The Names of Intelligent Personal Assistants | Neon Roots
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Feminine, Sexy, And Pretty Darn Weird: The Names of Intelligent Personal Assistants

Once, they were the exclusive domain of science fiction writers – the dream of a society entranced by the possibilities of technology, and a symbol of a far-away technological utopia where humans need not busy themselves with menial, unimportant tasks. Now, they live in our pockets and we're mildly annoyed when we hold the home button down too long and accidentally summon them.

But no matter their current glitches and shortcomings, Intelligent Personal Assistants – or IPAs – are here to stay. Whether or not we realize it, IPAs and the artificial intelligence software that supports them perform thousands of our day-to-day tasks, making everything from finding a restaurant to scheduling a meeting an easier process.

How Intelligent Personal Assistants Enhance Daily Life

We may or may not recognize it, but artificial intelligence – the same programs and algorithms that enable virtual assistants like Siri – automates almost every area of our life. Google's search algorithm draws on your current location and past history when showing you search algorithms, and your iPhone uses a feature called Proactiveto learn your day-to-day habits and suggest different apps at different times of the day. If you like listening to music on your morning run, for example, your iPhone will actually show you an icon for the music app you use in the lower left hand corner of the lock screen – something it does because it's analyzed what you normally do after plugging your headphones in in the morning.

Overcoming The Big Hurdle: Language

But analyzing use data and providing recommendations like that is relatively easy, and it doesn't quite give the feel of a "personal assistant." The real task – and the real difficulty – for IPAs is recording, understanding, and effectively responding to human speech.

While we take them for granted, our hearing and language systems are remarkable feats of computation

While understanding language is relatively easy for most four-year-olds, decoding human speech is a remarkably complex task. In fact, decoding a verbal request requires more than 100 times as much processing power as responding to a textual search request. This is because while our ears have been honed by millions of years of evolution to pick up and decode human speech, IPAs only have built-in microphones, and these microphones do little to delineate human speech from surrounding noise.

To solve the problem, companies are turning to the cloud. Apple's Siri uses vast data processing centers to analyze and understand the spoken queries of iPhone users, and each sample of recorded voice is kept and analyzed to help Siri's algorithm learn to understand the human voice. Baidu's new IPA, Duer, keeps every piece of recorded audio and feeds it back into the machine learning algorithm it uses to understand speech, helping it get smarter with every question and request.

Where IPAs Are Going

In spite of all the advances, though, today's IPAs are infamously limited in capability. Consumers and tech writers alike complain of the problems with Siri and lament the limitations of Cortana.

But in the not-too-distant future, consumers may be singing a different tune.

The first problem with IPAs is purely processing power and capability: right now, they're all relatively new technology and don't always understand how to process, understand, and properly respond to human requests.Moore's Law tells us that shouldn't be a problem for too long.

The second problem is integration: Siri, Cortana, and Facebook's M are limited because they're essentially closed books. Yes, they can do an internet search and answer a question about where the closest restaurant is, but they can't also make you a reservation there and call you an Uber at the right time.

But when IPAs get a little more open, things will change quickly. Viv, a new IPA from the creators of Siri, aims to accomplish this – and it claims that it's IPA may be some 10,000 times more powerful than others. By making a more open IPA program and allowing it to interface with the APIs of other companies and services, Viv wants to create a product that can do *everything* for you: it can answer your questions, yes, but it can also call the Uber, make the reservation, or send the gift *for* you, all with just a command of your voice.

A New Age For IPAs

In fact, the rise of IPAs will likely usher in a new era in how we do businesses. At Tom Anthony argues in abrilliant blog post on Moz, IPAs may one day replace business websites.

Before the internet, the main way that consumers interacted with companies was over the phone: you'd call a company to find out their hours, check if they had a product, or make a reservation or appointment.

The Internet changed all of that. Instead of using a phone, all consumers have to do is go on a company's website to find out virtually any information they need – information they used to need to place a call to find.

IPAs have the potential to bring about another paradigm shift in business to consumer communication. Instead of having to find and search through a company's website, IPAs allow you to just ask the question to your phone.

"Does the cafe near my house serve flat whites?

"Does my doctor have any availability for an appointment this Thursday?"

"Is the new iPhone out yet?"

The IPA can tell you this information, sure. The difference is that with an open IPA that integrates with other businesses, the IPA can actually place an order, reserve an appointment, or buy the product for you. All of a sudden, consumers aren't interfacing with companies through official websites. They're doing it all through an automated intelligent personal assistant.

But Seriously, What's With The Names?

While the days of a super powerful IPA are still at least a few years away, in time, they'll likely become the robust, powerful agents that science fiction writers dreamed of. But there's one thing that's even more perplexing than their abilities (or lack thereof): what's with all the weird names?

Seriously Sci-Fi

From Siri and Cortana to and Mycroft and Maluuba, IPAs tend to have pretty out-there names. So why is that? After all, if you're going to have an assistant, wouldn't it be easier to call them "John" or "Sarah," names that anyone (or at least any American) can easily understand? It might be, but there are some key reasons why IPA names tend to be so sci-fi.

In some cases, the strange names have relevant meanings. Siri, for instance, is a popular Norwegian name that translates to "beautiful woman who leads you to victory," and Cortana is a reference to the AI in the popular Halo video game series. In a broader sense, though, having a strange and distinctive name helps to set the product apart. Calling an IPA Siri or Cortana instead of Sarah or Courtney helps to imbue it with uniqueness, making it sound exotic, exciting, and distinctly memorable. A more traditional name might tell users that there's nothing special about the product.

Girl Powered

Another prominent trend among IPAs is that they're predominantly female. Clara is the name of a new automated email scheduling assistant, Maluuba is an IPA that's seeking to understand children's stories to better understand human speech, and we're all familiar with the feminine voices of Siri and Cortana. So why all the ladies? One answer is that it conforms to cultural stereotypes. IPAs perform largely secretarial work, doing things like scheduling meetings and looking up information, and their feminine names fit the sexist stereotype of a female secretary.

But even more important, the futuristic names draw on a century of cultural history. They are largely intentional references to those hyper-intelligent personal assistants that science fiction writers of the past dreamed up – the HALs, the Roseys, and Wall-Es of our fictional vernacular. Having these distinctive, futuristic names signals to users that for IPAs, the future is now. And while they may leave a lot to be desired today, the IPAs we've already come to know – the Siris, Cortanas, and Maluubas – are likely to fulfill the promise of their possibility one day in the not too distant future.