

The Future of Self-Service:

Virtual Assistants, Speech Recognition and the Internet of Things

The history of the Internet has been a story of personal empowerment. Today, empowered customers, especially those within the younger demographics, are more than happy to resolve problems for themselves, valuing the convenience, speed and anonymity offered by web self-service.

In 2015 Forrester Research Inc. indicated that “Web self-service interactions overtook all other channels. For the first time in the history of our survey, respondents reported using the FAQ pages on a company’s website more than speaking with an agent over the phone”.¹ The future of customer service is thus quite clearly self-service. However, what is the future for self-service itself?

Intelligent Virtual Assistant

Intelligent virtual assistant (IVA) use is seeing rapid adoption across multiple industry sectors. IVAs attempt to humanize web self-service by delivering knowledge and information to customers via a human-like interface. IVAs can serve thousands of customers at once, are available 24x7 across all channels, and the experience is consistent.

However, the predominant IVA experience of today — typing in questions and receiving spoken answers via a computer-generated assistant — is unsatisfactory, unrealistic and, according to some, slightly creepy. Having a computer-designed, cartoonish image acting as the face of your organization is also a risk to your brand.

In addition, investing in the current generation of IVAs without improving the core components of self-service, such as knowledge management, escalation management and customer journey optimization, are a recipe for customer dissatisfaction and limited adoption. Today, many organizations are using IVAs as an opportunity



for differentiation and a visual extension of their basic web self-service technologies rather than as a key customer engagement channel.

We are still at the nascent state of IVA development. The next step in its development will be to make the customer experience more realistic, with speech recognition replacing the requirement for users to type questions.

Speech Recognition

Speech recognition has the potential to transform the self-service user experience, making it more natural and, most importantly, hands free. Speech recognition can deliver service to users anywhere and in any situation or context. We are already seeing IVA vendors augmenting their solutions with speech-recognition capabilities to offer voice-driven information search and retrieval, such as video on demand. Self-service will eventually move beyond voice-driven search to deliver the ability to trigger and interact with processes using speech.

¹ Forrester Research, Inc., *Contact Centers Must Go Digital Or Die*, by Kate Leggett and Art Schoeller, April 3, 2015

Web Self-Service and the IoT

Many view the IoT in terms of smart devices, such as thermostats, refrigerators or wearables. However, the real power in IoT is in the data created by the sensors on the smart devices. Organizations that can utilize this data and deliver services based on it will dominate the IoT market. Already some of the most successful commercial IoT solutions are providing services rather than devices to consumers. In-car telematics is now widely used in the insurance industry to monitor driver performance and adjust insurance premiums accordingly. In medicine, heart implants can send data to physicians to identify any slowing of a heart rhythm or rapid heartbeats. IoT can also be used within smart cities to provide services to constituents that can, for example, reduce congestion, optimize energy use and support public safety. The common theme in all of these examples is that the IoT is being used to provide services with little or no input required by the individual. The IoT and the devices themselves are, for the most part, invisible. Successful IoT solutions will remove complexity from our lives rather than add to it, working in the background and interrupting us only when a decision is required.

The trigger and interaction method for all of these IoT services will be speech. With so many potential IoT devices and services, voice control provides a simpler, quicker and more convenient method of interaction rather than an app and a UI.

The Personal Virtual Assistant

Self-service will eventually break out of the enterprise and become a key part of our personal lives. Mobile phone vendors have been working on personal assistants

since almost the development of the first app. Your smartphone comes preinstalled with apps, such as a calendar, reminder, notes, password manager, family location and account status services. Despite the availability of millions of apps, the majority of us only use a few apps daily. Speech recognition software will be the catalyst for turning these seldom-used apps, sometimes referred to as bloatwear, into something more useful and easier to use.

The personal virtual assistant will be the ultimate self-service tool that brings together multiple technologies, including speech recognition, knowledge management, wearables, IoT, complex event processing and artificial intelligence. This is imminent. Today, for example your smartphone can scan your email to see if you have a flight coming up, then use the information to alert you when it's time to leave for the airport.

Booking a restaurant or a flight, insurance renewals, price comparisons and health monitoring – all of these are important yet mundane processes we perform on a daily basis that most of us would be happy to outsource to a personal assistant.

Conclusion

Self-service is the future of customer service, and its evolution is inextricably linked to developments in speech analytics and the IoT. Self-service will go beyond the simple search and delivery of information to the delivery of more complex customer service processes. We are looking at a post-app world where information and data from multiple sources is combined to deliver a service. Then when you need information or a service, you'll just ask for it.

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