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AI Based Virtual Assistance on Raspberry PI

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Abstract: *Artificial intelligence (AI) technologies are one of the new technologies with new complicated features that are emerging at a fast pace. Although these technologies seem to be extensively adopted, people do not intend to use them in some cases. Technology adoption has been studied for many years, and there are many general models in the literature describing it. However, having more customized models for emerging technologies upon their features seems necessary. In this study, we developed a conceptual model involving a new system quality construct, i.e., interaction quality, which we believe can better describe adoption of AI-based technologies. In order to check our model, we used a voice assistant system (VAS) technology as an example of this technology, and tested a theory-based model using a data set achieved from a field survey. Our results confirm that interaction quality significantly affects individual's trust and leads to adoption of this technology. Voice assistants are software agents that can interpret human speech and respond via synthesized voices. Apple's Siri, Amazon's Alexa, Microsoft's Cortana, and Google's Assistant are the most popular voice assistants and are embedded in smartphones or dedicated home speakers. Users can ask their assistants questions, control home automation devices and media playback via voice, and manage other basic tasks such as email, to-do lists, and calendars with verbal commands. This column will explore the basic workings and common features of today's voice assistants. It will also discuss some of the privacy and security issues inherent to voice assistants and some potential future uses for these devices. As voice assistants become more widely used, librarians will want to be familiar with their operation and perhaps consider them as a means to deliver library services and materials.*

Keywords: Human Computer Interaction; Internet; Libraries; Software Agents; Speech Recognition; Voice Assistants

REFERENCES

[1]. Jiang, J.; Hassan Awadallah, A.; Jones, R.; Ozertem, U.; Zitouni, I.; Gurunath Kulkarni, R.; Khan, O.Z. Automatic online evaluation of intelligent assistants. In Proceedings of the 24th International Conference on World Wide Web, 18–22 May 2015; International World Wide Web Conferences Steering Committee: Geneva, Switzerland, 2015; pp. 506–516
[2]. Piyush Vashishta, Juginder Pal Singh, Pranav Jain and Jitendra Kumar, "Raspberry PI based voice-operated personal assistant", International Conference on Electronics And Communication and Aerospace Technology ICECA, 2019.
[3]. Salvatore Gaglio, Giuseppe Lo Re, Marco Morana, and Claudio Ruocco (2019), Smart Assistance for Students and People Living in a Campus, IEEE Computer Society.
[4]. Subhash S, Prajwal N Srivatsa, Siddesh S, Ullas A, Santhosh B (2020), Artificial Intelligence-based Voice Assistant, IEEE.
[5]. Rahul Kumar, Garima Sarupria, Varshil Panwala, Smit Shah, Nehal Shah (2020), POWER EFFICIENT SMART HOME WITH VOICE ASSISTANT, IEEE – 49239.
[6]. Jianliang Meng, Junwei Zhang,Haoquan Zhao (2012), Overview of the Speech Recognition Technology, IEEE.
[7]. Canbek, N.G.; Mutlu, M.E. On the track of artificial intelligence: Learning with intelligent personal assistants. J. Hum. Sci. 2016, 13, 592–601.
[8]. Bill Lubanovic, Introducing Python :Modern Computing in Simple Packages, 2nd Edition, O'Reilly Media, 2014.
[9]. Chelba, Ciprian, et al. "Large scale language modeling in automatic speech recognition." arXiv preprint

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arXiv:1210.8440 (2012).

[10]. S. Tulshan and S. N. Dhage, "Survey on Virtual Assistant: Google Assistant Siri Cortana Alexa:4th 2018" in Revis. Sel. Pap. Surv. Virtual Assist. Google Assist., January 2019.