

«My digital helpers will handle it»

Keywords

«Digital helpers, IoT (Internet of Things), internet of voice, digitalization, services, artificial intelligence, smart-systems, language assistants, computer-based assistance, web-identity, private data»

I've been passionate about digital solutions with a direct influence on my life from an early age. It all starts with my first «Palm» in the early 2000s, an electronic device, which was basically made for organizing contacts, notes, and appointments. So really important stuff, for me as a ten-year-old boy. This passion holds on until today and expands its scope in many different areas.

Today my home lighting is widely optimized. The lights turn on automatically when I get home or when its time to wake up. And if I leave my apartment, they turn off. I can control the luminous intensity only by using my voice. My home lighting is so smart, that it also recognizes to simulate my presence, to keep burglars away, if I'm longer not at home. This is just one of many examples for digital helpers, which now make my everyday life easier and more comfortable.

All this is only possible because the devices and services are capable of communication. They communicate with us, they communicate with other systems. In this way, they get access to many different information sources and touch-points.

We are now writing the age of digitization. Especially in the field of IoT (Internet of Things) communication-enabled systems are constantly evolving. So all these devices are going smart, networked and communicative. Digitization is a huge trend that has not just started yesterday, but it has steadily expanded its scope in recent years. Many consumers enjoy numerous new possibilities of IoT. Especially devices and services like wearables, home-automation, data-tracking and payment transactions are strongly represented commercially.

I'm really sure we are still at the beginning. These digital and smart helpers will soon be able to take on significantly more important tasks. They will be able to empathize better with human thinking patterns. That creates completely new fields of application.

For example, language assistants still have to learn to truly understand and speak the human language. Artificial intelligence is a key factor here. With their help, a language assistant can recognize the context of a request and specify it by asking. This must include the surrounding text, the metadata, whole sentences and not just keywords. The paradigm shifts away from just catching words, to the natural conversation. If this step is done, digital helpers will be able to provide much more complex problems and human assistance, than for example these days «Siri» and co. does.

I really want to go deeper in that field. Especially on the topic «Internet of Voice» related to artificial intelligence, I see much potential. Where are possible new opportunities? How can we get to a whole new level of computer-based assistance?

Artificial intelligence is a controversial topic. More digital outsourcing also means more access to private and sensitive data. What could be there the risks? How will the exponentially growing private data amount in the cloud in future handle? What will become new control mechanisms, to ensure that only the right instances get access to them?

Possible research questions could also include:

- How far and deep can computers really understand human needs?
- Where are possible new opportunities of computer based assistance?
- What could be concrete application purposes?
- How to deal with the infinite amount of sensitive cloud-data?

I am very motivated to deal with these questions and dig deeper in this field. We live in an exciting time full of innovation and I am curious to see where future developments will bring us.

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