SMART HANDSHAKE

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***Abstract*—The SmartBand is a wearable bracelet-like device that exchanges information about its users and their relationships. This exchange happens during the common gesture of the handshake, which is detected by the device. As such, In this paper, we discuss the SmartBand technology and feedback. The results suggest that control over personal information is an ongoing issue, but they also highlight the possibility for wearable devices to enable the creation of a set of invented techno-gestures with different affordances and constraints that might be more appropriate for certain social interaction applications.**

I. INTRODUCTION

In the past few years, there has been an explosion of online social networking. Web sites like Facebook and Orkut allow people to build relationships in an active social cyberspace. This development has been paralleled by the increasing attention received by wearable technologies in ubiquitous computing research. Our research is concerned with the convergence of these two domains. We are interested in exploring the social nuances and affordances provided by wearable social networking. We present SmartBand, a technology-enhanced bracelet that can store, display(in android app), and exchange information about its users and their relationships. SmartBand aims to explore the potential of wearable devices to augment real and virtual world social interaction.

II. WHAT IS SMARTBAND

SmartBand is a bracelet that exchanges information when one user shake hands with another. Handshaking is detected via infrared (IR) transceiver alignment combined with a sensed up-and-down motion synchronized on the two devices in IR contact. IR transmission is only activated when the user's hand/wrist are in a pre-calibrated handshaking orientation. Maintaining the Integrity of the Specification.

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III. WHAT IS ANDROID APP AND SERVER

It is basically a communicator between the SmartBand and the server(which is present online). It receives the unique "id" form the SmartBand via bluetooth and sends it to the server and gets back the data corresponding to that id in the server. We have used WAMP server which supports APACHE , PHPMyAdmin and PHP scripts.

IV. COMPONENTS USED :

Smart Band :

1. Trinket pro
2. Bluetooth Module
3. Accelerometer
4. IR Sensor and Receiver
5. NIPPO Battery

V. WORKING :

- Each Band has it's own unique ID that matches the ID in the server corresponding to which all users have saved data on it.
- Trinket-PRO is the computer of our device which controls all the other devices
- When we shake hands the ID's are exchanged via IR transmission.
- Then that ID is sent to the android app via Bluetooth.
- The Android app makes GET request to the server. This app server communication is handled by the PHP scripts which are uploaded on the WAMP server.
- Having made this communication the server sends back the data corresponding to the ID to the android app.
- Finally the android app saves the data of all the persons we have met and we can view that data anytime.

VI. SCOPE TO IMPROVE

1. The size of the band is quite large and it can be modified to be of small size and easy to wear
2. New and accurate ways to detect handshake.
3. Can also exchange profile pics of persons.
4. Improve the user interface of android app

References

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