JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

THE VOICE ASSISTANT'S SYSTEMETIC LITERATURE REVIEW

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People are starting to use voice assistants like Siri, Alexa, Google Assistant, Cortana, and Bixby more and more. Voice assistants have a significant impact on how people carry out their jobs, use services, and engage with organizations. As a result, they possess considerable economic and societal potential. The voice assistant literature is reviewed in this article. Speech recognition, semantic webs, diagnostic tools and natural language processing are some of the developments that define the voice assistant.There is currently a wealth of literature on this subject. The most recent research in this field is not yet available, to the best of our knowledge. Key trends, problem areas and opportunities for voice assistants are highlighted in a field survey presented in this paper. Another contribution is the idea for a voice assistant taxonomy for voice assistant categorization. A systematic literature review with a PICOC (population requirements, action, contrast, outcomes, and meaning) focus was conducted to accomplish these objectives. The likelihood of discovering highly pertinent papers from more than 1250 scientific articles published in the recent six years was increased by searching a collection of databases. The investigation identified lingering concerns and obstacles and selected the 131 most significant works. In this paper, we discuss the current state, usage, security and privacy issues, fashion trends, and voice assistant architectures.
Keyword: Voice Assistant, Artificial Intelligent, Alexa, Google Assistant, Siri

I. INTRODUCTION

Nowadays, voice interaction with electronics is a routine chore for many people. Voice assistants like Amazon Alexa, Microsoft Cortana, Google Assistant, or Apple Siri enable users to organize meetings or make hands-free calls without having to think about many topics. Various surveys have been published since the advent of the voice assistant in the 1990s. The voice assistant type, device, and user interface are reviewed by Azvine, Djian, Tsui, and Wogcke (2000) There are suggestions for a specific methodology and information-based solutions in Pokojski (2004) It's not easy to write software for a smart personal assistant, according to the authors. Another paper (Ricky & Gulo, 2015) compares personal support staff in order to comprehend the design, architecture, and implementation of the framework. Cognitive assistants are built on all-purpose platforms, according to Costa, Novais, and Julian (2018) The page lists new projects and summarizes current issues. Talk about how technology can benefit aging folks with limitations or chronic illnesses. No one presented a comprehensive literature evaluation to determine the major areas of voice assistant research by examining all the papers found in this research. According to Bugden and Brereton (2006), systematic reviews are used to identify, assess, and interpret all available research relevant to a certain research subject or field. Due to the fact that it highlights critical applications, technology-based solutions, software architecture issues and open questions, as well as voice assistant opportunities, a work of this kind is crucial in many domains, including artificial intelligence, expert systems, cognitive and conversational agents, and many others. A work of this kind This methodology is used to discuss ideas and important findings related to voice assistants. The systemic reviews literature research has some limitations as a result of the increased methodological rigor, as indicated in other works (Rattan, Bhatia, & Singhm 2013; Roehrs, da Costa, Righi & de Oliveira, 2017)

II. METHODOLOGIES

1. Material And Procedure

A systematic literature review is conducted to provide a comprehensive overview of the voice assistant research area, to summarize voice assistant technology without engaging in a thorough analysis or synthesis, and to identify intriguing research avenues. We've used widely accepted guidelines for the design and execution of structural mapping studies.

Kitchenham & Charters, 2007; Petticrew & Roberts, 2006; Roberts stal, 2017)

Through the following activities, the hierarchical approach to literature review was presented through the following activities: 1.Review planning.

2. Investigating inquiry concerns.
3. The definition of both the data source and the data collection approach.
4. Additional data collection sources must be defined.
5. The search criteria for selection and research are described.
6. Analyzing the study's inclusion and exclusion criteria;
7. Quality assessment of selected studies is defined.
8. The comparison between the study and the selected studies.

III. MODELING AND ANALYSIS

The following sections explain how this study mapping method was performed.

Research questions are the most important component of a systematic analysis. We identify and adjust the existing voice assistant literature depending on new features, issues, challenges, solutions, and research trends. In order to more accurately identify and analyze subjects, the study's generic questions were narrowed down to specific issues for the suggested structural analysis. The broader perspectives of the voice assistant are the research issues and prospective research directions for additional investigation.

The key features of the commercial solution for voice assistant are listed.

A voice assistant solution profile was specified for the business. 3-0 works have been discovered and checked.The naturalness, mood, intonation and rhythm of an assistant's voice were examined by Lopex, Quesada, and Guerrero (2018) He also took eye contact measurements. The gap between the voice assistant application's capabilities, expectations, and features was addressed by Moore (2016), Orehovaafter (2016), Babi (2018), and Etinger (2018) Cowan et al. (2017) and Kiseleva et al. (2016) have investigated how mobile devices can access IPA. Personal assistants in video games are employed in 11.8 percent of studies.Even though games have strong visual and auditory appeal, Ciccin and Quesada (2018) used Alexa in this way to allow persons with visual impairments to play games. The emphasis in games is not on voice input, but on music and sound effects. Furthermore, Kobayashi et al. (2015) advocated the use of Siri's voice commands to enhance networked player interaction. It's an important aspect of healthcare to connect with autistic kids using Google Echo, according to Allen et al. (2018) A system based on Google Glass was proposed by Jalainiyan and Pederson (2015) to help orthopedic surgeons. For user data saved, accessible, and shared by Apple, Google, and Microsoft platforms, (2017) has suggested using Google Glass to construct a bike collaborative training programme.

What is the area where you can use a voice assistant?

Based on their quote, we've discovered a market for voice assistant apps. Under the category of education, students studying a second language would be focusing on games and sports (Kobayashi, Tanio, & Sassano, 2015), a framework for audio games (Ciccio & Quesada, 2018), outdoor gaming (Vpra el A1, 2014) Sport-related papers will be helpful in this regard (Todoorov et al., 2016; Zhu et al., 2014) The most cited studies focus on storing and processing consumer vital signs (Angelini et al., 2013; Santos et al., 2016) and suggesting treatments (Allen et al., 2018; Silv et al., 2017) The majority of research in the privacy and usability fields focuses on improving user experiences, understanding how voice assistants are used, and providing clarification on their use. The goal of infrastructure work is to assist discussion and choice (Heredero, Penmetsa, Agrawal, & Shastri, 2013; Hauswald el a1., 2016; 2015) Numerous general studies have emphasized the comprehension capabilities of voice assistants (Bellegarda, 1998)

More recent publications have proposed assistants (Misra & Such, 2017; Vinothinietal, 2017)

What is the current personal assistants' use of language?

A wide range of articles exploring contextual social problems are used to build speech conversation interfaces (Cowan et al., 2017; Dubiel et al., 2018; Moorthy & Vu, 2014; Shneiderman, 2000) In private settings, it is more likely that people will be able to convey non-private information via voice assistants. They consider it to be socially unacceptable to contact voice agents in public places to get non-private information via a mobile keypad. A more recent study (Bubilel el A1., 2018) has supported this information. Voice assistants are not necessarily associated with less privacy concerns, according to the author. Cowan el a1 says users find it annoying when the assistant asks them to tap the screen to confirm or select alternatives.The majority of users currently use their voice assistants for routine tasks like searching, checking the weather, and playing music. Other studies (Cowan et al., 2017; Dubiel et al., 2018) have demonstrated that users frequently mention a potential correlation between user satisfaction and the frequency of voice assistant use. Speech recognition is actually one of the main concerns for users of uncommon voice assistants, despite the fact that their impression and expectations of their assistants are identical for both ordinary and unique users (Dubiel et al., 2018)

VI. CONCLUSION

In order to pinpoint many crucial topics for research on intelligent personal assistants, an organized review of the existing literature has been suggested for the current study in order to pinpoint many crucial topics. To achieve this, we have conducted a methodical examination of the relevant papers during the last six years. Then, we advocate a classification for a personal worker that incorporates diverse voice assistant and entryway types. The review outcome allowed for the specification of broad responses and inquiries regarding current affairs.

V. REFERENCES

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[2] Shodh Sarita Vol. 7 Issue 27 July to September 2020 end, in the past six years we have carried out asystematic analysis of the articles concerned. We then advocate a.

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[4] The taxonomy and review result enabled general answers and questions on current events to bespecified.

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