REPORT ON ETHICS PROPOSAL
REF# CSE00996 (Version 1)
TITLE: Interaction methods
SUBMITTED BY: Helen Purchase, Senior Lecturer
FROM THE: Computing Science
REVIEWERS: Alessandro Vinciarelli, Lars Muckli, Monika Harvey

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The aim of these experiments is to investigate whether task performance using common interface interaction methods is affected by the visual design of the interface. We are interested in whether visual features (e.g colour, font, shape of buttons, background image, positioning of objects) affect users' performance in doing interaction tasks. This is important because if we can determine that visual design does affect performance, then we can devise guidelines for interface designers that will assist them in creating effective and efficient interfaces.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

No funding.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Participants will perform common interface tasks (e.g choosing items from a drop-down list, choosing a number on a slider, pressing a botton, selecting radio buttons) - all these tasks are likely to be very familiar to users.

The visual design of the screen will be the different conditions: different colours, different fonts, different shapes, different background images, different shapes etc. We anticipate that several experiments will be conducted using this model, using a variety of different independent variables.

In all cases, the number of independent variables and number of conditions will not result in a set of tasks that will require that the total length of the experiment exceeds an hour (including preliminaries and post-experiment questionnaires).

The equipment will be a laptop that will be used for all participants, to ensure consistency in presentation of the visual stimuli.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The participants will be performing common interface tasks, so will not be affected by the procedure. The experiment will not take more than an hour.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The following safeguards will be taken:

* the number of tasks defined by the independent variables and conditions will not result in an experiment that will take longer than an hour

* so as to ensure that any images used are not of a sensitive nature, we will use those provided by Windows in their range of possible screen backgrounds, or, if we require images of a form that Windows does not provide, we will ensure that they are neutral.

* participants will be given the opporuntity of opting out of giving demogaphic information

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Participants will be not be children, or any vulnerable adult with disability or handicap. They are most likely to be students, but we hope that we will be able to extent our pool of participants by exploting personal contacts outside of the university - the more people and the wider variety, the better!

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

No

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

We will recruit by word of mouth and by putting posters on noticeboards. We think it unlikely that we will need to use student email lists, but if we do, we will get permission from the Head of School/College as necessary in advance.

All participants will complete a consent form at the start of the experiment.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

No names will be stored, all data will be stored and processed anonymously.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

February 27th 2012

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Mainly in the School of Computing Science, but also in personal locations using a laptop as appropraite - this is to help us to get as wide a variety of participants as possible.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

The take-away information sheet gives the contact details of the experimenter. The participants will be debriefed on the purposes of the experiment at the end, and will have an opportunity to ask questions of the experimenter.

Information Sheet: Interaction methods

The aim of this experiment is to investigate the use of several interaction methods. The experiment will take not more than 45 minutes to complete.

At the start of the experiment, you will be given a demonstration of the different interaction methods to be used. These are all interaction methods often found in common interfaces: sliders, drop-down-boxes, check-boxes, text-input, buttons etc. You will be asked to demonstrate that you understand the experimental tasks associated with these interaction methods.

During the experiment, you will be presented with a series of these tasks on the computer screen.

You will be given as long as you like to complete each task, but **we ask that you try to complete them as quickly as you can.**

After each task, you will be shown a blank screen. You can then indicate when you are ready to start the next task.

The experimental software will collect information on the length of time you take for each task, and your accuracy in completing the tasks.

At the end of the experiment, you will be asked to rank different interface styles, and be asked to comment on the tasks and the interfaces that were used in the experiment.

We will ask for some demographic information at the end of the experiment (e.g. age, gender, experience, expertise etc.) You are not required to give this information if you do not wish to do so.

All results will be held in strict confidence, ensuring the privacy of all participants. No identifying personal participant information will be stored with the data. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

Your participation in this experiment will have no effect on your marks for any course at this or any other university.

Please note that it is the interaction methods, not you, that are being evaluated. You may withdraw from the experiment at anytime without prejudice. If you do so, any data already recorded will be discarded

Please take this sheet away with you, and if you have any further questions regarding this experiment, or would like general feedback about its final outcomes, please contact:

Dr Helen C. Purchase
School of Computing Science
Room S104, Lilybank Gardens
helen.purchase@glasgow.ac.uk

This study adheres to the BPS ethical guidelines, and has been approved by the ethics committee of College of Science and Engineering at The University of Glasgow (ref: CSE00996). Whilst you are free to discuss your participation in this study with the researcher (330 4484), if you would like to speak to someone not involved in the study, you may contact the chair of the ethics committee of College of Science and Engineering at The University of Glasgow(marieh@psy.gla.ac.uk).

Consent form: Interaction methods

The aim of this experiment is to investigate the use of several interaction methods. The experiment will take not more than 45 minutes to complete.

At the start of the experiment, you will be given a demonstration of the different interaction methods to be used. These are all interaction methods often found in common interfaces: sliders, drop-down-boxes, check-boxes, text-input, buttons etc. You will be asked to demonstrate that you understand the experimental tasks associated with these interaction methods.

During the experiment, you will be presented with a series of these tasks on the computer screen.

You will be given as long as you like to complete each task, but **we ask that you try to complete them as quickly as you can.**

After each task, you will be shown a blank screen. You can then indicate when you are ready to start the next task.

The experimental software will collect information on the length of time you take for each task, and your accuracy in completing the tasks.

At the end of the experiment, you will be asked to rank different interface styles, and be asked to comment on the tasks and the interfaces that were used in the experiment.

We will ask for some demographic information at the end of the experiment (e.g. age, gender, experience, expertise etc.) You are not required to give this information if you do not wish to do so.

All results will be held in strict confidence, ensuring the privacy of all participants. No identifying personal participant information will be stored with the data. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

Your participation in this experiment will have no effect on your marks for any course at this or any other university.

Please note that it is the interaction methods, not you, that are being evaluated. You may withdraw from the experiment at anytime without prejudice. If you do so, any data already recorded will be discarded

I have read this information sheet, and agree to voluntarily take part in this experiment:

Name: _____ Email:_____

Signature: _____ Date: _____

This study adheres to the BPS ethical guidelines, and has been approved by the ethics committee of College of Science and Engineering at The University of Glasgow (ref: CSE00996). Whilst you are free to discuss your participation in this study with the researcher (330 4484), if you would like to speak to someone not involved in the study, you may contact the chair of the ethics committee of College of Science and Engineering at The University of Glasgow(marieh@psy.gla.ac.uk).

REPORT ON ETHICS PROPOSAL
REF# CSE00980 (Version 1)
TITLE: Using Dynamic Multimodal Reminders to Aid Task Organisation and Prospective Memory.
SUBMITTED BY: [redacted], PhD Student
FROM THE: School of Computer Science
REVIEWERS: Lars Muckli, Rob Jenkins, Simon D. Rogers

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

This experimental study forms part of the ongoing MultiMemoHome project (EPSRC grant EP/G069387/1, 2009-2013) and is intended to empirically evaluate how reminder prompts can assist with task organisation and prospective memory activities (i.e. remembering to do something at a certain time). The experiment will be based on the Hotel Task, a well-known experimental design for assessing frontal lobe damage in people with brain injuries. We will not be using impaired subjects in these experiments, only healthy volunteers.

During the experiment participants will be asked to carry out 5 home-based tasks over 15 minutes, which they will repeat 3 times (once for each condition, as explain in Section 2). In addition, participants will be asked to remember to carry out certain tasks at set times. We will be measuring adherence to the given schedule, along with some subjective measures including NASA-TLX workload. All tasks have a home-based context. Data will be presented and collected via a regular PC computer for the first experiment but might be moved to other platforms later such as a tablet PC or a mobile phone. We will anonymously collect demographic data along with the experimental data itself, all of which will be stored securely.

The aim of the study is to find out which system of reminder delivery is most effective at supporting task organisation and prospective memory recall; static reminder delivery, where messages follow a pre-programmed set of rules, or dynamic reminder delivery, where the modality and timing of reminders changes based on reminder importance and the participantâ•Žs current activities. The results will show how effective computer-managed reminders can be at helping a person manage their daily activities, contributing to the field of computer-assisted or automated care at home.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

This experimental study forms part of the ongoing MultiMemoHome project (EPSRC grant EP/G069387/1, 2009-2013).

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

There will be two experiments, each a within subjects design, comparing the performance of the reminders. At the end of both experiments the two experiments will be compared using between-groups methods to explore the differences between older and younger participants. Each experiment will use

20-30 participants with an even divide of male and female participants. Both experiments should be balanced, with the same number of participants and the same gender divide. The younger participant group will use participants aged 18-30. The older participants will be aged over 60.

Each experiment has the same format. Participants are asked to carry out a set of primary tasks, dividing 15 minutes of time equally over each task (ideally spending 3 minutes on each task). The participant must also remember to carry out some prospective tasks at certain times over the 15 minute period. A clock is available to the participants to help organise their time. The aim is to evaluate how well the participants organise their time and carry out the prospective tasks when receiving support from different types of reminder.

There are 5 primary tasks, chosen to represent home-based activities carried out in various modalities. The tasks are:
1. Sorting clean socks into matching pairs,
2. Writing down a recipe from a cookery audiobook,
3. Watching television,
4. Using an online grocery shopping service to buy items from a shopping list,
5. Calculating and categorising household expenditure from a set of fictitious receipts.
These tasks are not assessed. Participants are only assessed on their ability to organise their time over the given range of tasks. As in the Hotel Task (and all other variants of the 6 elements task) the tasks are designed to take longer than 3 minutes to complete.
Participants will also have to carry out prospective tasks. At the start of each condition they will be given an instruction card, which they can keep for the condition, telling them to remember to carry out certain activities at certain times. To â•Ÿcarry out the activityâ•Ž they must press one of 3 marked buttons. The text on the card may read as follows;
At the [8:00] minute mark, you must cook food by pressing the button marked â•œstart cooking foodâ•š. You can continue with your other tasks while you wait for it to finish cooking. The food takes [2:30] minutes to cook, at which point you should stop cooking and eat it by pressing the button marked â•œstop cooking, eat foodâ•š. You also have medicine to take which must be taken [5:30] minutes [before] eating; to take your medicine, press the button marked â•œtake medicineâ•š.
The values in square brackets above will be different for each card. Participants will not receive the same card twice.
Reminder notifications will be either Synthetic Speech, Text, Auditory Icons, Visual Icons, Tactile Messages or combinations of the 5. The reminder messages will inform the participant when they have spent too much time on a task, not spent enough time on another task, when it is time to carry out a prospective task, or they have missed a prospective task.

The independent variable is the type of reminders the participant will receive. There are 3 conditions; (1) no reminders, only a clock to help with organisation; (2) a clock and static reminders to help with organisation; and (3) a clock with dynamic reminders to help with organisation.

The dependent variables are:
1. Number of tasks attempted
2. Task organisation score (how far participants went over/under time for each task)
3. Prospective Task Accuracy (did the participant carry out prospective tasks on time)
4. Clock Checks (how often did the participant check the clock)
5. Subjective Workload (using NASA-TLX)
6. Subjective Rankings (subjective ranking of the conditions based on preference and suitability for the home)

Other data collected will be:
â¢ Age
â¢ Gender
â¢ Post-experiment exploratory interview

The data will be anonymised and stored digitally on a password protected computer. It will be kept in a lockable filing cabinet when there are paper based field notes. Post-experiment interviews will record audio only and will be transcribed by the experimenter.

Data will be presented and collected via a regular PC computer.

Recruitment will take place via letter/post, email, and phone calls to various care support groups we are already connected with via other projects. We will also recruit â•Ÿonsiteâ•Ž through invited seminars where we will present the project research work and invite people to participate at whatever level involvement they wish. We will also advertise via the MMH project website.

The number of participants will be defined by the volunteer sample of people we have opting in to the MMH project as users. Typically we would want to run between 20 and 30 people for each of the experiments, or 40-60 people over the study as a whole.

Ł COMMENT FROM LARS MUCKLI: was there a typo?
the tasks are designed to take [added NO(?)] longer than 3 minutes to complete.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

Taking part in the study will have no measurable or significant effects on the users taking part.
The decision to give or withhold consent will not affect the participantsâ•Ž right to inquire further about the MultiMemoHome project. Participants are made aware that they can withdraw from being involved at any time.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

Informed consent â•fi the data collection and consent introductory form is attached.

Anonymity â•fi this is guaranteed from the outset and ensured by issuing each participant with a unique I from sign up.

Care will be taken to ensure that the stimuli used are pre tested and/or pre approved from previous research so there are no safety or comfort issues in the delivery of the reminders.

If carrying out the experiment in the homes of older participants, care will be taken not to disrupt the environment of the home. We will respect the privacy of individuals participating in the study.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

The study will only involve consenting adults.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

We pay ´£6 per hour for participation in the experiment. There may be cases where we could reimburse travelling expenses if a target population would rather travel to us than us to them (older people for example).

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

Younger participants will be sourced from a posted advertisement on the University campus. Older participants will be sourced from a mailing list of people who have expressed a desire to participate in the MultiMemoHome project.

Participants will be invited to fill in a consent form (attached). They will receive instructions and be shown the 5 primary tasks and introduced to the prospective task. Participants will be invited to ask questions before the experiment begins and will also be debriefed at the end.

Participants are informed that participation is entirely voluntary and that they can withdraw at any stage throughout the study.

Contact details of the MultiMemoHome Team will be made available to all participants on all documents.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

Participation in this study will be confidential. All data is collected electronically and automatically by the software, and each participant is assigned an anonymous ID. The data is, and never will be connected to the users themselves, only their demographic data (age, gender) which we will ensure cannot identify the person. If there are cases where age, gender and impairments could reasonably identify a person, these will not be published together and the connection will only be known to the researchers.

Any written notes will be kept in locked filing cabinets. Interview audio and computer data will be stored securely with password protection and encryption in compliance with the data protection protocols. Interview audio records will never be published, although anonymised sections of the audio transcripts may be used in publications. Participants will not be identified personally in reports or publications under

any circumstances. Results will be reported in papers and on our website in an anonymised form.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

February 2012.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Experiment will be carried out primarily in the University of Glasgowâ•Žs School of Computing Science. The Usability Lab in Lilybank Gardens, decorated to make it a more friendly environment than the standard office, will be used for most of the experiments. Some older users might request that the experiment is brought to them instead; in this case we will carry out the experiment at a location more agreeable to the participant (such as their own home).

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

All participants will be debriefed at the end of the trial verbally and in writing. Contact details will be given both on the consent form and on this debriefing form and all other forms to be filled in throughout the trial. Participants will be invited to receive a MultiMemoHome newsletter and sign up for future mailings and events.

Multimodal Reminders in the Home

You are invited to take part in a research study to explore different ways of supporting task organization and memory in the home. You will be asked to carry out 5 activities (sorting clean socks into pairs, taking notes from an audiobook, watching TV, ordering groceries and counting household expenses) over a 15 minute period. The aim is to spend 3 minutes on each task, even though each task requires more than 3 minutes to complete. Your objective is not to complete the tasks but to organize your time effectively between them. You can stop, start and switch tasks at any time and carry them out in any order.

In addition, you will need to press 3 buttons at certain points over the 15 minute period to represent cooking food, eating food and taking medicine. You will be given a card with specific instructions at the start of every trial, and there will be a clock available to you at all times to help you organise your tasks.

There will be 3 trials during the experiment which you will receive in a random order. In two of the trials you will receive reminders to warn you that you are deviating from your instructions. In one trial these reminder messages will be delivered using the same method (an audio alert). In the other trial, the reminder messages will be delivered using a variety of methods including a visual text message, a visual icon, synthetic speech, an auditory icon (sound effect) and a tactile signal. These reminders can be used to organise your activities, and we want to know which methods are the most effective.

At the end of each trail there will be a short survey, and at the end of the experiment there will be a final survey and a brief interview. The interview will be recorded (audio only) and transcribed. Only anonymised extracts from the transcripts will be used; the original interview audio files will never be published or made public at any time.

We are interested in finding out about the different types of reminders and how people play the game. You do not need to have technical expertise to take part. In this

experiment we are looking for participants [18-30 / over 60] years old. If you have a significant visual or audio impairment, you must use corrective technology such as glasses/contact lenses or a hearing aid to take part.

Your participation in this study will be confidential. All tapes and notes will be put in locked filing cabinets: computer data will be stored securely under passwords in compliance with data protection protocols. You will never be identified personally in any reports or publications.

We hope your participation will help us improve the design of computer technology for the home. We aim to improve the effectiveness of reminder technology and to make it more appropriate for use at home. We believe this can be done by using different interaction methods depending on the user's preferences, the importance of the message and the home environment. We hope that you will enjoy learning about new research ideas and technologies.

The research will mainly be carried out by the following people:

- [redacted], a PhD student at the University of Glasgow
- Dr. Marilyn McGee-Lennon, a researcher at the University of Glasgow

Your participation is voluntary. You can ask us questions about the study before you decide to participate, and you can withdraw from the study at any time. If you withdraw from the study any data collected will be returned to you or destroyed.

To arrange to take part in the study, or if you have any questions, please contact:

[redacted]
Computing Science,
University of Glasgow,
8–17 Lilybank Gardens,
Glasgow, G12 8QQ
[redacted]

You can also visit the MultiMemoHome website for more information on what we do.

http://MultiMemoHome.org

Multimodal Reminders in the Home

Please Tick

1. I confirm that I have read and understand the information sheet provided. I have had the opportunity to consider the information and to ask questions. I have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary, and that I am free to withdraw at any time without giving any reason, I understand that my care or legal rights will not be affected. ☐

3. I understand that the information collected in this study will be confidential, anonymous and protected. ☐

4. I understand that taking part in this study will not have a directly measurable effect on my health or well-being. ☐

5. I understand that my responses will be recorded but anonymised. I give permission for this information, including the use of quotations, to be used in any presentation of the research. I understand that my anonymity will be assured. ☐

6. I agree to take part in the above study. ☐

| --- | --- | --- |
| Name of Participant | Date | Signature |

| --- | --- | --- |
| Name of Experimenter | Date | Signature |

REPORT ON ETHICS PROPOSAL
REF# CSE00991 (Version 1)
TITLE: meiker
SUBMITTED BY: meike ramon, visiting research fellow
FROM THE: Institute of Neuroscience and Psychology
REVIEWERS: Hester Parr, Lars Muckli, Rob Jenkins

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The goal of this proposal is to investigate neural correlates of global/local processing during face identification. On the one hand we are interested in the patterns of brain activity associated with a certain type of stimulus processing, a research question which to date remains unclarified in the field of face processing. We will use a novel gaze-contingent stimulation paradigm recently proposed by Miellet et al. (2011). In this paradigm local and global information of distinct identities is presented simultaneously, and changes online as a function of where subjects fixate on the face. Focusing on oculomotor behavior, these authors found that no single processing style dominates during face identification, but that both are equally likely to be exhibited on a trial-to-trial basis. Moreover, they observed that the location of observersâ first fixation within the face determined the type of processing dominating the identity observers reported to perceive. In this experiment we would also like to explore the neural antecedents preceding a given mode of processing. Subjects will explore these stimuli containing combined information from their colleaguesâ faces (members of the Department of Psychology), and will be asked to decide which of two colleagues were depicted. Our analyses will focus specifically on regions of the â coreâ and â extended systemâ of face processing (e.g. Haxby et al., 2007), as well as on early visual areas, defined using standard face localizers and retinotopic mapping procedures. We will use both uni- and multivariate analysis techniques to examine patterns of neural activity preceding and associated with subjectsâ visual exploration of personally familiar face iHybrids.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

The investigatorsâ research funding will cover general research costs (subject payment, publication costs).

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

The investigation will be conducted according to the â standard fMRI experimentâ guidelines. The experiment will consist of three stages: retinotopic mapping of early visual areas, localizing face-preferential regions in the brain and actively exploring iHybrids in a gaze-contingent 2 alternative forced-choice identification task.

1. Retinotopic mapping of early visual areas.
Early visual areas will be mapped using a standard phase-encoded polar angle protocol. This consists of a ray-shaped checkerboard rotating around a central fixation point, stimulating different parts of the visual field in time. The ray starts at the right horizontal meridian and rotates clockwise for a full cycle of 360´° within 96s. Ten repetitions of rotation will be performed. Based on the polar-angle mapping experiment,

the boundaries of retinotopic cortical areas V1, V2 and V3 can be estimated.

2. Localizing face-preferential brain regions.
Blocks of intact or phase-scrambled face or object stimuli will be back-projected on the screen while subjects perform a one-back task. Each of the two runs will last 11 minutes and will consist of 24 alternating blocks (18 s each) separated by 9 s of fixation. Within each block 18 images will be presented for 750 ms followed by a 250 ms blank screen in each block.

3. iHybrid experiment.
Participants will complete four 15 min runs (45 trials/run). On each trial subjects will fixate a cross located on one side of the screen for 5 s, then an iHybrid stimulus will be presented in the center of the screen for 1 s, upon which they will be required to indicate which of two faces were perceived (4 s to respond). To allow the BOLD signal to return to baseline, a blank screen with only a central fixation cross will be presented on average 10 s (duration jittered randomly between 8 and 12 s).

The experiment will take approximately 1.5 hours to complete and we will test 15 participants.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

There is no documented side effect to being scanned by MRI.
Participants are aware of the contra-indications by a detailed information form. In addition with a qualified person, each volunteer reads through and signs a safety questionnaire.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The ethical issues associated with fMRI studies have been described in the â standard fMRI experimentâ protocol. All safety guidelines, as well as guidelines for using fMRI facilities at the CCNi, will be strictly followed. Both investigators are highly experienced in using fMRI. Participants will be given all the necessary information regarding the technique and procedure, as provided in the Template for standard fMRI experiments. They will be given full contact information for the responsible investigators.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Participants will be normal adult volunteers.

COMMENT FROM HESTER PARR: The information sheet should have an updated date (not 2009). Two contact names should be provided so that any queries can be redirected if the researcher is unavailable.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

Given the selective sample of potential participants, subjects will receive a compensation of ´£20/hour.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

Participants will be recruited personally as only members of Department qualify as subjects. Screening questionnaires and written informed consent will be obtained from participants prior to the study.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

"Standard fMRI studies" are in accord with the BPS code of conduct.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

Participantsâ anonymity will be assured by only referring to a subject number during analysis and data storage.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

15th February 2012.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

The project will be carried out in the Centre for Cognitive Neuroimaging, in the Department of Psychology, University of Glasgow.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

Participants will be given contact details of the investigators. They will be encouraged to ask enquire about anything they are unsure of regarding the experiment or technique.

Study Information Sheet - MRI

Title of Project: Standard Functional Magnetic Resonance Imaging (fMRI) Study

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please ask us. Take time to decide whether or not you wish to take part.
Thank you for reading this.

What is the purpose of this study?
This study will use functional magnetic resonance imaging (fMRI) to take pictures of the activity of your brain while you identify faces of people with whom you are personally familiar.

Why have I been chosen?
You have been chosen because you have volunteered to participate in research studies using functional magnetic resonance imaging.

Who is organizing this study?
This study is organized by Meike Ramon, Luca Vizioli and Lars Muckli.

What will happen to me if I take part?
Before you take part a member of staff will ask you some questions to ensure that you have no metal within you before you enter the strong magnetic field of the MRI scanner. You may be asked to remove coloured contact lenses and to change (we provide training suits in case there is metal on your clothes). You will then be asked to lie in the scanner and the scanning will start. The scanning can be noisy so we shall give you headphones or earplugs to reduce this noise. If you are very claustrophobic, that is if you feel very uncomfortable in small closed environment, then it may not be appropriate for you to be scanned.
During the scan you will be asked different things. After a structural scan of your brain during which you can close your eyes, you will be presented with gratings that you will simply have to look. Then you will see images of cars, faces and scrambled objects; here you will simply have to press a button on the response pad when one image is repeated. Lastly, you will see an image of a face, and then you will be asked to decide which of two identities you perceived. There is no right or wrong answer, as information from both faces will be present; we simply want to know which information had more influence on what you perceived.
Whatever the nature of the task, it will always be explained to you before you sign the consent form, and will never involve any painful stimulation. We will repeat the instructions before each task. At all time you will remain in contact with us through the intercom and you will have a buzzer in your hand, in case you want us to stop the scan and come in the scanner room. We will ask you in all cases to try to keep your head as still as possible. To help you do so, we will place foam pads under your neck and on the side of your head.
The scanning session will take about one and a half hours, although you will not actually be scanned for more than 60 minutes of this time.
What is the device involved?
We can learn a great deal about how the brain works by looking at the blood flow to different

parts of the brain whilst the brain performs different tasks. We measure brain function using images taken with a magnetic resonance imaging scanner. This scanner uses a strong magnetic field to create detailed images of brain structure and function. By taking a series of images whilst you perform a task we can build up a picture of the brain areas activated by this type of task. The scan does not involve any injections or X-rays.

What are the possible risks/side effects of taking part?

The scanner can be loud when it takes images, and you will be given earplugs and/or headphones to block out some of the sound. Also, the scanner space is quite reduced, and people who are uncomfortable in small or confined spaces may not be able to participate. If this applies to you, remember that you may withdraw from the study at any time without explaining why. MRI is generally thought to be a safe, non-invasive imaging technique. There are no known risks or side effects, except that in less then 5% of people the scanning might induce a peripheral nerve stimulation (felt as small twitches); this is not dangerous but might induce discomfort. In some very rare cases, being in the magnetic field may also trigger vertigo (dizziness). In the unlikely case you experience one of these feelings, please alert us and withdraw from the study, should you wish to do so. Although there is no evidence of danger, as a natural precaution we do not wish to include any women who may either be pregnant or have any reason to believe they may be pregnant.

What are the possible benefits of taking part?

We will reimburse you for your time and travel, and you will have the pleasure of knowing that you have made a contribution to our understanding of the relationship between brain and behaviour. However, there will be no direct benefits accruing in terms of your treatment.

What happens at the end of the study?

The results of this study may be published in a journal or used for teaching purposes. The results may also be presented at scientific meetings, or in talks at academic institutions. Results will always be presented in such a way that data from individual volunteers cannot be identified.

Confidentiality - who will have access to the data?

The data will be stored on a secure network and only members of the Centre for Cognitive Neuroimaging (CCNI) of the Psychology Department at University of Glasgow will have access to the data. It is possible that the data may be used by researchers working with CCNi for other similar ethically approved research protocols, where the same standards of confidentiality will apply. In all cases your name will not be used and your data will be identified only by a 5 digit code.

Will my General Practitioner (GP) be informed?

This is not a diagnostic scan. Your GP will not be routinely informed if your participation in this study has been as a normal volunteer. Brain images will NOT be routinely examined for abnormalities by a trained neuro-radiologist. Like faces, brains come in all shapes and sizes, however, so that there are many normal variations of what the scan shows. There is a chance of less than 1:100 that your scan may, by chance, show a significant abnormality of which you are unaware.

There is no guarantee that abnormalities will be picked up. It is possible, however, that an abnormality is detected, by chance, in the scan of a normal volunteer by the radiographer or one of the investigators. This is referred to as incidental finding. If this happens, your brain scan will be examined by a trained neuro-radiologist who will provide an expert opinion on the importance of the incidental finding for your health, and on the potential health benefit of disclosing this information to you. There are three possible cases:

- Unlikely net benefit: If the incidental finding is a condition not likely to be of serious importance for your health, or whose likely health importance cannot be ascertained, that

finding will not be disclosed to you or your GP.

- Possible net benefit: If the incidental finding consists of a nonfatal condition that could possibly be grave or serious but that cannot be avoided or improved, then when you are likely to deem that information important, that finding will be disclosed to you with appropriate guidance. You may also choose not to be informed should such an unlikely finding apply to you. In that case, please tick the appropriate box on the consent form.
- Strong net benefit: In the very unlikely case of a life threatening condition or a condition likely to be grave and that can be treated or improved, this information will be disclosed to you and you will be appropriately advised. Further action will be decided which could involve further imaging and/or a discussion between you and your GP or an appropriate clinician.

What if new information becomes available?
If the new information pertains specifically to the health of the volunteer, the volunteer may be informed (see previous paragraph). Otherwise, new information will be published through traditional scientific channels (journal articles, conference presentations).

What will happen to the study results?
In accordance with good research practice, they will be kept securely for a minimum of 10 years and possibly indefinitely in the CCNi data archive.

Will I receive a financial compensation?
Yes; You will receive £20 per hour for your participation in this study.

Can I ask questions about the research project?
Yes; We will answer all questions you may have that are related to the research project to which you agree to participate (see contact details below)

Can I withdraw from the study?
Yes. You participation to this research project is voluntary, and you may withdraw from the research at any time and for any reason, without explaining why, and this will not affect your medical care or legal rights.

Can the investigators interrupt the study?
The research may be interrupted by the researchers at any time, and for several possible reasons such as new requirements for the selection of participants, for example.

Are there compensation arrangements if something goes wrong?
In the unlikely event of anything untoward happening, the University of Glasgow provides insurance for claims.

This research study has been approved by the Ethics Committee of the Faculty of Information and Mathematical Sciences at University of Glasgow.

Contact details

Name	Meike Ramon		
Address	Dept of Psychology, 58 Hillhead Street, G128QB Glasgow		
Telephone	07909-265473	Email	m.ramon@psy.gla.ac.uk

Thank you for considering taking part in this study. Our research depends entirely on the goodwill of potential volunteers such as you. If you require any further information, we will be pleased to help you in any way we can.

STUDY INFORMED CONSENT - MRI
(This form must be completed prior to any scanning)

Study title: Investigating global/local face processing with fMRI to study predictive neural coding

☐ I confirm that I have read and understood the Study Information Sheet provided to me for the above study and have had the opportunity to ask questions.

☐ I understand the risks and contraindications including pregnancy.

☐ I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected,while being entitled to my per/hour payment.

☐ I understand that this is not a diagnostic scan but that should, by chance, something abnormal be noticed, an expert neuro-radiologist will examine my scans. There is no guarantee, however, that if there is an abnormality, it will be detected.

☐ I do not wish to be informed if a nonfatal condition likely to be grave or serious but that cannot be avoided or ameliorated is discovered in my brain (non mandatory for participating).

☐ I understand that the research data may be accessed by researchers working at or in collaboration with the CCNi in similar ethically approved studies but that at all times my personal data will be kept confidential in accordance with data protection guidelines.

I have initialled the above boxes myself and I agree to take part in the study.

_____

SIGNATURE OF VOLUNTEER

Name: _____ Date: _____

_____

SIGNATURE OF WITNESS

Name: _____ Date: _____

Subject ID _____

Centre for Cognitive Neuroimaging
Institute of Neuroscience and Psychology
University of Glasgow
58 Hillhead street, Glasgow G12 8QB
Tel: +44 (0)141-330 5089, email: info@psy.gla.ac.uk

REPORT ON ETHICS PROPOSAL
REF# CSE00967 (Version 1)
TITLE: Alf: Automated Logging Facility
SUBMITTED BY: [redacted], Student
FROM THE: Computer Science
REVIEWERS: Christoph Scheepers, Hester Parr, Rob Jenkins

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The purpose of this research is to explore how useful implicitly logged data can analyse users searching behaviour and habits. Potential participants will use the Myse search engine to find information. They will be asked to use this application for between 2-4 weeks. Over this time the participants will search and query just as they normally would. Their interactions with the search engine will be logged. Our aim is to firstly test an implicit client side logging component, and then with the data collected analyse and visualise search behaviours, identifying common patterns of search interaction.

Ł COMMENT FROM CHRISTOPH SCHEEPERS: Information sheet:
* Double-check the date (1st of January 2012 has already passed)
* Briefly explain in non-expert terms what "implicitly logged user data" means, what information will be gathered, etc.

Consent form:

* add a bullet point reminding participants that they can withdraw their consent at any time

Ł COMMENT FROM HESTER PARR: Agree with above comments

Ł COMMENT FROM ROB JENKINS: Please provide more details about what data will be collected from users.
Please review the BPS guidelines concerning informed consent.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

PI Monies

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Participants: 8-16 participants will be recruited to undertaken this study. The study will take place within the participants own environment. They will be debriefed within the department of what is expected from them, then asked to use the system at their own leisure during the 2-4 weeks period.

Equipment: Participants personal laptops/computer, which have access to the internet.

Max total time: Participants will be asked to use the system for at least 2 weeks, and at most 4 weeks.

Equipment: A laptop and a web browser.

Total Time of Experiment: 2-4 weeks plus questionnaires, briefing and debriefing.

Search System: An instrumented web search engine interface will be used that connects to The Microsoft Bing search API. An instrumented search engine will be developed and then deployed to participants using the PuppyIR framework (from the EU Project PuppyIR). This application, will be almost identical to the look and feel of a standard web search engine, and will be used to capture the participantâ•Žs querying and assessing behaviours.

Ł COMMENT FROM HESTER PARR: How will they be recruited?

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The experiment will be set on the participants personal computer. I.e. it will be normal computer usage.
In all search tasks, the participantsâ•Ž interactions, e.g. entered queries, clicks, mouse hovers, key presses, etc., are recorded so that their search behaviours and system performance can be analysed and measured. The important factors indicating search performance, for example, are the number of relevant webpage they encounter, the number of searches to achieve the tasks, and their time spent on finding answers. No information will be recorded to personally identify the participant to their search interaction data.

The search engine results will be provided by Bing, and so will be of a high quality. Thus the participant should not be adversely affected in terms of the searching.

As it will be unnatural at first to visit and use an alternative search engine, we will suggest the user set up their browser to make this the default search engine, and default page that they visit.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The main concern is capture and collection of the data associated with participants and their corresponding interaction data. As mentioned above all data recorded will ensure anonymity. And all personal data will be kept confidential.
At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

Ł COMMENT FROM CHRISTOPH SCHEEPERS: The point about vetting the interaction logs could also be made clear in the information sheet (might make participants feel more in control).

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

All participants will be over 18, and likely to be university students.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

None. Subjects will volunteer to undertake the study. However, all participants that undertake the study will be entered into a prize draw for an iPod Nano (drawn after two weeks usage), and and iPod touch (after 4 weeks of usage).

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

1.A number of posters will be produced to advertise the study to students, and put up throughout the university on billboards and notice boards.
A pdf of the poster will also be available online, and linked to, from social media groups for students at Glasgow University (i.e. the facebook group).

Participants will be required to give consent through an automated online consent system. This requires participants to enter their email address, check the appropriate boxes to give their consent. Once submitted, the online system generates an email (explaining their consent options and provides them with an information sheet for the study, along with a link to confirm their consent). The participant needs to click this link to verify their email and to confirm their consent.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The proposed research is in accord with the code of conduct and framework of research ethics.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All the interaction and demographics data collected will be stored securely on servers with the School of Computing Science. The name, email addresses an demographics of participants will be stored for the duration of the project. These will be stored securely and not associated with or linked to the interaction, search questionnaire data or demographics data.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

1.The expected state date will be January, 2012 and take approximately 4 weeks to complete.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

The location will vary depending on when and where the participant searches the internet. We imagine this will be on their own PC/laptop, the university computers and/or mobile devices.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

1.After the participant completes the experiment, the reasons behind the experiment shall be explained to

them. If the participant gave consent to be informed about the findings of the study, then a summary of the results of the study will be emailed to participants once the results are complied. At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

Ł COMMENT FROM HESTER PARR: I think 'the reasons behind the experiment shall be explained to them' should be up-front in the info sheet.

REPORT ON ETHICS PROPOSAL
REF# CSE00967 (Version 2)
TITLE: Alf: Automated Logging Facility
SUBMITTED BY: [redacted], Student
FROM THE: Computer Science
REVIEWERS: Joemon Jose, Rob Jenkins, Vincent Macaulay

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The purpose of this research is to explore how useful implicitly logged data can analyse users searching behaviour and habits. Potential participants will use the Myse search engine to find information. They will be asked to use this application for between 2-4 weeks. Over this time the participants will search and query just as they normally would. Their interactions with the search engine will be logged. Our aim is to firstly test an implicit client side logging component, and then with the data collected analyse and visualise search behaviours, identifying common patterns of search interaction.

What is meant by implicit data, is a users mouse clicks, hovers, key presses and scrolling habits/patterns.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

PI Monies

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Participants: 8-16 participants will be recruited to undertaken this study. The study will take place within the participants own environment. They will be debriefed within the department of what is expected from them, then asked to use the system at their own leisure during the 2-4 weeks period.

Equipment: Participants personal laptops/computer, which have access to the internet.

Max total time: Participants will be asked to use the system for at least 2 weeks, and at most 4 weeks.

Equipment: A laptop and a web browser.

Total Time of Experiment: 2-4 weeks plus questionnaires, briefing and debriefing.

Search System: An instrumented web search engine interface will be used that connects to The Microsoft Bing search API. An instrumented search engine will be developed and then deployed to participants using the PuppyIR framework (from the EU Project PuppyIR). This application, will be almost identical to the look and feel of a standard web search engine, and will be used to capture the participantâ•Žs querying and assessing behaviours.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The experiment will be set on the participants personal computer. I.e. it will be normal computer usage. In all search tasks, the participantsâ•Ž interactions, e.g. entered queries, clicks, mouse hovers, key presses, etc., are recorded so that their search behaviours and system performance can be analysed and measured. The important factors indicating search performance, for example, are the number of relevant webpage they encounter, the number of searches to achieve the tasks, and their time spent on finding answers. No information will be recorded to personally identify the participant to their search interaction data.

The search engine results will be provided by Bing, and so will be of a high quality. Thus the participant should not be adversely affected in terms of the searching.

As it will be unnatural at first to visit and use an alternative search engine, we will suggest the user set up their browser to make this the default search engine, and default page that they visit.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The main concern is capture and collection of the data associated with participants and their corresponding interaction data. As mentioned above all data recorded will ensure anonymity. And all personal data will be kept confidential.
At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

All participants will be over 18, and likely to be university students.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

None. Subjects will volunteer to undertake the study. However, all participants that undertake the study will be entered into a prize draw for an iPod Nano (drawn after two weeks usage), and and iPod touch (after 4 weeks of usage).

Ł COMMENT FROM VINCENT MACAULAY: This contradicts the Information Sheet: "Recompense of ?10 will be
given to participants who complete 2 weeks, and ?20 for
participants who complete 4 weeks."

Ł COMMENT FROM JOEMON JOSE: agree with the above comment

Ł COMMENT FROM ROB JENKINS: Please clarify payment ambiguity.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

1.A number of posters will be produced to advertise the study to students, and put up throughout the university on billboards and notice boards.
A pdf of the poster will also be available online, and linked to, from social media groups for students at Glasgow University (i.e. the facebook group).

Participants will be required to give consent through an automated online consent system. This requires participants to enter their email address, check the appropriate boxes to give their consent. Once submitted, the online system generates an email (explaining their consent options and provides them with an information sheet for the study, along with a link to confirm their consent). The participant needs to click this link to verify their email and to confirm their consent.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The proposed research is in accord with the code of conduct and framework of research ethics.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All the interaction and demographics data collected will be stored securely on servers with the School of Computing Science. The name, email addresses an demographics of participants will be stored for the duration of the project. These will be stored securely and not associated with or linked to the interaction, search questionnaire data or demographics data.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

1.The expected state date will be January, 2012 and take approximately 4 weeks to complete.

Ł COMMENT FROM VINCENT MACAULAY: Date already gone.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

The location will vary depending on when and where the participant searches the internet. We imagine this will be on their own PC/laptop, the university computers and/or mobile devices.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

1.After the participant completes the experiment, the reasons behind the experiment shall be explained to them. If the participant gave consent to be informed about the findings of the study, then a summary of the results of the study will be emailed to participants once the results are complied. At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

Ł COMMENT FROM VINCENT MACAULAY: Is there any good reason why the participants can’t be told the reasons behind the experiment before they do it?

REPORT ON ETHICS PROPOSAL
REF# CSE00967 (Version 3)
TITLE: Alf: Automated Logging Facility
SUBMITTED BY: [redacted], Student
FROM THE: Computer Science
REVIEWERS

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The purpose of this research is to explore how useful implicitly logged data can analyse users searching behaviour and habits. Potential participants will use the Myse search engine to find information. They will be asked to use this application for between 2-4 weeks. Over this time the participants will search and query just as they normally would. Their interactions with the search engine will be logged. Our aim is to firstly test an implicit client side logging component, and then with the data collected analyse and visualise search behaviours, identifying common patterns of search interaction.

What is meant by implicit data, is a users mouse clicks, hovers, key presses and scrolling habits/patterns.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

PI Monies

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Participants: 8-16 participants will be recruited to undertaken this study. The study will take place within the participants own environment. They will be debriefed within the department of what is expected from them, then asked to use the system at their own leisure during the 2-4 weeks period.

Equipment: Participants personal laptops/computer, which have access to the internet.

Max total time: Participants will be asked to use the system for at least 2 weeks, and at most 4 weeks.

Equipment: A laptop and a web browser.

Total Time of Experiment: 2-4 weeks plus questionnaires, briefing and debriefing.

Search System: An instrumented web search engine interface will be used that connects to The Microsoft Bing search API. An instrumented search engine will be developed and then deployed to participants using the PuppyIR framework (from the EU Project PuppyIR). This application, will be almost identical to the look and feel of a standard web search engine, and will be used to capture the participantâ•Žs querying and assessing behaviours.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The experiment will be set on the participants personal computer. I.e. it will be normal computer usage.
In all search tasks, the participantsâ•Ž interactions, e.g. entered queries, clicks, mouse hovers, key presses, etc., are recorded so that their search behaviours and system performance can be analysed and measured. The important factors indicating search performance, for example, are the number of relevant webpage they encounter, the number of searches to achieve the tasks, and their time spent on finding answers. No information will be recorded to personally identify the participant to their search interaction data.

The search engine results will be provided by Bing, and so will be of a high quality. Thus the participant should not be adversely affected in terms of the searching.

As it will be unnatural at first to visit and use an alternative search engine, we will suggest the user set up their browser to make this the default search engine, and default page that they visit.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The main concern is capture and collection of the data associated with participants and their corresponding interaction data. As mentioned above all data recorded will ensure anonymity. And all personal data will be kept confidential.
At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

All participants will be over 18, and likely to be university students.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

None. Subjects will volunteer to undertake the study.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

1.A number of posters will be produced to advertise the study to students, and put up throughout the university on billboards and notice boards.
A pdf of the poster will also be available online, and linked to, from social media groups for students at Glasgow University (i.e. the facebook group).

Participants will be required to give consent through an automated online consent system. This requires participants to enter their email address, check the appropriate boxes to give their consent. Once submitted, the online system generates an email (explaining their consent options and provides them with an information sheet for the study, along with a link to confirm their consent). The participant needs to

click this link to verify their email and to confirm their consent.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The proposed research is in accord with the code of conduct and framework of research ethics.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All the interaction and demographics data collected will be stored securely on servers with the School of Computing Science. The name, email addresses an demographics of participants will be stored for the duration of the project. These will be stored securely and not associated with or linked to the interaction, search questionnaire data or demographics data.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

1.The expected state date will be March, 2012 and take approximately 4 weeks to complete.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

The location will vary depending on when and where the participant searches the internet. We imagine this will be on their own PC/laptop, the university computers and/or mobile devices.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

If the participant gave consent to be informed about the findings of the study, then a summary of the results of the study will be emailed to participants once the results are complied. At the end of the study we will give participants the chance to vet their interaction logs so that they can remove anything that they would not like to include in the analysis.

INFORMATION SHEET

Implicit User Tracking

The aim of this experiment is to conclude on the importance of implicitly logged data. The implicit data looking to be logged is all the mouse clicks, hovers, key presses and window scrolling carried out by the user. The actions performed by you on the interactive search engine 'Myse' will be monitored, and later analysed along with other users' actions to determine how effective implicit user logging is. Over the 2-4 week period, you will be provided with a search engine to you within your browser. This will be the search engine you shall use to carry out your everyday searches, it has been designed to incorporate the same features that you would come to expect to be in a search engine. Please note that it is the system that is being evaluated, and not you. Also, as part of the study you will be asked to answer some questionnaires on about your demographics and about your experience of searching.

The data that is collected and stored throughout this experiment will be stored on the PuppyIR server in the University of Glasgow. It is only accessible to my supervisor and myself. Furthermore it shall only be stored for a month, after the experiment is completed, and the logs have been analysed it will all be removed

If you wish to participant in this study, then all information drawn from our evaluations will be anonymized, and no participant will be identified in person in any published material.

This experiment will start Monday 5th March 2012. Participant in this study is voluntary, and you may withdraw consent to use the information you provided at any time before the 14tht of March, 2012.

If you have any questions regarding this experiment, or would like to obtain information regarding the experimental results following [redacted]. please contact myself, [redacted] or my supervisor, Leif Azzopardi. (Leif.Azzopardi@glasgow.ac.uk).

If you have any problems with the way this experiment is conducted please contact my supervisor Leif Azzopardi.
(Leif.Azzopardi@glasgow.ac.uk).

CONSENT SHEET

Implicit User Tracking

In signing up to this experiment, I agree to participate in the aforementioned study. I have read the Information Sheet and have had the opportunity to ask questions and have them answered. I am aware that I may withdraw my consent in participating in this experiment at any time. Below I have indicated which parts of the study, I agree to participate in:

- ☐ I understand that I am able to ask questions about this study at any time.
- ☐ I understand that my name will not appear in any published document relating to research conducted as part of this programme.
- ☐ I am willing for anonymised data from my search sessions and questionnaires that I have submitted may be quoted in papers, journal articles and books that may be written by the researchers.
- ☐ I would like information about the results of this study.

Name of Participant:

Email of Participant:

[On submission of the electronic form, an email will be generated and sent to the participate. The email will contain the Information Sheet, Confirmation of their consent choices, and a link to confirm that will participate in the study under the conditions that the have selected.]

REPORT ON ETHICS PROPOSAL
REF# CSE00985 (Version 1)
TITLE: Evaluation of feedback control methods using electrical stimulation of muscles
SUBMITTED BY: [redacted], PhD student
FROM THE: Mechanical Engineering
REVIEWERS: Paddy O'Donnell, Rob Jenkins, Stephen Brewster

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

Background

Understanding human control of standing and especially the fact that humans can maintain vertical posture, in other words can balance in the sagittal plane, has been an area of research for the last few decades. In terms of control engineering postural balance can be considered as a feedback system in which the controller is the human operator who is maintaining the body upright in the presence of external disturbances. The dominant paradigm to describe this control system is continuous-time predictive control, [1-2]. More recently, alternative explanations are evolving which explain the control process as an intermittent open loop process [3].

Functional electrical stimulation (FES) is a technique which aims to replicate or amend missing neuromuscular function using neuromuscular electrical stimulation. It is widely used in the rehabilitation of a number of neuromuscular impairments such as spinal cord injury (SCI), Parkinsonâ•Žs disease, stroke and multiple sclerosis. FES is often associated with a non-physiological stimulation pattern which leads to inefficient muscular response and fast fatigue of the stimulated muscles. A more physiological stimulation paradigm, based on understanding of the human controller, may lead to increased efficiency and lower fatigue in applications of FES.

Purpose of the research
The purpose of this research is to evaluate different control approaches in a task involving human muscles activated by electrical stimulation as the actuators. The generated muscle moment is measured and applied to virtual loads of different dynamic order which are subject to a disturbance signal. We aim to compare the performance of the human controller (ie. a human operator adjusting the muscle stimulation manually to achieve the control task) with two artificial controllers which are based on different descriptions of the human controller.
The study will be conducted with able-bodied volunteers with a view towards developing techniques which are suitable to enhance FES efficiency in the rehabilitation of neuromuscular disease such as spinal cord injury.

References
[1] D.L. Kleinmann, â•Ÿâ•ŸOptimal control of linear systems with time-delay and observation noiseâ•Žâ•Ž IEEE Trans Automatic Control, vol.14, pp.524-527, 1969
[2]D.l. Kleinmann, S. Baron and W.H. Levison, â•Ÿâ•Ÿ An optimal control model of human reponse. I: theory and validationâ•Žâ•Ž Automatica, vol.6, pp.357-369, 1970

[3]P.Gawthrop, I.Loram, M.Lakie and H.Gollee â•Ÿâ•Ÿ Intermittent control: A computational theory of human controlâ•Žâ•Ž Biol Cybern, vol.104, pp.31-51, 2011

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

The project is funded by the Engineering and Physical Sciences research Council (EPSRC) EP/F068514/1, EP/F069022/1, EP/F06974X/1, â•œ Intermittent predictive control of man and machineâ•š.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

In this study, the moment generated at the ankle of a human subject in response to FES applied to the calf muscles will be measured and used as an input to a virtual load running on a computer. The control task involves keeping the load position close to a predefined constant reference in the presence of external random disturbances (â•œcompensatory controlâ•Žâ•Ž). Two different setups will be evaluated:

For the study three different compensatory tracking conditions will be applied:
1) Voluntary control: a human operator (the experimenter) will adjust the stimulation intensity manually, using a joystick, to generate the ankle moment required to control the load. The load position will be displayed on the computer screen.
2) Artificial control: the human operator will be replaced by an artificial controller which adjusts the stimulation intensity in response to load position.
The same experimenter will act as the human operator in condition (1) for all subjects. In condition (2), two different control approaches will be evaluated: (i) continuous-time predictive control, and (ii) intermittent predictive control.
Stimulation to the calf muscles will be applied using standard adhesive surface electrodes, through a computer controlled neuromuscular stimulator (RehaStim, Hasomed GmbH, Germany). The stimulator will apply small bi-phasic current controlled pulses with variable pulsewidth (up to 500ms) at a constant stimulation rate.
Three different load conditions will be tested: (i) stable 1st order load, (ii) stable 2nd order load, and (iii) unstable 2nd order load. Load condition (iii) is based on the dynamics of human balance which can be modelled as a 2nd order inverted pendulum. Load conditions (i) and (ii) will have similar dynamics, with (ii) being a stable version of condition (iii).

We aim to recruit a total of 10 subjects for this study.
Each trial will last 200 sec with 2 minutes break.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

Each subject will be required to attend two experimental sessions and the duration of each session will be approximately 1 hour. Procedures in both sessions will be identical, with the second session a repeat of session 1.

At the start of each session, a pair of surface FES electrodes will be placed over the calf muscles of both

legs. The optimum current intensity which will give a strong contraction, without being painful for the subject will be identified for each leg and then set constant. The stimulation pulse width will vary from 0 to 500 μs and the frequency of stimulation will be 30 Hz for all subjects. The subject will then be asked to step on two force plates (OR-6 AMTI, Massachusetts, USA) and be loosely fastened into a custom build frame which is similar to a standard rehabilitation standing frame, supporting the subjectâ•Žs at the knees and hip while preventing forward and backward movement. The frame will be setup in such a way that the subject will be in a slight squad position while their quadriceps muscle are relaxed.

In the first part of the experiment, the experimenter will control the virtual load models manually via a joystick which adjusts the intensity of FES applied at the calf muscles of the participant, thus modulating the generated moment, while the virtual load position is displayed on a screen. Three different load orders (see above) will be evaluated in separate trials, each lasting 200 seconds.

In the second part of the experiment the setup will be identical, except that the intensity of FES will now be controlled by one of two artificial controllers. To obtain a black-box model of the neuromuscular system, the ankle moment generated in response to randomly varying stimulation patterns will be recorded and used to obtain a dynamic transfer function which is then used in the model based controller design. This is followed by evaluation of the each of the controllers with the three different loads, with each trial lasting 200 seconds.

Ł COMMENT FROM STEPHEN BREWSTER: so can the FES cause pain or longer lasting effects? who will apply the electrodes, someone who has expertise in using the system?

could a participant fall? how do you stop this

Ł COMMENT FROM ROB JENKINS: Please clarify possible effects of FES on the participant, especially determination of pain threshold and effects of the strong muscle contraction.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The ethical concerns are minor. All equipment conforms to the relevant regulations concerning biomedical devices, ensuring in particular that subjects will be safely isolated from mains electricity supply at all times.

Electrical stimulation via surface electrodes is widely used, is not known to be harmful, or to present risk of injury, provided that the appropriate safety guidelines are followed. Neurologically intact subjects will experience some degree of discomfort from the sensation of the electrical stimulation applied. The stimulation intensity will be chosen in such a way that this discomfort is kept as small as possible. Close supervision of the subjects is ensured at all times by the researchers. Subjects will be free to withdraw from the study, at any time, they feel uncomfortable with the test procedures. All test results will be treated with strict confidentiality.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Able-bodied adult subjects, with no known skin allergies or musculoskeletal problems will take place in the experiments. No children or people with mental illness, disability or neurological impairment will take place in the study.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

No payment will be made to any subject.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

Subjects will be recruited through personal contacts and advertisement, primarily from staff and research students within the School of Engineering. They will be asked to meet the investigators to discuss the project and whether they would be suitable as a subject.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

The participantâ•Žs information will be anonymised by assigning a subject number and will not be passed on to anyone outside the group of researchers. Photographic material depicting subjects may be published, but only with consent of the individuals concerned.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

15 February 2012

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

The experiment will take place in the laboratories of the Centre for Rehabilitation Engineering (CRE) School of Engineering, University of Glasgow, Rooms 647/648, James Watt South Building.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

Subjects will be offered to show them the data recorded from the different controller and load conditions, and a brief initial interpretation of the results.

INFORMATION SHEET

1. Study Title: Evaluation of feedback control methods using electrical stimulation of muscles.

Investigators: [redacted] Dr.Henrik Gollee

2. Invitation:

You are invited to take part in a research study. Before you decide whether to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

3. Purpose of the study:

Understanding human control of standing, especially the fact that humans can maintain vertical posture, has been an area of research for the last few decades. In terms of control engineering, postural balance can be considered as a feedback system in which the controller is the human operator who is maintaining the body upright in the presence of external disturbances. Various hypotheses exist which aim to explain the mechanisms governing these control processes.

The purpose of this research is to evaluate different control approaches in a task involving human muscles activated by electrical stimulation as the actuators. The generated muscle moment is measured and applied to virtual loads of different dynamic order which are subject to a disturbance signal. We aim to compare the performance of the human controller (ie. a human operator adjusting the muscle stimulation manually to achieve the control task) with two artificial controllers which are based on different descriptions of the human controller.
The study will be conducted with able-bodied volunteers with a view towards developing techniques which are suitable to enhance FES efficiency in the rehabilitation of neuromuscular disease such as spinal cord injury.

4. Why would your participation be useful?

Your participation in this study will provide important data for the further investigation of the physiological mechanism of postural balance. This data will also be used to further develop control systems for neuromuscular rehabilitation in people with neurological impairment such as spinal cord injury.

5. Do you have to take part?

No. Taking part in this research is entirely voluntary. It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are free to withdraw at any time and without giving a reason or prior notice.

6. Procedures

You will be asked to participate in two experimental sessions, each of which will be approximately 1 hour in duration. Both sessions will involve the same protocol, which is outlined below.

At the start of each session, a pair of surface electrodes will be placed over the calf muscles of both your legs. The optimum stimulation intensity which will give a strong contraction, without being unpleasant for you, will be identified. You will then be asked to step on two force plates and be loosely fastened into a custom build frame which is similar to a standard rehabilitation standing frame, supporting you at the knees and hip while preventing forward and backward movement. The frame will be setup in such a way that you will be in a slight squad position while their quadriceps muscle are relaxed.

In the first part of the experiment, the experimenter will control the virtual load models manually via a joystick which adjusts the intensity of FES applied at your calf muscles. This will modulate the generated moment, while the virtual load position is displayed on a screen. Three different load orders will be evaluated in separate trials, each lasting 200 seconds.

In the second part of the experiment the setup will be identical, except that the intensity of FES will now be controlled by one of two artificial controllers. To obtain a black-box model of the neuromuscular system, the ankle moment generated in response to randomly varying stimulation patterns will be recorded and used to obtain a model of your calf muscle response which is then used in the model based controller design. This is followed by evaluation of the each of the controllers with the three different loads, with each trial lasting 200 seconds.

7. Possible Risks:

All equipment conforms to the relevant regulations concerning biomedical devices, ensuring in particular that subjects will be safely isolated from mains electricity supply at all times.

Electrical stimulation via surface electrodes is widely used, is not known to be harmful, or to present risk of injury, provided that the appropriate safety guidelines are followed. You will feel some degree of discomfort from the sensation of the electrical stimulation applied. The stimulation intensity will be chosen in such a way that this discomfort is kept as small as possible. Close supervision of the subjects is ensured at all times by the researchers. Subjects will be free to withdraw from the study, at any time; they feel uncomfortable with the test procedures.

8. What if something goes wrong?

There is no further identifiable risk involved in your participation in the study. If taking part in this research project harms you, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for a legal action but you may have to pay for it.

9. Publication of Results:

Results of the study will be submitted for publication, but your identity will not be revealed. Photographs of experiments may be taken, but only with your consent. If you agree to photos being taken, you do so on the understanding that they may appear in publications or on websites describing research results.

10. Who has reviewed this study?

This study has been reviewed and approved by the Ethics Committee of the College of Science and Engineering, University of Glasgow.

11. Contact for Further Information:

If you would like further information, or if you would like to discuss any aspect of the study, please do not hesitate to contact one of the investigator listed below:

[redacted]
Centre for Rehabilitation Engineering
School of Engineering
University of Glasgow
Glasgow G12 8QQ
[redacted]

Dr. Henrik Gollee
Centre for Rehabilitation Engineering
School of Engineering
University of Glasgow
Glasgow G12 8QQ
Tel: 0141 330 4406
Email: henrik.gollee@glasgow.ac.uk

Thank you very much for considering participation in this study.

Subjects will be given a copy of the Information Sheet and a signed Consent Form to keep.

Consent Form

Title of Project: Evaluation of feedback control methods using electrical stimulation of muscles.

Name of Researcher(s): [redacted], **Dr. Henrik Gollee**

Please initial boxes

I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions ☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason or prior notice, and with no consequences ☐

I agree to have photographs of me taken during the experiment and that these may be used in publications or on websites describing research results ☐

I AGREE TO TAKE PART IN THE ABOVE STUDY.

Name of Volunteer: _____

Signature: _____ Date: _____

Name of person taking consent: _____

Signature: _____ Date: _____

Name of Researcher: _____

Signature: _____ Date: _____

Witness: _____ Date: _____

One copy for Volunteer. One copy for Researcher.

REPORT ON ETHICS PROPOSAL
REF# CSE00982 (Version 1)
TITLE: Placing Words in Space
SUBMITTED BY: [redacted], PhD Candidate
FROM THE: Psychology
REVIEWERS: Aleksandra Vuckovic, Simon Garrod

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

Pilot study. Will be used to identify the best stimuli set for future experiment.

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: This really requires more explanation, whcih stimuli, in whcih context, how long?

Ł COMMENT FROM SIMON GARROD: Specify the stimuli etc.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

ESRC.

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: Grant number?

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Two questionnaires to be completed online. 30+ participants.

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: What is the upper limit of 30+

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

No particular affects expected.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

None. All data will be held securely and processed in line with the Data Protection Act (1998). If payment is offered the participant's right to withdraw will not be affected: they will receive payment at a rate which reflects their progress or time spent on the task prior to withdrawal.

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: Please quanify payment

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Native English speakers aged 16+, the majority of whom will likely be University/higher education students. Will be unable to screen out individuals with mental disabilities or handicap, but will not be targeting these groups.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

Preferably not. (Dependent upon participation levels, we may need to instate a payment scheme at a later date).

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: This contradicts question 5

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

The questionnaires will be advertised online via Facebook, mass email (with appropriate permissions), and on a psycholinguistics group web page. Participants will first read an information page and, if they choose to participate, will provide consent via an online consent form.

Ł COMMENT FROM ALEKSANDRA VUCKOVIC: Which mass email?

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The proposal is in accordance with the BPS Code of Conduct and the ESRC Framework of Research Ethics.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

If a participant does not wish to provide their name, they will have the option to complete the questionnaire under a code name of their choosing. All data will be transmitted securely to a file on the web server, which can only be accessed by the researcher or his supervisor(s). After a short time, this file will then be removed from the server, encrypted and stored on a further encrypted external device. After 2 weeks following the date of a participant's submission, their personal identifiers will be removed from their respective datasets. All data will be treated in accordance with the Data Protection Act (1988).

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

Monday 30/01/2012

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Cyberspace.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

Each participant will be thanked for their time and given the opportunity to contact the experimenter with any and all queries. They will be given the opportunity to indicate whether or not they would like to be notified in the future regarding the general outcome of the experiment.

REPORT ON ETHICS PROPOSAL
REF# CSE00982 (Version 2)
TITLE: Placing Words in Space
SUBMITTED BY: [redacted], PhD Candidate
FROM THE: Psychology
REVIEWERS: Alessandro Vinciarelli, Stephen Brewster, Simon D. Rogers

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

Pilot study to identify the best stimuli set for future eye movement experiment. (Further details of stimuli etc provided in Q3.).

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

ESRC (43828)

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Two questionnaires to be completed online by each participant, taking approximately 35 minutes to complete. Both questionnaires are interested in words which may imply a vertical movement through or position in space. The participant's task is to rate each word on an 11pt Likert scale with respect to how strongly the word implies an upward or downward position/movement. For example, if the participant feels that the word 'erecting' conveys an upward movement/position, he/she should rate the word between values '+1' and '+5'. Alternatively, if the participant feels that this word conveys a downward movement/position, he/she should rate the word between values '-5' and '-1'. If the participant feels that the word does not particularly convey either an upwards or downwards movement/position, he/she should rate the word '0'. If they are a little unsure of a word's meaning but have a vague idea of the direction implied by the word, they should rate the word as normal and tick the checkbox marked '[?]'. If they have no idea what a word means, they should rate it '0' and tick the [?] checkbox.

One questionnaire utilises this process with verbs, the other with nouns and adjectives. 50 participants are sought.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

No particular affects expected.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

None. All data will be held securely and processed in line with the Data Protection Act (1998). The voucher incentive being offered does not affect the participant's right to withdraw at any time: they will be entered into
the prize draw regardless of whether they choose to withdraw consent during or after task completion.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Native English speakers aged 16+, the majority of whom will likely be University/higher education students. Will be unable to screen out individuals with mental disabilities or handicap, but will not be targeting these groups.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

Participants will be given the opportunity to be entered into a prize draw to win one of 5 high street shopping vouchers, each to the value of ´£10.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

The questionnaires will be advertised online via Facebook, mass email to personal contacts, and on a psycholinguistics group web page. Participants will first read an information page and, if they choose to participate, will provide consent via an online consent form.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The proposal is in accordance with the BPS Code of Conduct and the ESRC Framework of Research Ethics.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

If a participant does not wish to provide their name, they will have the option to complete the questionnaire under a code name of their choosing. All data will be transmitted securely to a file on the web server, which can only be accessed by the researcher or his supervisor(s). After a short time, this file will then be removed from the server, encrypted and stored on a further encrypted external device. After 2 weeks following the date of a participant's submission, their personal identifiers will be removed from their respective datasets. All data will be treated in accordance with the Data Protection Act (1988).

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

Monday 30/01/2012

Ł COMMENT FROM SIMON D. ROGERS: Presumably this is flexible, as it is in the past.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Cyberspace.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

Each participant will be thanked for their time and given the opportunity to contact the experimenter with any and all queries. They will be given the opportunity to indicate whether or not they would like to be notified in the future regarding the general outcome of the experiment.

University of Glasgow
Department of Psychology

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Placing Words in Space

Invitation

You are invited to take part in a survey being conducted by [redacted] a PhD researcher at the University of Glasgow. The study, to which this survey is attached, is interested in how our eyes behave when we listen to words that convey a particular position (e.g., 'cloud') or movement in space (e.g., 'dive'). It is hoped that this research will inform our understanding of the role that language plays in helping us digest information about motion events. The survey is in the form of two questionnaires and, while each questionnaire will provide more specific task information, in essence all you are required to do is rate (via clicking buttons) each word with respect to whether you think it conveys more of an upward or downward position / movement in space.

What are the possible risks / benefits of taking part?

There are no known risks to you that would be incurred from taking part. Please be assured that the data collected here in no way reveals any intimate aspect of your character or mental aptitudes. While your participation in this survey is voluntary, by providing a valid email address you are given the opportunity to be entered into a prize draw to win one of 5 high-street shopping vouchers to the value of £10.

Will my information be kept confidential, and what if I change my mind?

If you consent to participate but, for whatever reason, you subsequently wish to withdraw your consent (whether during completion of the survey or afterwards), then you are free to do so without giving a reason and your email address will still be entered into the prize draw. However, if you wish to withdraw your participation at a later date, you must do so within two weeks after the date that you submitted your response. Two weeks after submission, your personal identifiers (e.g. name / code) will be removed from the dataset and therefore we will not be able to identify your data in order to withdraw it. Should you not wish to provide your full name, please enter a randomly-generated code (ideally comprised of letters and numbers) into the 'name' field, and use this code name for both questionnaires. This will maintain your anonymity whilst allowing us to gather all data belonging to you, however, you will be required to

produce this code should you wish to withdraw from the survey so please make a note of it. Your email address will not be associated with your data and will only be used to contact you if your name is picked during the prize draw or, if desired, to inform you of the general outcome of the study. Should you wish, you may provide a dummy email address instead (e.g. dummy@dummy.com), but in doing so you will forgo entry to the prize draw as we will have no means by which to contact you should you win.

All information collected from you or about you during the course of the research will be kept strictly confidential and treated in accordance with the Data Protection Act (1998). Your data will be transmitted and stored securely, using encryption or key protection where necessary, and will be accessed only by the researcher and/or his supervisors (Dr Christoph Scheepers, University of Glasgow; [redacted], University of Dundee).

What will happen to the results of the research study?

The results of the study may be published as part of a corpora of work, and will hopefully be disseminated as a publication in a psychology journal at a later time. Should you wish to be sent a summary of the study's findings, you are invited to send appropriate contact details (such as an email or home address) separately to the email address below, or tick the corresponding checkbox on each consent form. Please note that you will not be personally identified in any report or subsequent publication in any way.

Who has reviewed the study?

The University Research Ethics Committee of the University of Glasgow has reviewed and approved this research study. If you have questions or concerns, please contact the principal investigator at:
[redacted]

University of Glasgow
Department of Psychology

Placing Words in Space

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

DECLARATION OF CONSENT
Title of Survey: Placing Words in Space
Name of Researcher: [redacted]

In selecting 'Agree', I:

1. confirm that I have read and understood the participant information pertaining to the present survey (available here), and that I have had the opportunity to direct questions to the researcher.

2. agree to take part in the following survey, that my participation is voluntary, and that I am free to withdraw my participation until one week after I submit my response, providing that I supply the researcher with the appropriate identifier (name / code).

3. understand that my data and personal information will be securely stored by the principal researcher, and that raw data including identifiers will only be accessed by the researcher and/or the named supervisor.

Name/Code:
Email:
☐ I wish to be sent a summary of the study's findings at the above address

○ Agree
○ Decline

Next

REPORT ON ETHICS PROPOSAL
REF# CSE00995 (Version 1)
TITLE: An MEG investigation of word frequency
SUBMITTED BY: [redacted], PG
FROM THE: Psychology
REVIEWERS: Aleksandra Vuckovic, Hester Parr, Simon D. Rogers

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

This is a standard MEG study, looking at the processing of high frequency and low frequency words by native English readers. Frequency is one of the strongest predictors of processing speed on lexical decision tasks to visually presented words. MEG appears to be an ideal brain imaging technique to study language at a higher temporal and spatial level. However, previous MEG studies assessing frequency effects have resulted in different findings with regards to modulation of MEG components, and only one study finding an early effect of manipulating word frequency and word length. Previous work has largely used small stimuli sets which are often presented repeatedly. This study aims to resolve such findings with a large set of words, controlled for frequency, and with words presented singularly.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

Psychology Dept - ESRC (1+3) Masters student

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

During the MEG measurement, the participant is sitting in a magnetically shielded room with the head supported against the helmet shaped bottom of the magnetometer, holding 248 sensors. Before the measurements, four small coils are taped on the skin and a digitiser is used to measure the location of these coils with respect to specific points on the head. Small currents will be passed through the coils once the participant is in the instrument; this will allow us to position each coil with respect to the sensors and to align the MEG and MRI coordinate systems. These currents are not felt by the participants. The participant will be asked to sit still during the entire measurement, since movements interfere with getting accurate data.

First, the participant will be informed about the study. High and low frequency words (300, 150 each) will be presented in a fixed random order with non words (300 in total), and participants will be asked to make a word/non word response using a button press. Overall, 600 stimuli will be presented during the MEG experiment. Individual recordings will not last longer than 20 minutes. As several sequential recordings are required, time for breaks will be allowed. Participants will be encouraged to take breaks throughout and to respond to stimuli as quickly as possible. We will inform all participants that they may discontinue participating in the experiment at any time. Participants are likely to be undergraduate and postgraduate students from the University of Glasgow, and 15 participants will be required for the experiment overall. Participants with an MRI scan will be sought and those without one will be required to have an approximately 10 minute MRI scan at the end of the MEG experiment.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The measurement itself is completely non-invasive. Some participants may feel uncomfortable to sit still during the recording. This may lead to hardening of back or neck muscles. No other adverse effects are known from MEG experiments

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

No ethical issues are involved in a typical MEG experiment.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Participants of MEG studies will be healthy adults

Ł COMMENT FROM HESTER PARR: Put two contacts points on the information sheet in case the researcher is not available.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

A standard payment of ´£6 per hour will be made to subjects.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

Participants will be recruited by adverts detailing the purpose and duration of the experiment. Written informed consent will be obtained from participants prior to the study.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

MEG experiments will be in accord with the BPS code of conduct.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

Participants anonymity will be assured by only referring to subject numbers during analysis. Records of personal details will only be kept if subjects agree (for example to contact them for other studies).

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

MEG recordings will start after ethical approval has been obtained - ideally after March, 1st, 2012.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

All the recordings will be carried out in the Laboratory for Magnetoencephalography in the CCNi.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

After the experiment participants will be briefed about the purpose of the research and will be given contact details of the investigator (for further questions and concerns). If they are interested, they will be given a more
detailed description of the experiment and its aims

Study Information Sheet - MEG

Title of Project: An MEG investigation of reading

Investigator: [redacted]

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others, if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.
Thank you for reading this.

What is the purpose of this study?
We would like to record your brain activity using magnetoencephalography (MEG) while presenting individual words for you to read. Some of the presentations will be non words, and for each presentation you will be asked to respond as to whether the item presented is a word or a non word with a button press.

Who can take part?
MEG is a non-invasive measurement method of brain activity. Therefore, everybody can participate in general. However, the MEG is so sensitive that it would be affected by metal implants, shell splinters or pacemakers, so we will have to exclude you if you fall into any of these categories. Please note that this is to ensure the quality of the data and not because you would suffer any harm from the MEG measurement.
Individuals with normal or corrected to normal vision can take part. Participants must be native English speakers.

What will happen to me if I take part?
During the MEG measurement, you will be sitting in a magnetically shielded room with your head supported against the helmet shaped bottom of the magnetometer, holding 248 sensors. Before the measurements, four small coils are taped on your skin and a digitizer is used to measure the location of these coils with respect to specific points on your head. Small currents will be passed through the coils once you are in the instrument; this will allow us to position each coil with respect to the sensors and to align the MEG and MRI coordinate systems. These currents are entirely outside your body and you will not feel them. If you have magnetic material in your body (for example, in your dental work), then we may try to de-magnetise it using an instrument that we will hold above your skin.

The MEG sensors are connected to a computer that records your brain activity while you are performing different tasks and while you are resting. You will be asked to sit still during the entire measurement, since movements will interfere with getting accurate data.

You will be presented with words individually and will be asked to respond as quickly as possible via a button press as to whether the items presented are actual words or non words.

What is the device involved?
We can learn a great deal about how the brain works by measuring the electrical currents produced by the neurons while the brain performs different tasks. MEG is a completely non-invasive, non-hazardous imaging technique that allows us to measure the tiny magnetic fields produced by electrical activity in the brain via extremely sensitive devices. MEG offers us a window into the dynamics of neuronal activity, and thus of the associated cognitive processes, with a very accurate temporal resolution. In addition the high number of sensors allows us to reconstruct, afterwards, the source of the currents at a given time. Therefore MEG allows us to identify precisely which regions are involved in a cognitive process and in which sequence.

What are the possible risks/side effects of taking part?
There are no known or foreseeable risks or side effects associated with conventional MEG recordings. However, to avoid you feeling uncomfortable by the need to sit still throughout the recordings, we will have enough breaks in which you can move around.

We all ask you to leave all magnetic/metallic materials outside the magnetically shielded room, as they may interfere with the measurement (watch, keys, coins, dental plates, hearing aids). Note that this would affect our measurements – it does not bear any risk to yourself.

What are the possible benefits of taking part?
MEG experiments are tests without any diagnostic value nor health benefit. Should an abnormality exist in your brain (although this is highly unlikely), this would not be seen in the data acquired in the context of the experiment.

We will reimburse you for your time and travel, and you will have the pleasure of knowing that you have made a contribution to our understanding of the relationship between brain and behaviour.

What happens at the end of the study?
The results of this study may be published in a journal or used for teaching purposes. The results may also be presented at scientific meetings or in talks at academic institutions. Results will always be presented in such a way that data from individual volunteers cannot be identified.

Confidentiality - who will have access to the data?
The data will be stored on a secure network and only members of the Centre for Cognitive Neuroimaging (CCNI) of the Psychology Department at University of Glasgow, will have access to the data. It is possible that the data may be used by researchers working with CCNi, for other similar ethically approved research protocols, where the same standards of confidentiality will apply.

In addition, if photographs, audiotapes or videotapes were taken during the study that could identify you, then you must give special written permission for their use. In that case, you will be given the opportunity to view or listen, as applicable, to the photographs, audiotapes or videotapes before you give your permission for their use, if you so request.

Can I ask questions about the research project?
You may ask more questions about the study at any time - before, during and after the study. The investigator(s) will provide their telephone number, so that they are available to answer your questions or concerns about the study.

Can I withdraw from the study?
Your participation to this research project is voluntary, and you may withdraw from the research at any time and for any reason, without explaining why.

Can the investigators interrupt the study?
The research may be interrupted by the investigators at any time, and for several possible reasons , such as new selection criteria.

Will I receive a financial compensation?
You will receive a compensation of £6 per hour for your participation to this study.

This research study has been approved by the Ethics Committee of the Faculty of Information and Mathematical Sciences at University of Glasgow (FIMS ######)

Contact details

Name:	Professor Joachim Gross
Address:	Centre for Cognitive Neuroimaging & Department of Psychology, 58 Hillhead Street, Glasgow G12 8QB.
Telephone:	0141 330 3947
Email:	j.gross@psy.gla.ac.uk

STUDY INFORMED CONSENT – MEG

(This form must be completed prior to any MEG experiment)

Study title:

☐ I confirm that I have read and understood the Study Information Sheet provided to me for the above study and have had the opportunity to ask questions.

☐ The study has been explained to me and I understand the explanation given and what my participation will involve.

☐ I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected, while being entitled to my per/hour payment.

☐ I understand that the study is not a diagnostic test and would have no potential for detecting an abnormality in my brain, should an abnormality exist.

☐ I understand that the research data may be accessed by researchers working at or in collaboration with the CCNi in similar ethically approved studies, but that at all times my personal data will be kept confidential in accordance with data protection guidelines.

I have initialled the above boxes myself and I freely agree to take part in the study.

_____

SIGNATURE OF VOLUNTEER

Name: _____ Date: _____

_____

SIGNATURE OF WITNESS

Name: _____ Date: _____

Subject ID _____

Contact details

Name: Klaus Kessler

Address: Centre for Cognitive Neuroimaging
Institute of Neuroscience and Psychology
University of Glasgow
58 Hillhead Street, Glasgow G12 8QB
Tel: +44 (0)141-330 5089,

Telephone: 0141 330 4774

Email: k.kessler@psy.gla.ac.uk

REPORT ON ETHICS PROPOSAL
REF# CSE01005 (Version 1)
TITLE: Set in Stone: Building a new geography of the dry-stone wall
SUBMITTED BY: [redacted], PhD Student
FROM THE: School of Geographical and Earth Sciences
REVIEWERS: Christoph Scheepers, Paddy O'Donnell, Simon D. Rogers

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The title of the research is, ?Set in Stone: Building a new geography of the dry-stone wall.? Its aims are as follows:
i. To understand the cultural heritage of dry-stone walls
ii. To understand the public value of dry-stone walls
iii. To understand the role of voluntary organisations in ensuring sustainability of the dry-stone walling tradition

Ł COMMENT FROM SIMON D. ROGERS: Minor comment: aim (ii) seems to be very vaguely defined?

Ł COMMENT FROM CHRISTOPH SCHEEPERS: Since photographs are taken and might appear in the report and potential published work, perhaps offer the participant to conceal their identity on these photographs if requested.

Ł COMMENT FROM PADDY O'DONNELL: Agree but I also agree with the photograph point

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

The research is funded by the Economic and Social Research Council (ESRC).

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

The research will involve a phase of participatory practice. This is a methodological approach which seeks to develop a more open and fluid relationship between participant and researcher and acquire knowledge through the practice of an activity. To this end I will work alongside participants as a conservation volunteer with the British Trust for Conservation Volunteers (BTCV) (http://www.btcv.org) on one of their projects supported by the Heritage Lottery Fund. Sites will be located around the Aberdeenshire area. The programme is designed to train community groups the skills of dry-stone walling. It is anticipated there will be two or three groups involved in this programme throughout 2012.

BTCV has outlined a project plan with activities being run by their staff. I have permission and support from BTCV to be present at each of these sessions. After groups have been identified, they will take part in a taster session which will introduce participants to the historical and wildlife value of dry-stone walls. Groups will then take part in a two-day introductory walling course with professional walling instructors. There will then be four practice sessions for each group followed be another two-day progressive walling

course. The project will then be rounded off with four more practice sessions for each group.

The BTCV have identified one of these groups to be from the Mill of Benholm charity in Aberdeenshire (http://www.millofbenholm.org.uk). Although this group will comprise of participants with minor learning and mental health difficulties, all maintain the capacity to fully comprehend and provide permission for the research. They will be provided with a standard information sheet in plain English and required to sign a consent form. The Programmes Manager at BTCV has provided a letter of support regarding my methodological approach and the capacity of participants. BTCV will develop a training centre at the Mill of Benholm where the participants and their supervisors will be trained in dry-stone walling techniques. I will be involved in participatory research at this stage. During the research, participants may be involved in informal conversation whilst working and if permitted by the individual, may involve tape recording or photography. The participants will be fully informed that anything they say to me could be used in research and that contributions will be anonymised. Questioning and subsequent data recorded will relate only to dry-stone walling and conservation work and will not ask intrusive or sensitive questions of any kind. A sample of the questions to be asked is attached.

Other participants are yet to be determined but may be community groups and conservation volunteers interested in dry stone walling.

Interviews will also be conducted with BTCV employees involved in dry-stone walling or other conservation work, professional walling instructors and other dry-stone wall craftspeople or artists. A sample interview sheet is attached.

The Programmes Manager at BTCV has provided a letter (attached) which supports my proposed research methods and makes clear that they consider them to be unproblematic in ethical terms.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

Research will be practice based and I will therefore be engaged as a volunteer, working alongside the participants. Questions and conversation will relate to dry-stone walling and conservation work and will therefore cause no emotional distress to the participants.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

BTCV work with a range of people who are occasionally depicted as vulnerable to poverty and unemployment as well as to a range of minor mental health and learning disabilities. This in no way affects their capacity to ?volunteer? for dry-stone walling activities and also agreeing to participate in my research project.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

There will be no children involved in the research. Participants may have mental health issues like stress or depression or minor learning disabilities but they will not lack capacity. BTCV have supplied a letter to

confirm this. An information sheet, outlining the aims of the research will be provided to all participants and subsequent permission sought via a consent form. If literacy is an issue, then the BTCV leader will verbally translate the information sheet not in the direct presence of the researcher.

Ł COMMENT FROM PADDY O'DONNELL: I am reassured by the offer of a verbal version

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

No payment will be made to the participants.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

There will be no advertising for participants as those of interest will be identified by BTCV. Participants will be provided with an information sheet (including my contact details) and consent form.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

The research is in accordance with the ESRC research ethic framework.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

Unless requesting a summary of the findings, there will be no need for participants to provide their address or contact details. If any contact details are provided, these will be destroyed once all requests have been fulfilled. All documents relating to the research will be stored in a locked desk and/or on a secure computer. In the case of the research being submitted to journals, data will remain secure for up to ten years, after which time it will be destroyed. When referred to in the report, all participants will be provided with a false name.

Ł COMMENT FROM CHRISTOPH SCHEEPERS: Also see my comment to point 1.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

Research is anticipated to begin in spring 2012.

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Research will take place in and around the Aberdeenshire area.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

At the end of the project, participants will be thanked and asked if they would like to receive a summary of my findings. If yes, they will be asked for their email address or other method of contact for receiving a summary. These contact details will be destroyed once all requests have been fulfilled. User friendly

reports on the volunteer experience of dry stone walling will be produced for BTCV.

Research Project:
Investigating dry-stone walling culture

Information Sheet for Participants

What the project is about

My name is [redacted] and I am a PhD student from the University of Glasgow. I study Human Geography and will be conducting research on dry-stone walls. My project involves learning about the practice of building a dry-stone wall and the experiences of conservation volunteers that are taught the dry-stone walling craft. As you are learning how to building a dry-stone wall, I would like to invite you to take part in the project.

What participating in the project involves

To help me understand the practice of dry-stone walling, I will gather information in two ways:

The first is called Participant Observation. It means that I will work alongside you as a conservation volunteer and note down observations as we work. These might involve descriptions of the activities we do, how people discuss dry-stone wall techniques and how people work as a team to build the wall. If you give me permission, I may also take photographs of you and others building the wall.

The second way of gathering information is through informal, friendly interviews about your experiences and thoughts of dry-stone walling. The interviews would be like a semi-structured conservation with topics relating to what you find interesting about dry-stone walling, what skills you have learnt and what you think about conservation volunteering. If you give me permission, I may use a tape recorder to help me remember what you have said. The interview would take part during our dry-stone walling group meetings which would mean there would be no need to organise another time to talk to me.

What happens to the information I have gathered?

After speaking to you, I will write down the information you give me and use the most important points in my report. My observations and any photographs I take may also be used in my report. Your real name will never be used in the report.

Once the report is complete, it will be submitted to the University of Glasgow for examination. If the report passes, some of it may be published in an academic journal or be used by BTCV to help educate others.

What are your rights?

BTCV are aware of my project and have given me permission to ask if you want to participate. Participation is entirely up to you – you do not have to be involved if you do not want to be. You have the right to contact myself or my supervisors at the University of Glasgow for more information about the project. The contact details are at the end of this document. You also have the right to withdraw from the project at any time. If you are interviewed and later change your mind, you can withdraw your consent for me to use what you have said in my report.

There will be no need to provide any personal information such as your address or telephone number. The project has been approved by the Ethics Committee at the University of Glasgow. If during or after the research you have concerns about the way it was conducted and feel you have in any way been treated unfairly, you have the right contact the Chair of the Science and Engineering

Ethics Committee to discuss your concerns. The chair is Dr Marie-Hélène Grosbras and may be contacted by email on: m.grosbras@psy.gla.ac.uk

If you want to take part
If you want to participate in the project, please read and sign the accompanying consent form and return it to me personally or to my address below by the _____(insert date)_____.

If you have any questions about the project, please feel free to contact me on the details below.

Thank you for taking the time to read this information. Please keep this information sheet for your reference.

[redacted]
PhD Candidate
[redacted]
School of Geographical and Earth Sciences
East Quadrangle
University of Glasgow
University Avenue
Glasgow, G12 8QQ
[redacted]
[redacted]

Contact details of project supervisors

Dr Hayden Lorimer
School of Geographical and Earth Sciences
East Quadrangle
University of Glasgow
University Avenue
Glasgow, G12 8QQ
Telephone: 0141 3302509
Email: Hayden.Lorimer@glasgow.ac.uk

Dr Hester Parr
School of Geographical and Earth Sciences
East Quadrangle
University of Glasgow
University Avenue
Glasgow, G12 8QQ
Telephone: 0141 3305291
Email: Hester.Parr@glasgow.ac.uk

Research Project:
Investigating the dry-stone walling culture

Consent Form for Participants

If you would like to take part in the project, please fill out this consent form.

1. Have you read and understood the Information Sheet? Yes ❒ No ❒
2. Do you understand that participation is entirely voluntary? Yes ❒ No ❒
3. Do you agree to your conversations with the researcher ([redacted] to be tape recorded? Yes ❒ No ❒
4. Do you agree to allow the researcher ([redacted]) to take photographs of yourself and your dry-stone wall work? Yes ❒ No ❒
5. Do you agree to take part in this study? Yes ❒ No ❒

Participant's signature .....

Participant's name in BLOCK CAPITALS .....

Date .....

When completed, please return this form to [redacted] or post it to her at:

[redacted]
PhD Candidate
[redacted]
School of Geographical and Earth Sciences
East Quadrangle
University of Glasgow
University Avenue
Glasgow
G12 8QQ
[redacted]
[redacted]

REPORT ON ETHICS PROPOSAL
REF# CSE01001 (Version 1)
TITLE: Spear Phishing Experiment
SUBMITTED BY: [redacted] Student
FROM THE: Computing Science
REVIEWERS: Aleksandra Vuckovic, Joemon Jose, Lars Muckli

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The research is intended to determine the effectiveness of spear phishing. Spear phishing is an email spoofing attack that targets a specific person or organisation using information about them or relevant to them to gain their trust. The intention is to construct emails to target participants and send them out. The email will contain a link and those that click that link and attempt to login to the phish site will be considered to have fallen for the spoofing attack. The number of responses will be collected.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

N/A

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

The experiment will follow a between groups design involving three independent groups of participants ? possibly six if enough participants can be found. Each group will consist of a minimum of fifteen participants; however more participants may be required to establish any statistical significance in the results obtained.

Potential participants will be approached by email or in person giving them the opportunity to opt-into the study. A consent form will then be issued to willing participants to sign.

Each group will receive emails from one of three types of email address. A fake email address, a socially informed email address and a Glasgow University email address. The fake email address will be a randomly created Gmail/Yahoo/Hotmail address. The socially informed email address will be created to look like it belongs to a friend on a social network such as Facebook. The Glasgow University email address will be a dcs account created for the sole purpose of this experiment.

Stage 1
An email will be constructed for each participant based on information obtained from social networking sites such as Facebook. This email will contain a link and encourage the participants to open it. It will also contain a web bug which will send a signal to our server to indicate that the email was opened.

At which point the participants will have the choice to open the link in the email. Proceeding to click on the link will take them to a fake site made to look like facebook. If the participants click the login button an integer will be written to a text file on the server indicating the participant fell for the fake site. The

participant is then redirected to the real facebook website. At no point will the participants login details be recorded.

Stage 2
An email will be sent out to all participants detailing the experiment so far and ensuring them that no sensitive information was ascertained in the process. Additionally, the email will make them aware of the potential threat of spear phishing and provide a guide on features typical of phish.

Stage 3
A few weeks later, a follow up experiment will be conducted and another spear phish email will be sent out (repeating Stage 1). The aim is to determine if the participants have become more cautious since being made aware of the threat.

Stage 4
Participants will be given an online questionnaire to complete and then debriefed on the entire experiment.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

There are no known long term effects of this experiment. A possible side effect is the participants will be more cautious about future emails, which is a desirable effect.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

The ethical issue in my opinion is that the participants will have no knowledge of the experiment until after the first stage, as deception is paramount to the study.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

Participants will be friends and undergraduate students of the University of Glasgow.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

No payment will be made to any of the subjects.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

Participants will be asked to sign a consent form but due to the nature of the research, the participants will be given no insight into the investigation as deception is necessary. However they will be informed of the experiment so far after the first stage is complete.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

I believe this proposal to be in accord with the BPS code of conduct.

Ł COMMENT FROM LARS MUCKLI: Subjects should be debriefed after the experiment - and debriefing form should be provided

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

The information that will be collected will be kept securely and any identifying information such as names will be completely anonymised in any reports. When the experiment is done, any and all personal details will be destroyed.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

1st of March 2012 or as soon as ethics approval is granted

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Online

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

At the end of the experiment a final email will be sent out to all participants providing an extensive debrief, complete with an overview of the experiment, the data collected and a summary of the results obtained. The email will also contain contact details for the experimenter and project supervisor, inviting any participants to get in touch with any concerns or general feedback.

Ł COMMENT FROM LARS MUCKLI: OK fine - see above debriefing should be part of the ethical approval application

Information sheet: MSci Project

The aim of this project is to investigate a form of cyber-attack. The details of which will be kept from you until a later date due to the nature of the research.

The experiment will take little time to complete (approx. 5-10 minutes) and will include a questionnaire. It will require a computer with an Internet connection.

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be used with the data collected.

Your participation in this experiment will have no effect on your marks for any subject at this, or any other university or college. It will not place you or your data at risk and full details are available on request.

If you have any further questions regarding this experiment, please contact:

[redacted]

Alternatively,

Professor Chris Johnson
School of Computer Science
Lilybank Gardens
Christopher.Johnson@glasgow.ac.uk

This study adheres to the BPS ethical guidelines, and has been approved by the DCS ethics committee of The University of Glasgow.. Whilst you are free to discuss your participation in this study with the experimenter, if you would like to speak to someone not involved in the study, you may contact the chair of the DCS Ethics Committee: Prof Stephen Brewster <stephen@dcs.gla.ac.uk>.

Participant Consent From: MSci Project

The aim of this project is to investigate a form of cyber-attack. The details of which will be kept from you until a later date due to the nature of the research.

The experiment will take little time to complete (approx. 5-10 minutes) and will include a questionnaire. It will require a computer with an Internet connection.

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be used with the data collected.

Your participation in this experiment will have no effect on your marks for any subject at this, or any other university or college. It will not place you or your data at risk and full details are available on request.

If you have any further questions regarding this experiment, please contact:

[redacted]

Alternatively,

Professor Chris Johnson
School of Computer Science
Lilybank Gardens
Christopher.Johnson@glasgow.ac.uk

I have read this information sheet, and agree to voluntarily take part in this experiment:

Name..... Email.....

Signature..... Date.....

If you do **not** wish to receive summary of the general experimental outcomes please tick the box. ☐

This study adheres to the BPS ethical guidelines, and has been approved by the DCS ethics committee of The University of Glasgow. Whilst you are free to discuss your participation in this study with the experimenter, if you would like to speak to someone not involved in the study, you may contact the chair of the DCS Ethics Committee: Prof Stephen Brewster <stephen@dcs.gla.ac.uk>.

REPORT ON ETHICS PROPOSAL
REF# CSE00865 (Version 1)
TITLE: SQL patterns
SUBMITTED BY: [redacted] PhD student
FROM THE: IT
REVIEWERS: Monika Harvey, Simon D. Rogers, Vincent Macaulay

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The study investigates the effects of SQL patterns on problem solving, students performance and acquisition of conceptual knowledge in SQL course. In addition, the study examines learner interaction behavior patterns in solving SQL

Ł COMMENT FROM VINCENT MACAULAY: Replace references to FIMS ethics committee, with "Ethics Committee of the College of Science and Engineering" in information sheet and consent form

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

This research is funded through a full scholarship from [redacted] Ministry of Manpower, Muscat, Oman. All academic and financial issues are also supervised by the Cultural Attache of the Embassy of Sultanate of Oman in London, UK.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Experiment 1 tasks: SQL patterns verses conventional study, in this experiment one group are having access to the patterns and the other group will have access to other available material. To avoid both groups from getting advantage from the example in the available materials, then the questions in these tasks are different than the examples in the patterns or the book and lecture note â•šfar transfer problemâ•š. 60 IT students from SQL concepts and syntax course (ITDB3208) at Diploma level in third year semester1. both groups will be using a tool call SQLPB to perform the given task. Patterns group will have acess to the patterns from this tool while other group will have access to other material such as lecture note and book.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

participation in this experiment will have no effect on thier marks for any subject at this, or any other institute .

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

There are no ethical issues associated with this experiment proposal. There are no apparent risks or harm that will impact these candidates, and certainly since they are students, their participation will not affect their academic program or their grades for any specific course. They are also given a consent form

and information sheet which states that they are able to withdraw from the experiment whenever they want.

Ł COMMENT FROM VINCENT MACAULAY: Given the length of the experiment, some comment on subject fatigure would be appropriate. For example, how long are the individual sessions?

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

The candidates are all mature, educated and with no apparent disability or handicap. Their age is between 19-23 years old, and will be of both genders (male and female). There are no regulation that require taking permission from their teachers or parents to participate in this experiment.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

no payment

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

there are 60 students registered in SQL concepts and syntax course (ITDB3208). they will be randomly distributed into two groups.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data all information will be anoymised. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

15th of December

Ł COMMENT FROM MONIKA HARVEY: adapt to after approval has been given

Ł COMMENT FROM SIMON D. ROGERS: This is in the past!

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Higher College of Technology - in Muscat, Sultanate of Oman

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

A feedback email message will be sent to all participants, after the data has been analyzed.

REPORT ON ETHICS PROPOSAL
REF# CSE00865 (Version 2)
TITLE: SQL patterns
SUBMITTED BY: [redacted], PhD student
FROM THE: IT
REVIEWERS: Klaus Kessler, Monika Harvey, Simon D. Rogers, Vincent Macaulay

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The study investigates the effects of SQL patterns on problem solving, students performance and acquisition of conceptual knowledge in SQL course. In addition, the study examines learner interaction behavior patterns in solving SQL

Ł COMMENT FROM KLAUS KESSLER: You have to explain SQL patterns, here, but even more importnatly on the consent form and the info sheet

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

This research is funded through a full scholarship from [redacted] Ministry of Manpower, Muscat, Oman. All academic and financial issues are also supervised by the Cultural Attache of the Embassy of Sultanate of Oman in London, UK.

Ł COMMENT FROM MONIKA HARVEY: In that case will you not need ethicl approval from Oman

Ł COMMENT FROM VINCENT MACAULAY: Monika, I presume you don’t mean "not"? I wonder also about the need for approval in Oman.

Ł COMMENT FROM KLAUS KESSLER: Depends on where the study is carried out...

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Experiment 1 tasks: SQL patterns verses conventional study, in this experiment one group are having access to the patterns and the other group will have access to other available material. To avoid both groups from getting advantage from the example in the available materials, then the questions in these tasks are different than the examples in the patterns or the book and lecture note â•šfar transfer problemâ•š. 60 IT students from SQL concepts and syntax course (ITDB3208) at Diploma level in third year semester1. both groups will be using a tool call SQLPB to perform the given task. Patterns group will have acess to the patterns from this tool while other group will have access to other material such as lecture note and book.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

participation in this experiment will have no effect on thier marks for any subject at this, or any other institute .

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

There are no ethical issues associated with this experiment proposal. There are no apparent risks or harm that will impact these candidates, and certainly since they are students, their participation will not affect their academic program or their grades for any specific course. They are also given a consent form and information sheet which states that they are able to withdraw from the experiment whenever they want. the experiment will be divided into different session, some of session are 30 mints when they are doing their pre and post test and the tutorial is 2 hour the actual task might take two hours as maximum but some students can finish before. there are coffee breaks between the sessions and one lunch break.

Ł COMMENT FROM SIMON D. ROGERS: This does seem like a lot of effort for the participants. It's also not clear whether this will all be on the same day. Please make it clearer on the consent form / information sheet exactly how much time is being asked for.

Ł COMMENT FROM KLAUS KESSLER: See above comment. This will have to be made clear to the participants on their infor sheet and on teh consent form that they sign.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

The candidates are all mature, educated and with no apparent disability or handicap. Their age is between 19-23 years old, and will be of both genders (male and female). There are no regulation that require taking permission from their teachers or parents to participate in this experiment.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

no payment

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

there are 60 students registered in SQL concepts and syntax course (ITDB3208). they will be randomly distributed into two groups.

Ł COMMENT FROM KLAUS KESSLER: This sounds like they do not have choice! It will have to be made crtistall-clear that their participation in teh experiment is voluntary and does not have any effct on their course

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

Ł COMMENT FROM KLAUS KESSLER: Well maybe after some issues are resolved

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data all information will be anoymised. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

25th of January

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Higher College of Technology - in Muscat, Sultanate of Oman

Ł COMMENT FROM MONIKA HARVEY: See above do you not need ethical approval from Oman?

Ł COMMENT FROM VINCENT MACAULAY: DItto

Ł COMMENT FROM KLAUS KESSLER: You will need approval from the Institution where the resaerch is carried out.

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

A feedback email message will be sent to all participants, after the data has been analyzed.

REPORT ON ETHICS PROPOSAL
REF# CSE00865 (Version 3)
TITLE: SQL patterns
SUBMITTED BY: [redacted], PhD student
FROM THE: IT
REVIEWERS: Monika Harvey, Simon D. Rogers, Vincent Macaulay

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The study investigates the effects of SQL patterns on problem solving, students performance and acquisition of conceptual knowledge in SQL course. In addition, the study examines learner interaction behavior patterns in solving SQL.SQL patterns are just like any other patterns. In the same way that anyone can apply standard code design patterns in programming languages, he/she can also apply design patterns to SQL

Ł COMMENT FROM SIMON D. ROGERS: Please state how long you think this experiment will take on the information sheet.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

This research is funded through a full scholarship from [redacted] Ministry of Manpower, Muscat, Oman. All academic and financial issues are also supervised by the Cultural Attache of the Embassy of Sultanate of Oman in London, UK.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Experiment 1 tasks: SQL patterns verses conventional study, in this experiment one group are having access to the patterns and the other group will have access to other available material. To avoid both groups from getting advantage from the example in the available materials, then the questions in these tasks are different than the examples in the patterns or the book and lecture note â•šfar transfer problemâ•š. 60 IT students from SQL concepts and syntax course (ITDB3208) at Diploma level in third year semester1. both groups will be using a tool call SQLPB to perform the given task. Patterns group will have acess to the patterns from this tool while other group will have access to other material such as lecture note and book.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

participation in this experiment will have no effect on thier marks for any subject at this, or any other institute .

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

There are no ethical issues associated with this experiment proposal. There are no apparent risks or harm that will impact these candidates, and certainly since they are students, their participation will not affect their academic program or their grades for any specific course. They are also given a consent form and information sheet which states that they are able to withdraw from the experiment whenever they want. for more details see the programe-attached

Ł COMMENT FROM VINCENT MACAULAY: Fatigue is an ethical issue. You should explain how the attached programme is designed to mitigate against that.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

The candidates are all mature, educated and with no apparent disability or handicap. Their age is between 19-23 years old, and will be of both genders (male and female). There are no regulation that require taking permission from their teachers or parents to participate in this experiment.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

no payment

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

any students registered in SQL concepts and syntax course (ITDB3208) or have done the course. they will be randomly distributed into two groups. participation is voluntary

Ł COMMENT FROM VINCENT MACAULAY: Remove references to FIMS from the documentation

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data all information will be anoymised. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

9th Feb

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Higher College of Technology - in Muscat, Sultanate of Oman-approval is attached

Ł COMMENT FROM VINCENT MACAULAY: It is still not clear to me that specifically ethically approval has been provided in Oman.

Ł COMMENT FROM MONIKA HARVEY: Agree with Vincent’s comment on this

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

A feedback email message will be sent to all participants, after the data has been analyzed.

REPORT ON ETHICS PROPOSAL
REF# CSE00865 (Version 4)
TITLE: SQL patterns
SUBMITTED BY: [redacted], PhD student
FROM THE: IT
REVIEWERS: Marie-Helene Grosbras

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

The study investigates the effects of SQL patterns on problem solving, students performance and acquisition of conceptual knowledge in SQL course. In addition, the study examines learner interaction behavior patterns in solving SQL.SQL patterns are just like any other patterns. In the same way that anyone can apply standard code design patterns in programming languages, he/she can also apply design patterns to SQL

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED).

This research is funded through a full scholarship from [redacted] Ministry of Manpower, Muscat, Oman. All academic and financial issues are also supervised by the Cultural Attache of the Embassy of Sultanate of Oman in London, UK.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) SEE BPS ´§2 & ´§8

Experiment 1 tasks: SQL patterns verses conventional study, in this experiment one group are having access to the patterns and the other group will have access to other available material. To avoid both groups from getting advantage from the example in the available materials, then the questions in these tasks are different than the examples in the patterns or the book and lecture note â•šfar transfer problemâ•š. 60 IT students from SQL concepts and syntax course (ITDB3208) at Diploma level in third year semester1. both groups will be using a tool call SQLPB to perform the given task. Patterns group will have acess to the patterns from this tool while other group will have access to other material such as lecture note and book.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

participation in this experiment will have no effect on thier marks for any subject at this, or any other institute .

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (SEE BPS ALL SECTIONS)

There are no ethical issues associated with this experiment proposal. There are no apparent risks or harm that will impact these candidates, and certainly since they are students, their participation will not affect their academic program or their grades for any specific course. They are also given a consent form and information sheet which states that they are able to withdraw from the experiment whenever they

want. for more details see the programe-attached.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (SEE BPS ´§3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC... GIVE A BRIEF DESCRIPTION HERE AND FILL IN THE CHILDREN RESEARCH ETHICAL PLAN. THE FORM MUST BE UPLOADED TOGETHER WITH THE CONSENT AND INFORMATION FORMS.

The candidates are all mature, educated and with no apparent disability or handicap. Their age is between 19-23 years old, and will be of both genders (male and female). There are no regulation that require taking permission from their teachers or parents to participate in this experiment.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

no payment

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (SEE BPS ´§3)

any students registered in SQL concepts and syntax course (ITDB3208) or have done the course. they will be randomly distributed into two groups. participation is voluntary

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT OR THE ESRC FRAMEWORK OF RESEARCH ETHICS

Yes.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED
(SEE BPS ´§7)

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data all information will be anoymised. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

11. DATE ON WHICH PROJECT IS EXPECTED TO BEGIN AND END

18 march

12. LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT

Higher College of Technology - in Muscat, Sultanate of Oman-approval is attached

13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER - OR SUPERVISOR - FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (SEE BPS ´§5 & ´§10)

A feedback email message will be sent to all participants, after the data has been analyzed.

Information Sheet

The effect of SQL PATTERNS

This experiment is part of a PhD research. The aim of this experiment is to investigate the effect of SQL PATTERNS on learner's knowledge and query writing performance. SQL patterns are documents that describe SQL concept in a patterns form. The experiment will take about four hours distributed over several slots to complete[i]. At the beginning of the experiment, you will need to complete a pre test task, then a short tutorial about SQL concepts will be presented, and two kinds of the tasks you will need to perform. The first one you need to show how to solve a set of SQL query on paper, the second task you will be using a SQLPB tool where you will need to write SQL queries to solve the given task. The tool consists of different screens such as ERD windows, SQL command and output window, patterns window (for patterns group only). Then you will post tested to evaluate your knowledge and understanding. At the end of the experiment, you will be asked to complete a questionnaire.

All your behavior, self-explanation, your answers (trials and errors) and the time taken to finish the task will be recorded. Please try and answer the questions as accurately as possible within the given time-out period. All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office. A feedback email message will be sent to all participants, after the data has been analyzed. Your participation in this experiment will have no effect on your marks for any subject at this, or any other university. Please note that it is the SQL patterns effect, not you, which are being evaluated. You may withdraw from the experiment at anytime without prejudice, and any data already recorded will be discarded.

If you have any further questions regarding this experiment, please contact:

[redacted] [1]

[1] *This study adheres to the BPS ethical guidelines, and has been approved by the FIMS ethics committee of The University of Glasgow (ref: FIMS0050). Whilst you are free to discuss your participation in this study with the researcher (contactable on [redacted] , if you would like to speak to someone not involved in the study, you may contact the chair of the FIMS Ethics Committee (http://ethics.ims.gla.ac.uk/).*

for more information please see the attached Experiment program [i]

This experiment is part of a PhD research. The aim of this experiment is to investigate the effect of SQL PATTERNS on learner's knowledge and query writing performance. SQL patterns are documents that describe SQL concept in a patterns form. The experiment will take about four hours distributed over several sessions to complete. At the start of the experiment, you will need to complete a pre test task, then a short tutorial about examined SQL concepts will be discussed , and two kinds of the tasks you will need to perform. The first one you need to show how to solve a set of SQL query, the second task you will be using an interface where you will need to write SQL queries to solve the given task. At the end of the experiment, you will be asked to complete a questionnaire.

All results will be held in strict confidence, ensuring the privacy of all participants. No personal participant information will be stored with the data all information will be anoymised. Online data will be stored in a password protected computer account; paper data will be kept in a single-occupant locked office.

A feedback email message will be sent to all participants, after the data has been analyzed.

Your participation in this experiment will have no effect on your marks for the subject at this, or any other university.

Please note that it is the SQL patterns, not you, that are being evaluated. You may withdraw from the experiment at anytime without prejudice, and any data already recorded will be discarded

If you have any further questions regarding this experiment, please contact:

[redacted]

[redacted]

[1]I have read this information sheet, and agree to voluntarily take part in this experiment:

Name: _____

Email:_____

Signature: _____

This study adheres to the BPS ethical guidelines, and has been approved by the FIMS ethics committee of The University of Glasgow (ref: FIMS0050). Whilst you are free to discuss your participation in this study with the researcher (contactable on [redacted] , if you would like to speak to someone not involved in the study, you may contact the chair of the FIMS Ethics Committee (http://ethics.ims.gla.ac.uk/).