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## Voice interaction to send a screenshot and audio recording to another user to ask for help

Alena Fong

Nik Hanselmann

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## **Voice interaction to send a screenshot and audio recording to another user to ask for help**

### **ABSTRACT**

Users often ask others for help with using a computing device, e.g., to navigate the user interface. When a person who provides help is not physically co-located with the user seeking help with using the device, the user must describe the problem by providing the details of the content of the device screen or taking a screenshot and sending it to the person who is helping. Alternatively, the user can search online for relevant solutions by issuing queries or asking questions via online platforms such as search engines, forums, etc. This disclosure describes techniques for a user to solicit help from a remotely located individual via voice command. With permission of the user, a merged recording of the user's screen and voice is sent to the person from whom the user is seeking assistance.

### **KEYWORDS**

- Remote assistance
- Screencast
- Screenshot
- Screengrab
- Screen recording
- Voice recording
- Voice command
- Voice assistant

### **BACKGROUND**

Users, especially novice users, often rely on help from others when using or troubleshooting their devices. Often times, the needed assistance is related to content displayed

on the user's screen at that time. When the person who provides help is not physically co-located with the user seeking help, as is the case in many situations, the user must describe the problem by providing the details of the content of the screen or taking a screenshot and sending it to the person who is helping. Alternatively, the user can search online for relevant solutions by issuing queries or asking questions via online platforms such as search engines, forums, etc.

Novice users, who are not technically proficient, are often uncomfortable and/or unable to make effective use of any of these approaches that rely on technical skills such as taking screenshots, formulating queries, inputting text, etc. Text input or reading technical guides that describe a solution to the problem is also difficult for certain users, e.g., users with low literacy.

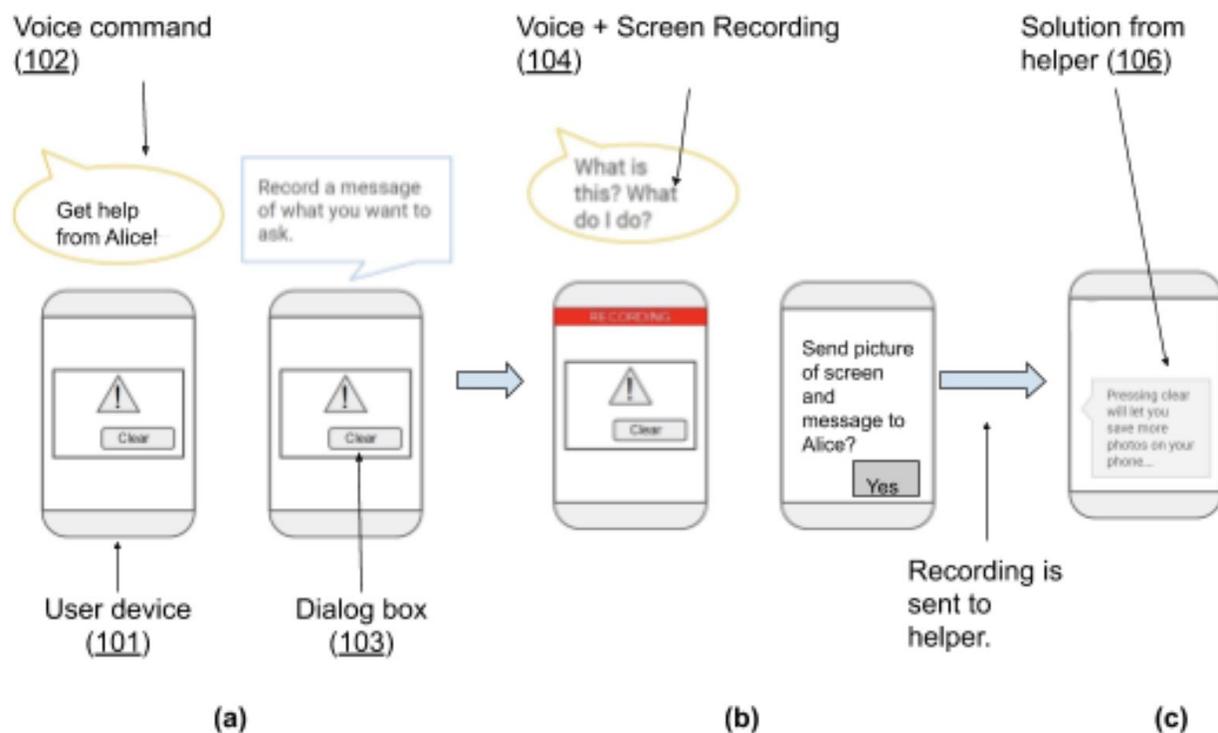
## DESCRIPTION

This disclosure describes techniques for a user to solicit help from a remotely located individual who can provide assistance to solve the problem faced by the user. To this end, the described techniques make use of relevant voice-based features of the user device. The techniques are suitable for novice users, who are often familiar and comfortable with using voice-based features, such as making calls, recording and sending voice messages, issuing voice queries, etc.

Whenever a user encounters an issue that requires the assistance of a remote party, the user can issue a voice command to seek such help. For instance, the user can say "Please get help from Alice" to activate the help-seeking mechanism. Upon such voice-based activation, the user device records the user's voice along with the contents of the user's screen. The user can use the voice recording to describe the difficulties encountered and refer to the corresponding contents of the screen. Depending on the situation, the screen recording can be a video of a portion of the user's screen that includes any relevant user interactions or can simply be a static screenshot

relevant to the issue faced by the user. The user's voice and the corresponding contents of the user's screen are merged to form a single media file.

With permission of the user, the merged recording of the user's screen and voice is then sent to the person from whom the user is seeking assistance, e.g., via chat or other available mechanism. Playing the media file that includes the user's screen contents along with the user's voice describing the issues faced and the assistance needed can be effective in assisting the helper in understanding, diagnosing, and solving the user's problem. The helper can then guide the user by connecting via the most appropriate channel, such as a video and/or audio call, text message, etc.



**Fig. 1: Using voice input and screen recording to seek remote assistance**

Fig. 1 shows an example operational implementation of the techniques described in this disclosure. As shown in Fig. 1(a), a user encounters a problem, e.g., when taking a photo, when

the user device (101) bringing up an error message in a dialog box (103). The user does not know how to respond to the dialog box and solve the problem and decides to seek help from a helper individual, by issuing the corresponding voice command (102) “Get help from Alice.”

Upon receiving the voice command, the device prompts the user to create a voice and screen recording (104) of the issue as shown in Fig. 1(b). Upon confirmation from the user, the combined recording of the voice and screen is to the helper, e.g., via chat. Upon viewing the screen recording coupled with the user’s voice describing the problem, the helper communicates with the user to provide the solution (106).

The inclusion of the screen recording serves to provide a rich visual context for the help seeker to describe the problem and the helper to understand the issue. The described techniques can be used to solicit help at any time from any screen from any remote party, thus providing the flexibility to accommodate a diverse variety of situations. The ability to use voice for initiating, recording, and transmitting the help request avoids the need for using the keyboard or switching apps. As a result, the techniques can improve the effectiveness and efficiency of the user experience (UX) of seeking help from remote parties, especially for novice or low literacy users.

The helper can be any individual from whom the user can receive assistance. Such individuals can include family members, friends, colleagues, technical support personnel, customer service representatives, etc. The user’s voice commands to initiate assistance seeking can be processed by any appropriate hardware or software such as the user device, voice assistant, smart speaker, etc.

Further to the descriptions above, a user may be 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., information about a user’s social network, social

actions or activities, profession, a user's preferences, or a user's current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

## CONCLUSION

This disclosure describes techniques for a user to solicit help from a remotely located individual via relevant voice commands. With permission of the user, a merged recording of the user's screen and voice are sent to the person from whom the user is seeking assistance. The helper can then assist the user by connecting via the most appropriate channel. The inclusion of the screen recording serves to provide a rich visual context for the help seeker to describe the problem and the helper to understand the issue. The ability to use voice for initiating, recording, and transmitting the help request avoids the need for using the keyboard or switching apps. As a result, the techniques can improve the effectiveness and efficiency of the user experience (UX) of seeking help from remote parties.