Protocol H08043 As Of: October 30, 2008 02:15 PM

Title: User evaluation of an energy management interface

Principal Investigator: Melody Moore Jackson

Admin Assigned: Melanie Clark

Committee Assigned: Committee 1

Review Type: Expedited Review

Current Status: Closed

Last Activity: 08/11/2008 - Closed by IRB

Original Approval Start: 03/03/2008

Current Approval Period: 03/03/2008 - 07/01/2008

Protocol Details | Related Submissions

PRINT: print this page

Hide this section

Protocol Description:

We are conducting a usability study of an iinterface to help people reduce energy consumption in their homes. For this protocol, we will ask users about their preferences regarding our interface design and also present them with prototypes of the interface. We will ask the participants about their attitudes towards energy consumption, their current energy management practices, and what types of information would help them better manage energy consumption. We will also ask them to interact with an interface and indicate their experience with it.

Hide this section

Department:

Computing

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Research Personnel:

Name	Role	Certification
Melody Moore Jackson	PI	• Human Subjects Training Certification (Approved): July 22, 2001 - Indefinite
Jiasheng He	Student	• Human Subjects Training Certification (Approved): January 22, 2006 - Indefinite
Raymond Mason Stanley	Student	• Human Subjects Training Certification (Approved): August 21, 2003 - Indefinite
Taejung Yun	Student	• Human Subjects Training Certification (Approved): December 13, 2007 - Indefinite

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Funding:

Type: Not Funded

Hide this section

Research Locations:

Short Name	Full Name
TSRB	Tech Square Research Building - TSRB

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Lay Summary

A * required * Human Subjects Training is a requirement for approval. Have you completed Human Subjects Training? PLEASE NOTE: YOU CAN SUBMIT THE IRB APPLICATION PRIOR TO COMPLETION OF THE TRAINING, HOWEVER, APPROVAL WILL NOT BE ISSUED UNTIL TRAINING HAS BEEN COMPLETED AND THE OFFICE OF RESEARCH COMPLIANCE HAS YOUR TRAINING ON FILE. If you have not completed training you will find instructions on how to do so here PLEASE SAVE YOUR APPLICATION BEFORE CLICKING ON THE LINK AS YOU WILL BE TAKEN OUT OF IRBWISE AND ANY INFORMATION YOU HAVE ENTERED WILL BE LOST IF YOU DO NOT SAVE IT BEFORE LEAVING.

yes

B Describe in lay terms the purpose of the research including the research question or hypothesis. State what you hope to learn or prove.
Climate change and energy use is a priority for many people, but it can be difficult for people to know how to reduce their energy use. Given the large amount of time that people spend at home, saving energy in the home can be important. In a typical home today, a simple thermostat is the only interface that allows users to manage energy consumption. We want to find out what type of interface beyond the typical thermostat can facilitate the reduction of energy consumption in the home. We plan to design and prototype an interface that automates energy awareness in the home. We also plan to conduct a usability study to recieve feedback about the effectiveness of our interface so that we may improve it.

C State the Inclusion/Exclusion Criteria. For example, a survey about attitudes regarding education outside of the United States might have these inclusion criteria: Only those persons who are 18 years of age and older and who have attended one full academic year of secondary education outside of the United States are eligible to participate. For a study comparing two sports drinks to be used by athletes, persons who seldom exercise, have heart disease or hypertension, or are above a certain age might be excluded from participation.
Able-bodied participants who are 18 years of age and older.

Hide this section Review Type Requested:

Expedited Review

Hide this section Review Categories Suggested:

Category	Description
Expedited - Category 6	Collection of data from voice, video, digital, or image recordings made for research purposes.
Expedited - Category 7	Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

Hide this section Human Subject Interaction:

Will the research involve direct interaction with subjects?
Yes

Number of Subjects for this Protocol
20

Gender of Subjects for this Protocol
Both genders

Hide this section Vulnerable Populations:

Group Names
Non-native English Speakers
Normal Volunteers
Students or Trainees

Hide this section Subjects

A Total number of subjects to be enrolled in the study. Include justification.
Twenty participants. This is the minimum amount to gather enough data to make conclusions about our interface.

B If you are excluding minors, please state the scientific justification below. For example, "This study of Alzheimer's patients excludes minors, as that population is not known to have the disease." Or, "This

study will examine driving records of over-the-road truckers who drive at least 250,000 miles annually. That population does not include minors."
No minors. See justification below

Minors are not the target audience of the interface that we are evaluating.

C Federal regulations require that non-pregnant women be included in research unless their exclusion can be scientifically justified. Are you including women who are not pregnant?
Yes

D If you marked OTHER above, please provide the justification for excluding non-pregnant women:
(No Answer Given)

E * required * Provide detail of steps to be taken to ensure additional protection of the rights and welfare of the identified vulnerable population.
Non-native english speakers - There will be no penalty for right or wrong answers or for English speaking ability. Non-native speakers can opt out of questions or tasks that they are struggling with because of language difficulties. Questions or task instructions can be rephrased so that non-native speakers better understand them. Students/Employees or Subordinates of Investigators - All participants, students and employees/subordinates of investigators included, will be given a consent form to take home, so that they can take time to think about the study, and not feel intimidated or pressured by the study staff into participating. Pregnant subjects - If pregnant subjects (or any other study participants) do not feel comfortable interacting the interface for any reason, they may choose to discontinue their participation in the study at any point without penalty. pressured by the study staff into participating. Pregnant subjects - If pregnant subjects (or any other study participants) do not feel comfortable with wearing the input device for any reason, they may choose to discontinue their participation in the study at any point without penalty. Economically disadvantaged - We will not know or ask whether our participants are economically disadvantaged. As with any other participant in the study, these participants will not be penalized in any way for their disadvantage, and if they are uncomfortable with any aspect of the study, may choose to discontinue their participation at any point.

F State the duration of subject participation. How many hours? Days? Over what period of weeks or months?
2 hours

G Expected number of subjects to be enrolled per year:
20

H Expected number of years study will be active.
1

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Recruitment

A Describe in detail the recruitment plan. Who will be recruited and how? By recruitment ads, word of mouth, email? If by word of mouth, PROVIDE A BRIEF SCRIPT. The IRB does not expect the script to be followed verbatim; however, the recruitment language must be reviewed. If using flyers, email, advertisements, screen shots from websites, or other documents, submit copies with this protocol.
We plan to recruit only students, staff, and faculty from the Georgia Tech Atlanta campus. Recruitment will be done by word of mouth and by emailing potential participants known by the study staff. Participants can also recommend potential participants for the study. The text of the recruitment email that will be used is attached to this proposal.

B Is a Georgia Tech Student Subject Pool being used? NOTE: Only the School of Psychology and the College of Management have formal Student Subject Pools. In order to recruit from among either group, advance arrangements must be made with the manager of that pool.
No

C Will subjects be compensated for participation? If yes, provide details of remuneration, i.e.: total amount of money for completion of study and prorated amounts if study is not completed. If compensation will be class credit, state number of hours of credit to be granted for completion of study, and include plans for prorating credit if study is not completed.
No

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Subjects Data

A Will the data contain any information that could personally link the subject to the research?
No

B If Social Security numbers or other identifiers will be collected, state how those will be kept confidential. How will they be stored? Where will the linking key or code be safeguarded? Who will have access?
N/A

C Will data be reviewed by a Data Safety Monitoring Board? (DSMBs generally monitor results of clinical trials for trends or unanticipated adverse events. For example, if adverse events of a similar nature begin to occur, the DSMB will call this to the attention of the investigators. In extreme cases, the study may need to be modified or even halted).
No

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HIPAA Questions

A * required * Does this research involve the collection of health information? (Health information includes physical or mental information regarding the diagnosis, treatment and/or prevention of physical or mental conditions of the type that is now, or could be in the future, covered by health insurance.)
No

B If applicable, please check all of the following that will be collected by this research:
(No Answer Given)

C If the proposed activity is for research in which subject authorization will not be obtained, please check the appropriate answer:
(No Answer Given)

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Other Questions

A Does this research activity involve the collection of biological specimens?
No

B If prospective, please specify below:
N/A

C Will specimens be collected anonymously (no way to link sample with subject identity) or in an identifiable (i.e. coded) manner?
N/A

D Is genetic testing of these specimens proposed?
N/A

E Is export control review required? If yes, please go to http://www.export.gatech.edu/
N/A

F If research involves the use of biological specimens, has Institutional Biological Materials Safeguards Committee approval been obtained? For guidance, please consult the Office of Environmental Health & Safety at 404 / 894-6119.
N/A

G Is use of rDNA proposed? If yes, attach the Institutional Biosafety Committee letter of approval in the Document Upload section of this IRB application. If Institutional Biosafety Committee approval has not yet been secured, submit the IBC application, located at http://www.compliance.gatech.edu/IBC/documents/IBC_REGISTRATION.doc
N/A

H All supporting documentation for this application must be uploaded in IRBWISE. Documents may be uploaded in section VI below called 'Attach Documents'. Please indicate all of the following documents to be uploaded.
Recruitment materials (flyers, ads, etc.)
Consent form (if applicable, upload in section III.C. "Consent Procedures)

Hide this section Keywords:

Keywords
usability

Hide this section Informed Consent Procedures:

Name	Description	Approval Date
Written Consent Required	Signed consent will be sought from the subject or from the subject's legally authorized representative.	March 3, 2008

Hide this section Informed Consent

A Type of consent to be obtained:
Written

We are planning to recruit participants only from the Georgia Tech Atlanta campus, and each person participating in the study will still sign a written consent form.

B Does this research involve a web-based consent/survey? If so, describe the security measures taken to ensure confidentiality.
No

C How and where will participants' permission be recorded? You might, for example, state that participants' signatures will be collected on the consent form during a discussion prior to the first experiment.
Potential participants will be given a consent form to review and sign at their leisure. After they have taken as much time as they need to review and understand the consent form, they can return their signed forms to any member of the research team.

D If subjects are unable to give consent (e.g., children or mentally incompetent), describe how and by whom permission will be granted.
N/A

E Is deception involved in this research? If so, please read the following and then provide your

justification in the space below. By its very nature, deception in research violates the principles of voluntary and informed consent to participate in research. Therefore, deception is an extraordinary measure that is not normally permitted in human subjects research. When proposed, the deception must meet all the following criteria: Risks to subjects are no greater than minimal; the rights and welfare of subjects must not be adversely affected; deception is essential in order for the investigator to carry out the research and, at the earliest possible time, subjects must be informed of the nature of the deception, and given a reasonable opportunity to withdraw from participation and to have their data excluded. Other important issues to be considered when using deception are: A reasonable person would be willing to participate in the research if he or she knew the nature and procedures of the study. Any data collected during the deception may be used only with a subject's explicit approval, obtained after the subject has received full disclosure regarding the study. The proposed research is sound in theory and methodology. Anticipated findings will contribute significantly to the general body of knowledge. Vulnerable subjects (the cognitively impaired, children, or prisoners) are excluded from research involving deception. Provide justification for planned deception below.
No

Hide this section Documents:

Document Title	Document Type	File Submission Date	Document Approval Date	Stamped Consent Forms
popup icon Recruitment Email (download)	Recruitment	January 31, 2008	March 3, 2008	
popup icon Informed Consent (download)	Consent Form (view checklist)	January 31, 2008	March 3, 2008	popup icon Informed Consent (download)

Hide this section Documents Uploaded as Answers to Questions:

note: Use link in question column to view full question and answer text.

Question Group	Question (Limited to 50 Characters)	Answer (Limited to 50 Characters)	Uploaded File	Document Upload Date

None

Hide this section Supplemental Documents:

File Name	Submitted Date	Submitted By

None

Hide this section Conflict of Interest

A Does any participating member, staff, students (or his/her spouse or dependant Students and employees) have any financial interest such as royalty, equity or any other payments (e.g. consulting, salary, etc...) in the sponsor or other entities having a financial interest in intellectual property, product, or service which is the subject of the proposed research?
No

B Does/will any equity interest exceed $10,000 in current value or exceed 1% of ownership interest?
No

C Does/will aggregate annual payments for royalty and other payments exceed $10,000?
No

D If yes, indicate whether your potential conflict of interest has been disclosed to the GTRC Office.
(No Answer Given)

Related Submissions | Protocol Details

Amendments:
No Amendments

Continuing Reviews:
No Continuing Reviews

Study Closures:
No Study Closures

Protocol Deviations/Violations:
No Protocol Deviation/Violations

Safety Reports:
No Safety Reports

SAE's and Adverse Events:
No SAEs

Investigator Brochures:
No Investigator Brochures

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