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The Invention

The Voice Interface (VI) software bridges the gap between computing appliance voice interfaces and other common platforms.

A task initiated with Voice Interface technology can be shifted across platforms to devices more appropriate to complete the task more quickly and more securely.

Unmet Need

There is a demonstrated need for software capable of seamlessly transferring a task from a voice-enabled computing device to other platforms such as mobile phones, tablets, computers or kiosks.

While current voice interfaces can reduce the barriers to engage with technology to simple dialogue, they lack the sophistication to conduct complex or secure tasks. The Voice Interface software bridges the gap between voice interfaces and other common platforms.

Voice-enabled devices such as the Amazon Echo and Google Home have achieved market success on a large scale. The smart speaker industry is rapidly growing and there are opportunities for inventions in supporting markets to flourish. While voice-enabled computing devices have become popular, the technology is still very limited when it comes to completing complex tasks and tasks that require security or sensitive information.

Opportunity

The Voice Interface allows a voice-enabled user experience such as registering for an appointment to be shifted from a long, complicated voice interaction to a secure text-based user experience with minimal input or barriers. The Voice Interface user would be able to initiate a task with voice interface technology and then transfer the task to a mobile device, as soon as a barrier was reached, by vocally inputting their 10-digit mobile phone number. The user would then receive a text with a link to complete the task.

There were approximately 47 million smart speaker owners in January 2018. In January 2019 that number rose to 66 million -- almost a 40% increase in a single year. The market is thriving and continuing to grow. Further, a technology that enhances the functionality and interconnectivity of existing devices may lead to increased demand accelerating growth.

Voice Interface technology is developing rapidly but there are significant translation and security limitations that prevent optimal user experience. Voice-enabled computational devices excel at lowering the barrier for initiating simple tasks such as playing music, making phone calls, or searching a web browser. However, when a task is more complicated or contains uncommon words, voice recognition can be cumbersome. Additionally, voice-enabled computational devices do not have the control and security to handle tasks that contain sensitive personal information. There is a lack of interconnectedness between voice-enabled computational devices and other computational devices that are more suitable for many tasks.

For instance, Alexa typically has trouble accurately translating proper nouns such as a person's name (first, last, middle) and street or city names. If a user's first name is Jonathan, the spoken version of that name could be one of many variants - Jonathon, Johnathan, Johnathon, etc. Without the user spelling each letter of the name and getting confirmation, it is very difficult to confirm the correct input of that data. This is compounded 5 or more times over when asking for a complete address.

Further, the VI allows the user to avoid speaking sensitive information, i.e., credit card or account numbers, personal health information, and others, in public.

The Voice Interface creates a simple method to allow platform shifting between voice interface technology and mobile devices. The market potential is substantial in that this workflow could be used across all industries to complete a registration, acquire additional user information, complete a transaction, or send the user additional information - all in a secure manner.

Unique Attributes

This invention removes barriers to sharing private information for the user and only requires the user speak a ten-digit number.

The system sends the user a text with a link to exactly what is needed to share and the task can be completed in a secure way, sharing only the data needed to do so.

Clinical Applications

There are numerous commercial applications for this invention. The user could complete complex interactions casually started via a voice interface in a secure and intuitive format. A user could select an appointment time via voice, provide a mobile number, be texted a secure form, and complete a registration. A user could select from a menu of items and create an order via voice interface, then provide a mobile number and be texted a secure form to complete the order and pay. A user could inquire about how to get to a specific location via a voice interface, provide a mobile phone number and get texted directions, a map, or an image.

Stage of Development

Software demonstrated in laboratory, currently scheduled for integration into production application.

Intellectual Property

Provisional patent filed.

Collaboration Opportunity

Actively seeking licensee for commercialization or collaboration.

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