company using a voice command, for example "Alexa, buy some toilet paper." To counter accidental use or misuse and avoid racking up big bills, this can either be disabled or protected with a PIN code (it should be noted that this is an audible PIN however, so is not as secure as a typed code).

Look out for 'Skills' apps

A big appeal of Alexa is that thousands of companies have created apps, which Amazon calls 'skills', that add useful capabilities, often integrations with other products or services. These are installed by asking Alexa to 'open/play/start' the skill. For example, a travel skill might be installed to check and automate checking train times and hotel bookings. However, it's important to remember that each of these might have a different privacy policy. A cautious approach is to install as few as possible, de-installing ones no longer in use.

Talk about technology

As more and more homes install voice assistants and smart speakers such as Alexa, it's a good idea to talk to children about safe use of technology. Talk to them about what Alexa can be used for, how useful it can be and how to use it properly. Use it together to begin with and discuss any concerns they might have. Always make sure that children know to never share any personal or sensitive information and that if they need to talk about anything, they should always speak to a trusted adult.

Meet our expert

John E. Dunn has edited and written for numerous computer and technology magazines since the early 1990s, most recently Which Computing, The Register, Forbes.com, Techworld, Computerworld and Naked Security. He is a specialist in online cybersecurity and cybercrime and their growing effect on education, young people and the public.

