

Amazon is amongst the largest organisations utilizing Natural Language Processing (NLP), with an overt example being the Amazon Alexa system. Alexa uses a machine-learning model to help it recognise keywords, comprehend complex questions, and understand accents and dialects (Amazon, 2023). In its most basic form, users ask the app/ device a question, which Alexa will respond to appropriately (Forbes Contributor, 2023). Alexa does this by recognising words said by the user, and 'then consults a database containing various words' pronunciations to find which words most closely correspond to the combination of individual sounds' (Gonfalonieri, 2018). To do this, Alexa translates the audio into a text format through a process called Automatic speech recognition (Hardesty, 2022). Concerns often arise regarding individuals' privacy, with many worried that the Amazon device is continuously monitoring their conversations. However, due to keyword recognition, the device is only activated when it hears its name; 'Alexa' (Amazon, 2023). Alexa, amongst other NLP products, is becoming common in our everyday lives, with many of us using them to play music, tell us the weather forecast, and help us plan journeys, among other helpful attributes. Increasingly, NLP products are becoming linked with the wider Internet of Things, such as smart bulbs and meters. While this may make life a little bit easier for some, it can have a much wider implication for those with disabilities and mobility issues. For example, an individual with mobility issues can control their lights, heating, blinds, and other household commodities from the comfort of their seat, thereby supporting their independence (Times of India, 2022).

Amazon (2023) *How Alexa works: Wake word* [Online] Available from:

<https://www.amazon.com/b?ie=UTF8&node=23608571011>

Forbes Contributor (2023) *What Companies Are Fueling The Progress In Natural Language Processing? Moving This Branch Of AI Past Translators And Speech-To-Text* [Online] Available from: <https://www.forbes.com/sites/qai/2023/02/06/what-companies-are-fueling-the-progress-in-natural-language-processing-moving-this-branch-of-ai-past-translators-and-speech-to-text/?sh=7e8a35894a8f>

Gonfalonieri, Alexandre. (2018) *How Amazon Alexa works? Your guide to Natural Language Processing (AI)* [Online] Available from: <https://towardsdatascience.com/how-amazon-alexa-works-your-guide-to-natural-language-processing-ai-7506004709d3>

Hardesty, Larry. (2022) *The engineering behind Alexa's contextual speech recognition* [Online] Available from: <https://www.amazon.science/latest-news/the-engineering-behind-alexa-contextual-speech-recognition>

Times of India (2022) *Watch: How Museum of Possibilities uses Echo smart speakers* [Online]

Available from:

http://timesofindia.indiatimes.com/articleshow/95940198.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst