North Carolina State University
INFORMED CONSENT FORM for RESEARCH

This consent information is valid 5/31/2012 through 5/31/2013

Title of Study: Connecting Youth through Affective, Mobile Games.

Principal Investigator: Moin Ayazifar, Pradeep Kumar Murukannaiah Faculty Sponsor: Munindar P. Singh

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What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

This study aims to promote physical behavior among young adults by utilizing social network with interactive capabilities. We are trying to combine mobile sensors, social network and the emotion modeling to create a cohesive environment geared towards increasing physical activity among participants.

What will happen if you take part in the study?

If you agree to participate in this study as a participant, you will be given three types of questionnaires. We have designed short questionnaires which take between 5-10 minutes to complete. In the pre-study questionnaire participants are asked how often they exercise or engage in any kid of physical activity. Participants are also asked to submit weekly surveys recording their daily physical activity during the course of a week. In the post-study survey participants are asked to describe their experience with the application and whether using the application has helped them to promote their physical health. By signing this form you will confirm that you don't have any health issues which would preclude you from physical exercise and participation in this study consequently.

Participants will be given a smart-phone to use as their primary phone for the duration of the study which is expected to last four to six weeks. You will have the option to use your own smart-phone given that it's compatible with the booST application. If you choose to receive a smart-phone, you will need to delete all the data on the cell-phone and reset the device to" factory default settings" before returning it at the end of the study. This ensures the safety of your personal information.

In order to use the mobile application you will need to login to a *Google+* or *Facebook* account, then you will be registered with our system using a random token ID. You will directly login to *Google+* or *Facebook*, therefore your credentials will not be stored in our system whatsoever. After logging in, the social network provides us with a token ID and grants us access to the list of your friends, which will be displayed on the first page of the application. We don't store the list of participants' friends or any other information from social network in our databases. You are not required to provide any real world identity or any personal information. The mobile application does not collect data from any sensors on the phone except for GPS and Accelerometer. We use GPS sensor to calculate the traversed distance during each physical activity. The accelerometer sensor is also used to measure the amount of physical activity performed by the user. During the course of using the boost application you will occasionally be asked to express your emotional status. Some examples of these emotions are pride, shame, joy, distress, satisfaction or disappointment. booST then associates the your emotion with the environment status to predict your energy level and emotion status in the future which. Your predicted emotional status and estimated energy level will be made available to the members of your social circle.

After the study is finished, we use the collected data to calculate the amount and frequency of physical activity performed by each participant during the course of the study. Then we compare this data with the data gathered in the pre and post-study surveys to determine the effect of our application on the physical health of participants.

Risks

Privacy Risks

A link between your survey responses and your identity will be known, but the surveys are not collecting any personally identifiable information other than your email. Your email will be replaced by pseudonyms prior to analysis and archiving. We need your email initially so we can relate the survey to the data collected from your device.

Technically, the smart-phones we provide to active participants are capable of being programmed to log a variety of data. An incomplete list of the data types that can be logged includes, location (using GPS or cell-tower triangulation), browsing history, internet-messaging and email history, text history, call logs, Bluetooth scan logs, Wi-Fi scan logs, and even conversations (phone, email, texts, or internet-messaging). Despite the potential to collect a variety of data, for the purpose of this study, we only collect the data from GPS scans on the smart-phones provided to active participants.

Health Risks

Physical activity can be harmful for participants with particular health issues. We are not responsible for any injury, loss, claim, damage, or any direct, incidental or consequential damages of any kind which arises out of or is in any way connected with your use of booST application. You are not eligible to participate in this study if your answer to any of the following questions is "**Yes**".

1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
2. Do you feel pain in your chest when you do physical activity?
3. In the past month, have you had chest pain when you were not doing physical activity?
4. Do you lose your balance because of dizziness or do you ever lose consciousness?
5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
6. Have you experienced irregular, rapid, or fluttery heart beat in the past month?
7. Have you experienced severe shortness of breath in the past month?
8. Have you experienced significant, ongoing weight loss that hasn't been diagnosed?
9. Do you have infections, such as pneumonia, accompanied by fever?
10. Do you have foot or ankle sores that won't heal?
11. Do you have persistent pain or a disturbance in walking after you have fallen? (You might have a fracture and not know it, and exercise could cause further injury)
12. Do you have certain eye conditions, such as bleeding in the retina or detached retina?
13. Have you had cataract or lens implant, or laser treatment or other eye surgery in the past 3 months?
14. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
15. Do you know of any other reason why you should not do physical activity?

Financial Risks

If you chose to receive a smart-phone for this study, you will be responsible for any damage or/and loss occurred to the smart phone during the course of this study. The price evaluation of each smart-phone is $200.

Benefits

The success of our techniques and application will provide a new perspective for social health systems and applications. The new perspective, on a long run, is geared towards enhancing public health and wellbeing. Moreover, your cooperation in this study will help Moin Ayazifar and Pradeep Murukannaiah with their doctoral research.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. Data will be encrypted and stored securely in a database on one of our secure and password protected servers. Access to the database will be restricted to the principal investigator and supporting investigators who are Moin Ayazifar, Pradeep Murukannaiah and Munindar Singh. No reference will be made in oral or written reports which could link you to the study. You will NOT be asked to provide your name at any stage of this study. All your personal and identifing data will be deleted from the smart-phones and our database upon completion of the study.

Compensation

You will be compensated for the data plan costs ($25) during the course of this study.

What if you are a NCSU student?

Participation in this study is not a course requirement and your participation or lack thereof, will not affect your class standing or grades at NC State.

What if you are a NCSU employee?

Participation in this study is not a requirement of your employment at NCSU, and your participation or lack thereof, will not affect your job.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, Moin Ayazifar or Pradeep Kumar Murukannaiah, at Room 2259 Engineering Building-2, 890 Oval Drive, Raleigh NC 27695, Phone: [919-513-4456].

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled."

"You must be at least 18 years of age to participate in this study."

Subject's signature_____ **Date** _____

Investigator's signature_____ **Date** _____