INDIANA UNIVERSITY STUDY INFORMATION SHEET FOR

Luddy Hall VR Navigation User Study (IRB #1911941428)

You are invited to participate in a research study of navigation in virtual reality (VR). You were selected as a possible subject because you are 18+ years old. Please note that subjects with an epilepsy diagnosis are not eligible. Please read this form and ask any questions you may have before agreeing to be in the study.

The study is being conducted by Andreas Bueckle (abueckle@indiana.edu), Dr. Patrick Shih (patshih@indiana.edu), and Dr. Katy Borner (katy@indiana.edu) from the Luddy School of Informatics, Computing, and Engineering at Indiana University.

STUDY PURPOSE

The purpose of this study is to explore how users navigate through a three-dimensional model of Luddy Hall on IU campus. We want to know if there are differences in completion time, task accuracy, and user satisfaction between a group of subjects who repeat the same set of navigation tasks twice (control) and a group of subjects that does so with an interventional treatment in-between (experiment). Additionally, we aim to understand what kinds of data visualizations can help users improve their own navigational performance in VR. To that end, we are collecting data on timing and task accuracy while also asking questions about the usability of the navigation methods presented in this user study.

NUMBER OF PEOPLE TAKING PART IN THE STUDY

If you agree to participate, you will be one of ~68 subjects who will participate in this research.

PROCEDURES FOR THE STUDY

If you agree to be in the study, you will be handed a surgical mask upon arrival at the research site (if needed) and asked to wash your hands before the experiment. Further safety precautions may need to be implemented, pending policy changes from IU, the Luddy School of Informatics, Computing, and Engineering, or other entities.

You will come to our research site during a previously agreed upon timeslot. Then, you will complete a pre-questionnaire to gather basic demographic data as well as information about your current usage and comfort with data visualizations, 3D applications, and VR. Subsequently, you will be given a VR headset and controllers. You will then receive instructions on how to use your tools and be presented with a set of tasks. If we select you for the control cohort, you will perform these tasks twice with a brief break in-between. If you are part of the experiment cohort, after the first part, we will show you a selection of data visualizations you generated with your movements in VR, and ask you questions about them while recording your answers, and then you will repeat the tasks. Finally, you will be presented with a post-questionnaire where you can share ideas for improvement. The study will take approximately 30-60 minutes of your time. You will be recorded in audio and video for the remainder of the experiment, starting the moment you enter the VR experiment, and we will record your actions in the physical world and in the virtual space with video and audio.

PAYMENT

Upon completion of your participation in the study, you will receive $20 in Amazon.com gift cards. In order to receive this payment, you need to complete the survey in its entirety.

RISKS AND BENEFITS OF TAKING PART IN THE STUDY

The risks of participating in this research are discomfort answering questions about unfamiliar visualizations. Further, some users can experience discomfort from using VR (such as motion sickness). You may also tell the investigator if you need to take a break.

CONFIDENTIALITY

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Your identity will be held in confidence in reports in which the study may be published and databases in which results may be stored.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the Indiana University Institutional Review Board or its designees, the study sponsor, and (as allowed by law) state or federal agencies, specifically the Office for Human Research Protections (OHRP), etc., who may need to access your research records.

FUTURE USE

Information collected from you for this study may be used for future research studies or shared with other researchers for future research. If this happens, information which could identify you will be removed before any information or specimens are shared. Since identifying information will be removed, we will not ask for your additional consent**.**

CONTACTS FOR QUESTIONS OR PROBLEMS

For questions about the study, please contact researcher Andreas Bueckle at abueckle@indiana.edu. For questions about your rights as a research participant or to discuss problems, complaints or concerns about a research study, or to obtain information, or to offer input, contact the IU Human Subjects Office at 812-856-4242 or irb@iu.edu.

VOLUNTARY NATURE OF THIS STUDY

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Your decision whether or not to participate in this study will not affect your current or future relations with the Luddy School of Informatics, Computing, and Engineering.