

Reference Number: 25/1086

23/09/2025

Evaluating the Interpretability and Clarity of CVE Descriptions for CVSS Scoring

INFORMATION SHEET FOR PARTICIPANTS

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate, we thank you. If you decide not to take part, there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

This project aims to better understand how people read and interpret short written descriptions of software vulnerabilities — the kinds of problems that hackers can exploit to break into systems. These descriptions are publicly shared to help others stay safe, but they vary in how clear or useful they are.

We want to learn what makes these descriptions easier or harder to understand, especially for people with different levels of technical knowledge. By asking people to rate and comment on a few example descriptions, we hope to identify patterns in what makes a description good or bad.

The findings will be used to improve how future descriptions are written and may help develop tools to support this work.

This project is being undertaken as part of the requirements for Cody Airey's Master of Science in Computer Science at the University of Otago.

What Type of Participants are being sought?

We are seeking adult participants with a general interest or background in technology, cybersecurity, or software development. You do not need to be an expert — anyone with some familiarity with technical writing or digital systems is welcome to take part.

Participants should be comfortable reading English, as all survey materials will be presented in English.

Participants will be recruited through university mailing lists, online forums, professional networks, and social media. The survey does not require you to provide any identifying information. You may choose to provide an email address if you would like to receive a summary of the findings or retain the option to withdraw your data later. If no email is provided, your responses will remain fully anonymous.

The only exclusion criterion is age: participants must be 18 years or older.

We aim to collect responses from approximately 150 to 300 participants. There is no payment or reimbursement for participation. However, participants may choose to receive a brief summary of the research findings once the study concludes.

What will Participants be Asked to Do?

Should you agree to take part in this project, you will be asked to complete an online survey that takes approximately 30 minutes.

The survey consists of **four** key sections:

- **Preliminary Questions:** You will first be asked two mandatory questions to confirm that you are eligible to take part in the study. If you meet the criteria, you will continue on to the following sections of the survey.
- Background and Demographics: You will be asked some general questions about your familiarity with cybersecurity concepts and CVEs (Common Vulnerabilities and Exposures), as well as basic demographic information (e.g. age range, technical background). This helps us understand how different groups interpret the descriptions.
- **CVE Specification Justification:** You will be shown 10 short vulnerability descriptions and asked a mandatory question about how well each description is justified by the CVSS v3.1 specification. You will then be asked to highlight or explain which part of the description supports or contradicts the assigned specification value. Finally, you will have the option to provide further free-text comments if you wish.
- **Final Feedback:** At the end of the survey, you will have the option to provide feedback on your experience. This may include how fatigued you felt, how confident you were in your answers, or any suggestions for improvement.

The preliminary, demographic, and justification questions are mandatory. The justification questions will follow with optional open-ended follow-ups if you wish to provide more detail. All mandatory questions will be marked with a red * symbol.

There are no right or wrong answers, and no prior knowledge is required beyond what is presented. You may look up a vulnerability if you are unfamiliar with it, but you will be asked to indicate whether you did so. Please answer these questions honestly.

There are no known risks or discomforts involved in participating. You may stop at any time, and participation is entirely voluntary. Declining to participate will involve no disadvantage of any kind.

What Data or Information will be Collected and What Use will be Made of it?

This project involves the collection of anonymous and non-anonymous survey data. The majority of responses will be non-identifiable, but participants may choose to provide an email address for one of two purposes:

- To receive a summary of the research findings once the study is complete
- To allow their response to be withdrawn upon request

Providing an email address is entirely optional. If you do not provide one, your survey response will remain fully anonymous and cannot be withdrawn once submitted.

The raw data collected will include:

• Responses to demographic and background questions (e.g. age range, technical

- experience)
- Ratings of vulnerability descriptions based on clarity and adherence to established writing standards
- written comments
- Email addresses, used solely for the two purposes listed above

Participants will not be audio or video recorded.

The purpose of collecting this data is to better understand how different users evaluate technical vulnerability descriptions. The findings will be analysed and written up by the student researcher as part of a Master of Science thesis at the University of Otago. A summary of results may also be included in academic presentations or publications.

Who will have access to the data or information?

Access to the data will be limited to the student researcher, their academic supervisor(s), and relevant University of Otago staff involved in overseeing or supporting the research. No research assistants, transcribers, third-party contractors, or external organisations will have access. The project is not externally funded, and there is no commercial use associated with the data.

How will data or information be securely managed, stored and destroyed?

The data collected will be securely stored on the University of Otago's network in such a way that only those mentioned above will be able to gain access to it. Data obtained as a result of the research will be retained for at least 5 years in secure storage. Any personal information held on the participants (such as email addresses) may be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely

Anonymity or Disclosure

The results of the project may be published in academic journals or conferences and will also be deposited in the University of Otago's institutional repository, making them publicly available through the University of Otago Central Library (Te Pātaka Mātauraka o Ōtākou Whakaihu Waka). Every effort will be made to ensure that participants are not identifiable. No individual participants will be named in any reports or publications. Participants who request it may also receive a short summary of the findings once the project is complete.

Can Participants Change their Mind and Withdraw from the Project?

If you provide an email address, you may request to have your data withdrawn from the study at any time up until 31 October 2025. After this date, the analysis will be too advanced to allow for removal of individual data. If you do not provide an email address, your participation will be fully anonymous and your data cannot be withdrawn after submission.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Cody Airey and Veronica Liesaputra, David Eyres

School of Computing School of Computing

airco879@student.otago.ac.nz veronica.liesaputra@otago.ac.nz,

david.eyers@otago.ac.nz

This study has been approved by the School of Computing as stated above. If you have any concerns about the ethical conduct of the research, you may contact the University of Otago Human Ethics Committee through the Human Ethics Committee Administrator (ph +64-3-479-8256 or humanethics@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome."

This research was supported by the Ministry of Business, Innovation and Employment (MBIE), New Zealand. The author gratefully acknowledges this funding, which made this work possible.