A home resident and family connected nursing system using virtual live video call application

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Abstract- Many elderly people are hospitalised or cared for in a nursing home. They are more likely to go into delirium if they are separated from their loved ones. Even if video call is likely to lessen their tension, people may feel oppressed by a frequent video call and be reluctant to take the bother to call each time. Despite the lack of a strong familial bond in the living room, one individual may start a discussion with another at any moment and the conversation will naturally terminate without a clear indication. Using video calls, we provide a virtual living room system for connecting individuals who live far apart. A believe word is used to re-establish a connection to the other person after the video is disconnected.

Index Terms—Virtual living room, Video call, BLE beacon

I. INTRODUCTION

A nursing home or hospital is a common resting place for the elderly. When they split from their family, there is a chance of them suffering from delirium due to stress [1] [2]. Even if video call is likely to lessen their tension, people may feel oppressed by a frequent video call and be reluctant to take the bother to call each time as a consequence. A person may start a discussion with another person in the living room at any moment and the interaction will naturally come to an end without any evident termination indication. In this research, we propose virtual living room system to link remote people each other reasonably utilising video call service. It offers only information that the other person is present when video call is disconnected, and reconnects video call by a single spoken phrase.

II. VIRTUAL LIVING ROOM SYSTEM

If there is a family member present in the living room, you can know at a look. When using a virtual living room system, it is necessary to be able to determine whether or not the other is there. Watchers examine whether or not they are wearing beacons in order to ascertain whether they are or are not. The video call is initiated by the identification of a belief sword and is terminated when both parties remain silent to one other. Instead than developing a new video call system from scratch, Skype is utilised as a subsystem instead. It is necessary to transfer information from one system to another using the text chat feature of Skype.

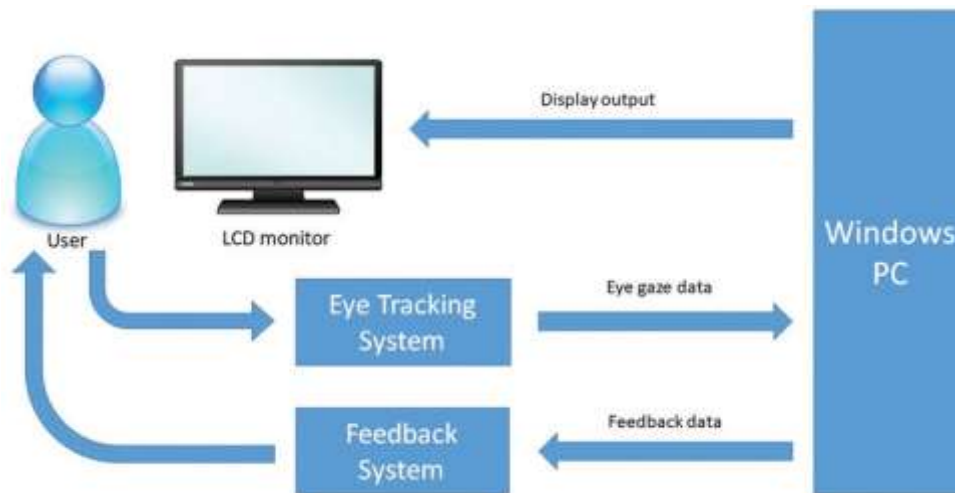Furthermore, the device displays information about one of the parties on one side of the screen (Fig. 1).

Figure. 1. Screenshot of the experiment and system

Figure. 2. Video call during an experiment

III. EXPERIMENT

Subjects had a video call while remaining home for long time initially, that indicated simple Skype was utilised and it was been connected all along. After that they employed our new approach, and compared these two lifestyles (Fig. 2). They all mentioned that they felt uncomfortable the first one, and that the system reduced the unpleasant sensation. It was established that the system reproduced the ambience of natural living room to a certain degree.

IV. CONCLUSION

With the use of video calls, we've developed a virtual living room system to moderately link individuals who live far apart. An experimental system was constructed and it could reproduce relationship at natural living room. In the future, we want to use Beacon data to predict a person's activity and not only reveal if the other is there, but also what and where they do it in real time.

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