

Krishna Venkatasubramanian
Computer Science and Statistics
Comparing Layouts for Eye Gaze based PIN Entry
[If applicable, add investigator version date]

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STUDY TITLE

Comparing Layouts for Eye Gaze-based PIN Entry for People with Upper Extremity Impairment

PRINCIPAL INVESTIGATORS

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KEY INFORMATION

Important information to know about this research study:

- The purpose of the study is to learn about which PIN entry layouts work well for eye gaze entry.
- If you choose to participate, you will be asked to enter automatically generated four-digit PINs in three different PIN layouts on a research website. This will take approximately 30 minutes.
- Risks or discomforts from this research are expected to be minimal
- The study will have no direct benefits to you
- You will be paid \$10 as an e-gift card for your participation
- You will be provided a copy of this consent form.
- Taking part in this research project is voluntary. You don't have to participate, and you can stop it any time.

INVITATION

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please ask.

Why are you being asked to be in this research study?

You are being asked to be in this study because you are a person with an upper extremity impairment (UEI) who regularly uses an eye gaze tracker. A person with UEI is anyone without full use or range of motion of their arms, shoulders, or hands.

What is the reason for doing this research study?

PIN entry has historically been designed for touch-based interfaces. By looking specifically at ease of entry for eye gaze trackers we hope to build a better understanding of how to best build layouts for PIN entry for eye gaze trackers.

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What will be done during this research study?

During the study you will be asked to go to a research website. There you will be provided with a four-digit PIN that you will be given time to memorize. The PIN will also appear on the entry screen for reference. You will then be asked to enter the PIN on the website using one of three different PIN pad layouts being studied which will be selected at random. You will be asked to enter 8 PINs for that layout. Then one of the two remaining layouts will be randomly selected and you will be asked to enter 8, randomly generated PINs for that layout. You will then be asked to enter 8 PINs for the final layout

Afterward, you will be asked a few questions about your opinions on the PIN pad layouts as well as a few demographics questions such as age, gender, and disability.

What are the possible risks of being in this research study?

There are no known risks to you from being in this research study.

What are the possible benefits to you?

You are not expected to get any benefit from being in this study.

What are the possible benefits to other people?

We hope that this work will results in better understanding of how to design PIN entry methods for eye gaze tracker users.

What will being in this research study cost you?

There is no cost to you to be in this research study.

Will you be compensated for being in this research study?

You will receive a \$10 e-gift card for participating in this study

What should you do if you have a problem during this research study?

Your welfare is the major concern of every member of the research team. If you have a problem as a direct result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

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How will information about you be protected?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data.

The data will be stored electronically through a secure server and will only be seen by the research team during the study and for 5 years or longer after the study is complete.

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

What are your rights as a research subject?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator(s) listed at the beginning of this form.

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB) or Vice President for Research and Economic Development:

- IRB: (401) 874-4328 / researchintegrity@etal.uri.edu.
- Vice President for Research and Economic Development: at (401) 874-4576

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with the University of Rhode Island (list others as applicable).

You will not lose any benefits to which you are entitled.

Documentation of informed consent

You are voluntarily making a decision whether or not to be in this research study. Selecting yes below means that (1) you have read and understood this consent form, (2) you have had the consent form explained to you, (3) you have had your questions answered and (4) you have decided to be in the research study. You will be given a copy of this consent form to keep.

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- **Yes**
- **No**