

Are you interested in taking part in the research project ”Measuring the quality of redirected walking experiences in virtual reality”?

This is an inquiry about participation in a research project where the main purpose is to measure various quality metrics of state-of-the-art redirection techniques in virtual reality. In this letter I will give you information about the purpose of the project and what your participation will involve.

Purpose of the project

Redirected walking is a field of research in virtual reality where we can make better use of the available physical space by doing small and unnoticeable manipulations to the user as they walk around in a virtual space.

The purpose of this project is to provide data on various quality metrics for state-of-the-art redirection techniques. These metrics include:

- The effect of art style on redirection methods.
- How users move around in the physical space while being redirected.
- How noticeable “distractors” are, which is a redirection technique that allows for higher redirection when the user is engaged with a task or activity.
- The effectiveness of the employed redirection techniques.
- How applicable redirected walking is to games in virtual reality. This is primarily measured through a playtesting session with participants.

This project is a master’s thesis at NTNU Gjøvik.

Who is responsible for the research project?

NTNU Gjøvik is the institution responsible for the project.

Why are you being asked to participate?

You are being asked to participate in this project experiment as you might be part of its target demographic (consisting of young adults or adults with interest in virtual reality). For this experiment, a sample of 20-40 participants is estimated to be used.

What does participation involve for you?

Taking part in this experiment will involve two things:

- Playing through a small virtual reality game in order to provide some data on the various quality metrics. This play session is expected to last approximately 10 minutes.
- Answering a short paper-based survey to provide demographical data and if wanted, some optional qualitative feedback.

The collected data in this experiment consists of:

- Recorded performance and quality metrics from the software side.
- Demographical data like age, gender, previous experience with virtual reality, whether you have taken part in any redirected walking experiments before and if you have needed to remove any optical corrections when participating in the experiment.
- Some qualitative feedback on the experience. Providing this data is optional.

Participation is voluntary

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. Furthermore, if you at any time start to feel cybersick, uncomfortable or nauseous, you are recommended to stop the experiment. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

The only one in connection to NTNU who will have access to this data is the student responsible for the project (Andreas Wang). The recorded quality metrics and demographical data will be anonymous and only linked through a generated ID number. The performance data will be stored on a publicly available GitHub repository as it cannot be tied to a person without access to the rest of the data. The demographical data will be stored separately in a secure locked box at campus. Similarly, the signature for consent will also be stored separately from the rest of the data in a secure locked box.

No participants will be recognisable in the published results of the master's thesis.

What will happen to your personal data at the end of the research project?

The project is scheduled to end on 01.06.2019. At this point, all the demographical data will be destroyed. The software recorded quality metrics will be archived for future researchers. Since all the demographical data will be destroyed, there is no way to tie these metrics back to any individuals.

Your rights

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with NTNU, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

- NTNU via supervisors: Simon McCallum(simon.mccallum@ntnu.no) or Christopher Frantz(christopher.frantz@ntnu.no).
- NTNU via student responsible for master's thesis: Andreas Wang(andrwan@stud.ntnu.no).
- Our Data Protection Officer: Thomas Helgesen(thomas.helgesen@ntnu.no).
- NSD – The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Yours sincerely,

Andreas Wang

Consent form

Consent can be given in writing (including electronically) or orally. NB! You must be able to document/demonstrate that you have given information and gained consent from project participants i.e. from the people whose personal data you will be processing (data subjects). As a rule, we recommend written information and written consent.

- For written consent on paper you can use this template*
- For written consent which is collected electronically, you must choose a procedure that will allow you to demonstrate that you have gained explicit consent (read more on our website)*
- If the context dictates that you should give oral information and gain oral consent (e.g. for research in oral cultures or with people who are illiterate) we recommend that you make a sound recording of the information and consent.*

If a parent/guardian will give consent on behalf of their child or someone without the capacity to consent, you must adjust this information accordingly. Remember that the name of the participant must be included.

Adjust the checkboxes in accordance with participation in your project. It is possible to use bullet points instead of checkboxes. However, if you intend to process special categories of personal data (sensitive personal data) and/or one of the last four points in the list below is applicable to your project, we recommend that you use checkboxes. This because of the requirement of explicit consent.

I have received and understood information about the project and have been given the opportunity to ask questions. I give consent:

☐ to participate in the experiment.

I give consent for my personal data to be processed until the end date of the project, approx.
01.06.2019

(Signed by participant, date)