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Safety Companion Using Smart Glasses

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Safety Companion Using Smart Glasses

ABSTRACT

This disclosure describes techniques that enable a user to quickly share the camera feed of their smart glasses to pre-selected friend(s). The user can thereby improve their safety by live-sharing with one or more trusted friends a view of their surroundings, e.g., while walking, or other activities that may be deemed potentially unsafe. The smart glasses also provide options to call emergency services, e.g., 9-1-1 and include functionality to record video of a situation as it is happening.

KEYWORDS

- Smart glasses
- Augmented reality
- AR glasses
- Personal safety
- Live video feed
- Emergency services
- Situational awareness

BACKGROUND

Certain situations, e.g., walking home alone at night in certain localities, taking a taxi in an unknown city, etc. can induce a lack of assurance about personal safety, and in the extreme, can expose a person to physical danger. Such a situation can include various forms of danger such as mugging, sexual harassment, unwanted followers, etc. Although there are currently apps available that enable a user to share their location with others, it is not possible today to quickly and discreetly live-share a video of one's surroundings, or of an unfolding situation.

DESCRIPTION

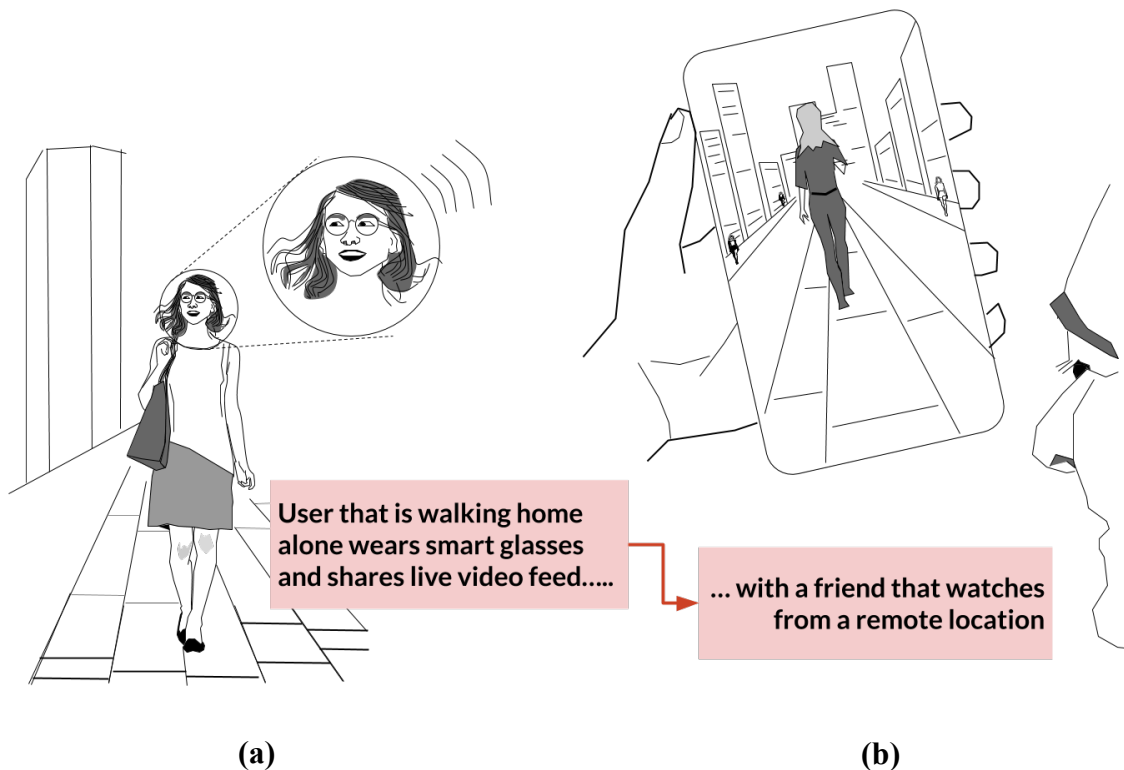


Fig. 1: Transmitting the field of view of the camera of a pair of smart glasses to a remote observer

Fig. 1 illustrates transmitting the field of view of the camera of a pair of smart glasses to a remote observer, per techniques of this disclosure. Fig. 1(a) illustrates a user walking down a street. The user has pre-designated one or more friends as recipients of the camera feed of her smart glasses, if such a feed is turned on by the user.

If the user feels unsafe, they can turn on their camera feed connection to their friends using a quick, discreet motion, e.g., predetermined eye or eyelid movements. Upon doing so, the pre-designated friend receives a video feed that depicts the field of view of the user, as illustrated in Fig. 1(b). In an emergency, the user can access a button or other interface (e.g., a button displayed in augmented reality) to call emergency services and/or record a situation as it happens.

The user can also turn on the camera feed to their friends using voice commands, e.g., by saying “hey virtual assistant, take me to safety companion,” or “hey virtual assistant, ask Andrea to walk me home.” In addition to the video feed, other situational information can be shared with user permission, e.g., the location of the user, inertial measurement unit (IMU) data from the smart glasses, etc.

The video is live shared using a double opt-in procedure. When the user requests a friend to observe their field of view, the field of view is sent to the friend only upon the friend indicating acceptance of the request. During the time the camera feed is being shared, the user is provided a confirmation, e.g., a visual, augmented reality indicator, that the friend is keeping an eye on the user. The user is provided with an option to share their camera feed in a time-bound manner, e.g., for the next 15 minutes, one hour, etc., and/or location-bound manner, e.g., until the user reaches a certain location such as their home. If the timer expires, the user can restart video sharing by reauthorizing the friend.

In this manner, the techniques of this disclosure utilize onboard cameras and network connectivity of a wearable device such as AR glasses to empower users by giving them an easy way to share their walk or other activity with a trusted friend and to send a video stream of their point of view when needed. In another example use case, a child that is traveling alone may wear the AR glasses and the video feed is shared with a parent.

The techniques help improve safety of walking home by connecting the walker with a trusted friend while keeping them alert and present in the moment. The features described herein can also increase the social acceptability of smart glasses by meeting the safety needs of users in a highly personal way. Other circumstances such as taking a taxi in an unknown city, or other types of activities during which the user perceives personal risk can also be shared with remote

observers. By restricting sharing of video feed to specific situations and requiring opt-in from both sender and receiver, the described techniques provide privacy controls.

CONCLUSION

This disclosure describes techniques that enable a user to quickly share the camera feed of their smart glasses to pre-selected friend(s). The user can thereby improve their safety by live-sharing with one or more trusted friends a view of their surroundings, e.g., while walking, or other activities that may be deemed potentially unsafe. The smart glasses also provide options to call emergency services, e.g., 9-1-1 and include functionality to record video of a situation as it is happening.