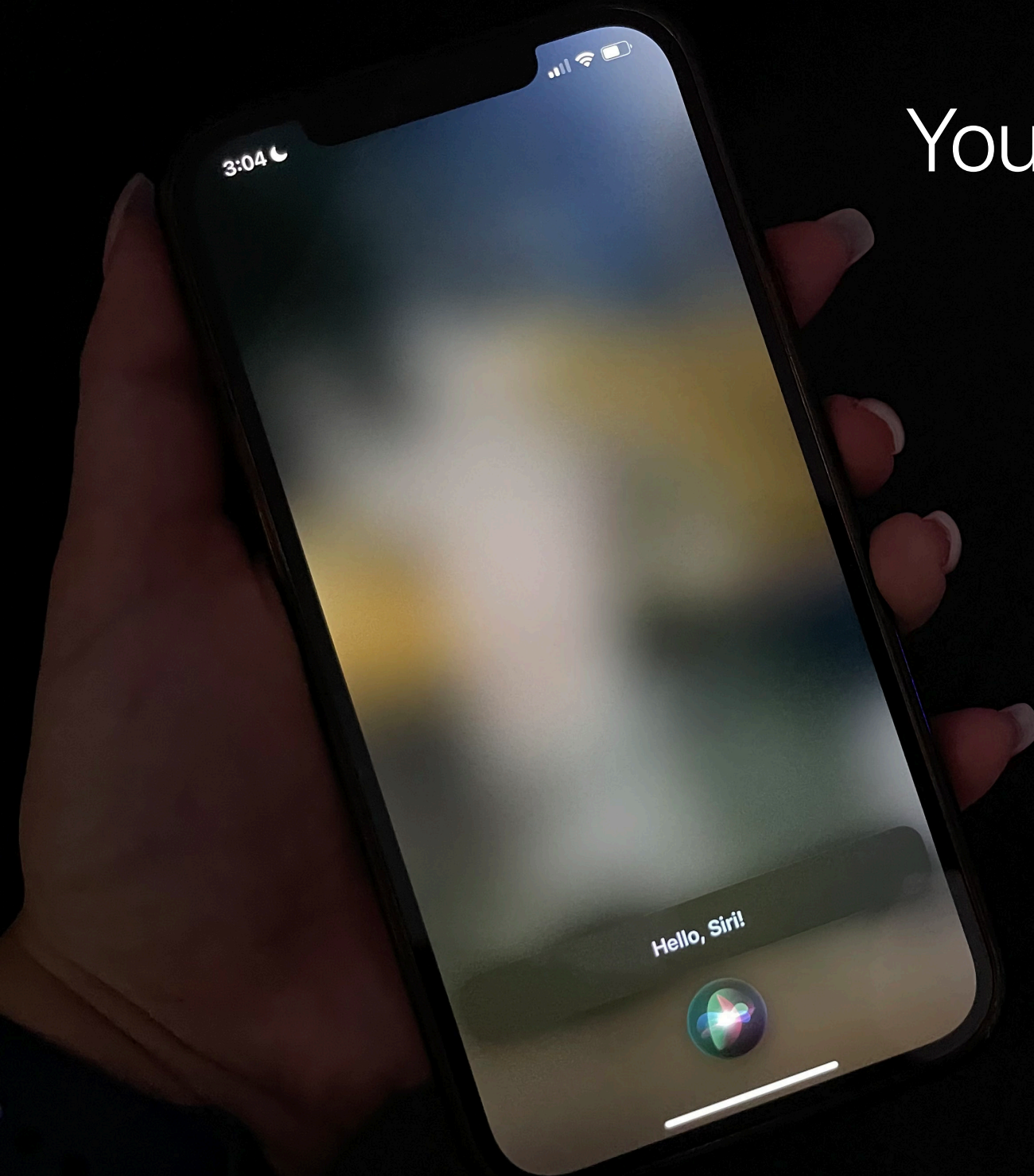*Courtney Nader*

You Say It, Siri Does It

Having your own virtual personal assistant
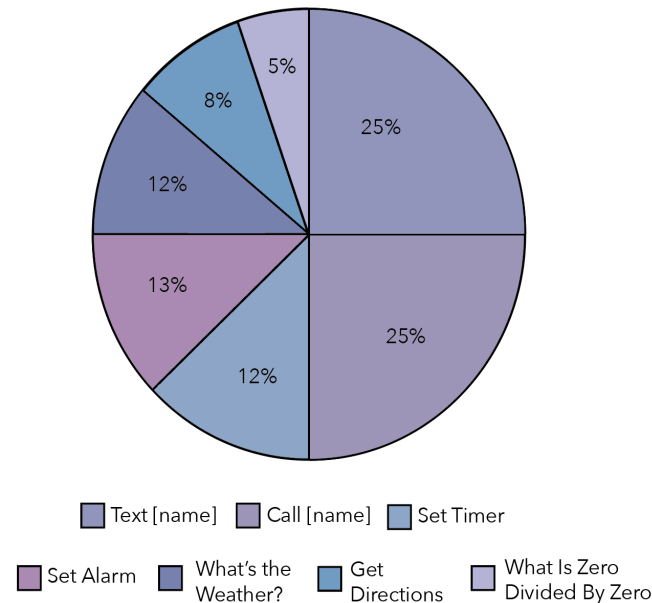sounds great, but how does it actually work?

You Say It, Siri Does It

Courtney Nader

Voice recognition is a fascinating technology that has been created beyond our understanding. Siri in particular has shown to be very helpful, and is known as 'your own personal virtual assistant'. The success of this technology helps individuals in completing tasks electronically and proves to be helpful in many ways. How Siri works, and the systems and technologies behind it, are intriguing and will be discussed throughout this article.

How Siri operates is beyond our understanding and unique to the Apple experience. Siri doesn't just instantly understand what its user is asking, it takes time for the request to be processed, understood and then answered through the behind the scenes of Apple. When a user puts in a request to Siri, Siri records the users sound waves and frequencies as per each individuals voice. These sound waves and frequencies are then converted into code. This code is broken down into different categories to identify different elements of the request such as keywords,

Legend:
- Text [name] — 25%
- Call [name] — 25%
- Set Timer
- Set Alarm — 13%
- What's the Weather? — 12%
- Get Directions
- What Is Zero Divided By Zero — 5%

(8%, 12% also shown)

phrases and any other patterns. This data gets put into the Apple algorithm and is sorted through infinite combinations of sentences and keywords to determine what the initial request actually means. Once this is established, Siri determines whether the information that is needed to be used can be found in the data base or online servers. This is when Siri will respond with her findings and give the answer to your initial request. It is a fascinating process and gives each user accessibility to their own virtual personal assistant through the unique Apple experience.

Looking beyond just how Siri works, the system it uses is useful in ensuring optimal performance for each individual all around the world. Apple have used what is called an Ontology based system for Siri, which is a top-down outlook, meaning that the system requires the upfront exertion of real human expertise, which must be carefully designed to provide the best possible performance. This is best suited for the initial deployment of the

system that is being used, as it allows for Siri to have a better understanding of requests received, and also more clear answers to be given, when being used in multiple languages. As the user group of Apple is such a wide variety of people, this system is needed for the success of Siri as it is able to adapt to different people around the world and all the languages they may speak.

The way Siri was curated by Apple is due to the constant creation of new technologies. Siri was initially created through a combination of artificial intelligence and the use of natural language processing. As discussed earlier, when speaking to Siri and asking for a task to be done, your voice is collected and then converted into a data file which is sent to the Apple servers. When doing this, it is trying to account for your accent, dialects, and any other speech difficulties or differences individuals may have. After converting your voice into data, it is sent to apple servers for

processing, to better understand what exactly it is the individual is asking Siri to do. This server has a very large database of frequently asked questions which mostly include completing tasks such as texting, calling and setting timers and alarms, and probable answers or solutions to these questions. Your initial spoken words are sifted through these questions and probabilities of answers until there is a solution to the initial request found. Siri is used on average at least twice a day, so this combination of technologies allows for endless possibilities with Siri, as the technology keeps developing, the capabilities of Siri are expanding.

To conclude, voice recognition, in particular Siri, is seen as a more complicated technology than Apple users may think. The creation of Siri and the real technology and systems behind how voice recognition for Apple truly works is intriguing. To see that it is able to adapt to each individual and understand different languages,

dialects and speech difficulties, it is still able to give each user their own unique Apple experience.

How Often Is Siri Used?
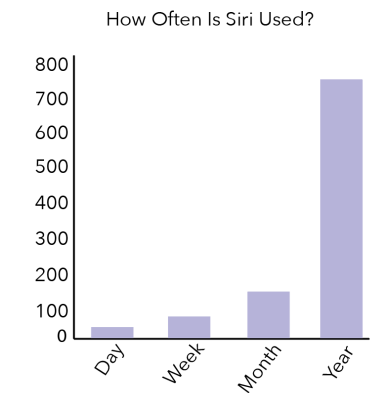
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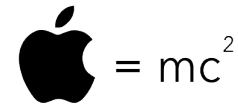
How Siri Works

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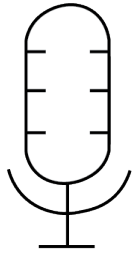
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Keywords

Phrases

Patterns

 = mc^2

∞

Combinations

💡