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Virtual assistant user interface with customizable personality

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Virtual assistant user interface with customizable personality

ABSTRACT

Current wearable device virtual assistant user response interfaces are primarily text-based and designed for adults. This disclosure describes a virtual assistant for wearable devices that provides audio and/or graphical responses, with little to no text. When the virtual assistant is used by a child, a face of a character is used as the main user interface. The personality of the character, e.g., the tone of the audio response, the character visuals, etc. can be customized by a parent. With user and parent permission, the virtual assistant character can detect and react to the surrounding environment or other cues.

KEYWORDS

- Wearable device
- Virtual assistant
- Watch UI
- Assistant personality
- Assistant character
- Text-less user interface

BACKGROUND

Current wearable device virtual assistant user response interfaces are primarily text-based and designed for adults. The virtual assistant is faceless and provides a user experience that does not take into account user-specific factors, e.g., whether the user is a child. For example, the personality of the virtual assistant is the same for all users. While features such alarms, reminders, etc. can be customized, the user interface offered by virtual assistants do not include fun elements or account for factors such as limited reading abilities of users such as children.

Simplified virtual assistants have been incorporated into toys. However, these lack portability and functions for customization by a parent specifically for their child.

DESCRIPTION

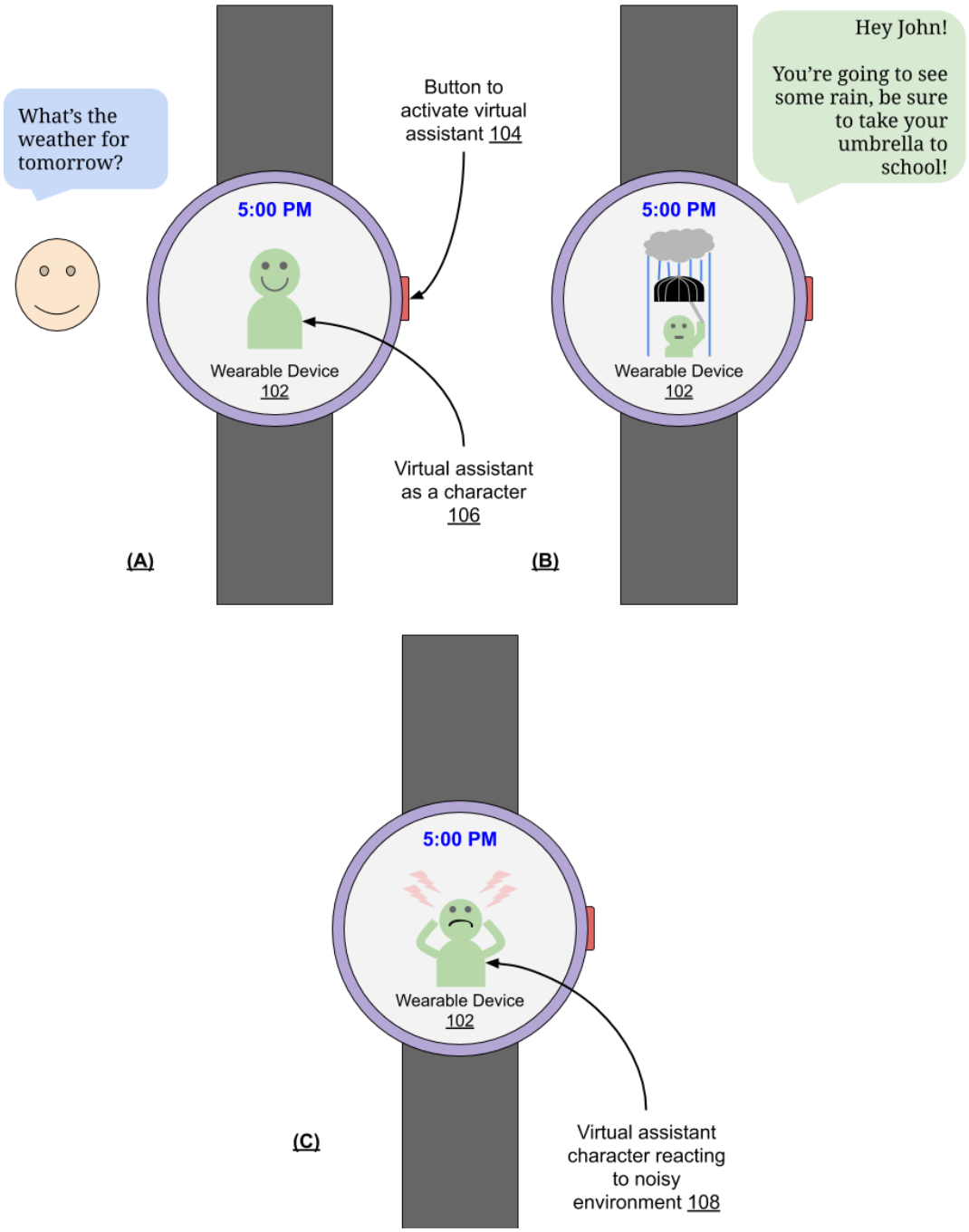

Fig. 1: Text-less assistant for kids on a watch interface

Fig. 1 illustrates an example of a wearable device (102) with a customizable virtual assistant that uses a character with facial expressions as the main user interface (106) and offers audio and/or graphical responses. The personality, tone of the spoken response, and the expressions of the virtual assistant character can be customized specifically for different users, e.g., children. With user permission, the virtual assistant can be activated via specific user input such as voice, touch, movement, activation of a hardware button or in-screen button, etc.

In the example illustrated in Fig. 1(A), the user asks a question ("What's the weather for tomorrow?") to the virtual assistant by activating a button (104). At the time of receiving the question, the character that represents the virtual assistant may have a default expression, e.g., a listening expression. Fig. 1(B) illustrates an updated user interface with the response from the virtual assistant. As can be seen, the virtual character is updated to show the character holding an umbrella, with a rain cloud above it. The virtual assistant also indicates that it is likely to rain, using a customized phrase for the user ("Hey John! You're going to see some rain, be sure to take your umbrella to school!").

If configured and permitted by the user (and a parent, if the user is a child), the virtual assistant can also respond to environmental cues. For example, as illustrated in Fig. 1(C), the character covers its ears when the environment is noisy. In another example, when the child raises the wearable device, the displayed virtual assistant character smiles.

The wearable device provides customization features that are programmable by a parent. For example, a parent can set a reminder for the child to go home at 5:00 PM. For example, the reminder can be an audio reminder spoken by the virtual assistant. Further, the parent can program the virtual assistant to display a map that includes directions to home.

Parents can also program the device to accept verbal commands or display visuals so that the child can easily call the parent in case of need. For example, in response to the spoken command “help,” a phone call to the parent can be automatically initiated.

The character and its programming are configurable by a parent and are provided per configuration settings selected by the parent. Further, the wearable device enables a parent or other user to control access to environmental parameters (as obtained from sensors) or turn off such sensors. While the foregoing description refers to a wearable device, e.g., a watch, the virtual assistant with personality can be provided on any suitable device, e.g., toys, toy robots, smart speakers, home appliances, etc.

Further to the descriptions above, the user, e.g., a child using the device and/or parent or other authority, is provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., a user’s preferences; sensor data such as a user’s current location, ambient sound levels, etc.), and if the user is sent content or communications from a server. In addition, certain data is treated before it is stored or used, so that personally identifiable information is removed. For example, a user’s identity is treated so that no personally identifiable information can be determined for the user; a user’s geographic location is generalized where location information is obtained so that a particular location of a user cannot be determined. Thus, the user has control over whether and what information is collected about the user, how that information is used, and what information is provided to the user.

CONCLUSION

Current wearable device virtual assistant user response interfaces are primarily text-based and designed for adults. This disclosure describes a virtual assistant for wearable devices that

provides audio and/or graphical responses, with little to no text. When the virtual assistant is used by a child, a face of a character is used as the main user interface. The personality of the character, e.g., the tone of the audio response, the character visuals, etc. can be customized by a parent. With user and parent permission, the virtual assistant character can detect and react to the surrounding environment or other cues.

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