

# User evaluation - Human-centric issues visualiser (HCIV)

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You are invited to take part in this online user evaluation study. **You will be paid 4.50 Sterling Pounds via Prolific for your participation.** Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the email addresses listed above.

## **What does the research involve?**

**Background:** Many software systems fail to meet the needs of the diverse end-users in society and are prone to pose problems, such as accessibility and usability issues. Some of these problems (partially) stem from the failure to consider the characteristics, limitations, and abilities of diverse end-users during software development. We refer to this class of problems as human-centric issues (HCIs).

End users report issues in the software they use. These issues may include HCIs. However, to the best of our knowledge, there exists no tool for developers to support in identifying HCIs.

Developers use tools such as Jira to record issues. To this end, we developed a Jira plugin **HCIV** that identifies HCIs in an issue list of a Jira project and visualises the summary of them on a dashboard.

**Objective:** The objective of this study is to evaluate the user experience of the Jira plugin we built.

**What you will have to do:** This study involves watching a video demonstration of our tool, and filling out a questionnaire (this form) to provide us with feedback on the tool.

This form consists of a consent form, questions on your professional background, a link to the video demonstration of the tool and questions to fill out after watching the video. Filling the form will take 15–20 minutes of your time.

## **Invitation**

As a professional software developer, we invite you to participate in this study, and your participation is voluntary.

**Consenting to participate in the project and withdrawing from the research**

**Consenting:** As a general practice, you are required to provide consent through the consent form in the next section.

**Withdrawing:** You can exist without completing this form, and you have the right to withdraw from participation at any time up to 30 days after completion of this form without giving a reason. There are no consequences on withdrawal, and your data will be deleted upon withdrawal.

**Possible benefits and risks to participants**

Participants will be able to use a tool which may directly support them in human-centric software engineering, resulting in the delivery of software solutions which account for human-centric issues which may be experienced by the end-users of the software which they develop.

**Confidentiality**

Your personal data shall only be accessible by the researchers. The researchers will keep your identity confidential and will de-identify your responses (your responses will be given an ID). The researchers will use ChatGPT as a co-analysing tool to analyse the data. The researchers will go through the data thoroughly to remove any identifiable data before uploading it to ChatGPT. Any research publication published as a result of the study will not identify you, your company or any non-participant in your company.

**Storage of data**

Data and electronic copies of consent forms will be securely stored in a Google Drive with restricted access (only investigators have access) for a period of 5 years and destroyed thereafter.

**Use of data for other purposes**

In accordance with data-sharing guidelines, data may be made available for use by other researchers. This data will be held in Chief Investigator's GitHub and may be a requirement of some journals prior to publication. Any shared data will not include your identity details.

**Results**

The findings of this study will be published in academic and practitioner-based journals, conferences, and magazines. Further, free access to the publications in the form of preprints will be available on arXiv (<https://arxiv.org/>).

**Complaints**

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics Committee (MUHREC):

**Executive Officer****Monash University Human Research Ethics Committee (MUHREC)**

Room 111, Chancellery Building D, 26 Sports Walk, Clayton Campus Research Office, Monash University VIC 3800.

Tel: +61 3 9905 2052 Email: [muhrec@monash.edu](mailto:muhrec@monash.edu) Fax: +61 3 9905 3831

Thank You.  
Research Team.

\* Indicates required question

Project ID: 35633



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University

## Consent form

1. I confirm that I have understood the nature of the research, and I have had the opportunity to ask questions and have had them answered to my satisfaction. \*

*Tick all that apply.*

- ☐ I confirm that I am a professional software developer
- ☐ I agree to take part in this study
- ☐ I understand that I am free to withdraw my participation at any time, and to withdraw any data traceable to me up to 30 days from the date of the participation without giving a reason
- ☐ I agree to fill in this questionnaire
- ☐ I understand that de-identified survey responses will be uploaded to ChatGPT for analysis
- ☐ I give consent to share the data collected from me with other researchers whose projects have ethics approval

## Prolific ID

2. What is your Prolific ID? \*

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## Background

This section is intended to gather background information of the participant.

**Note:** We assure details of the participants, and all other confidential information shared will be kept confidential. The details of the participants will not be specified in any of the publications or report.

## 3. How many years of software development experience do you have? \*

*Mark only one oval.*

- ☐ 0-1 years
- ☐ 2-4 years
- ☐ 5-10 years
- ☐ >10 years

4. What role(s) do/have you have in software development? (eg. software developer, \*  
tester, project manager, etc)*Tick all that apply.*

- ☐ Developer
- ☐ System analyst
- ☐ Project manager
- ☐ Product owner
- ☐ DevOps engineer
- ☐ QA engineer
- ☐ Software tester
- ☐ Other: \_\_\_\_\_

## 5. To what extent do you consider HCIs when developing software? \*

*Mark only one oval.*

1   2   3   4   5

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Not ☐ ☐ ☐ ☐ ☐ It is a significant point of focus

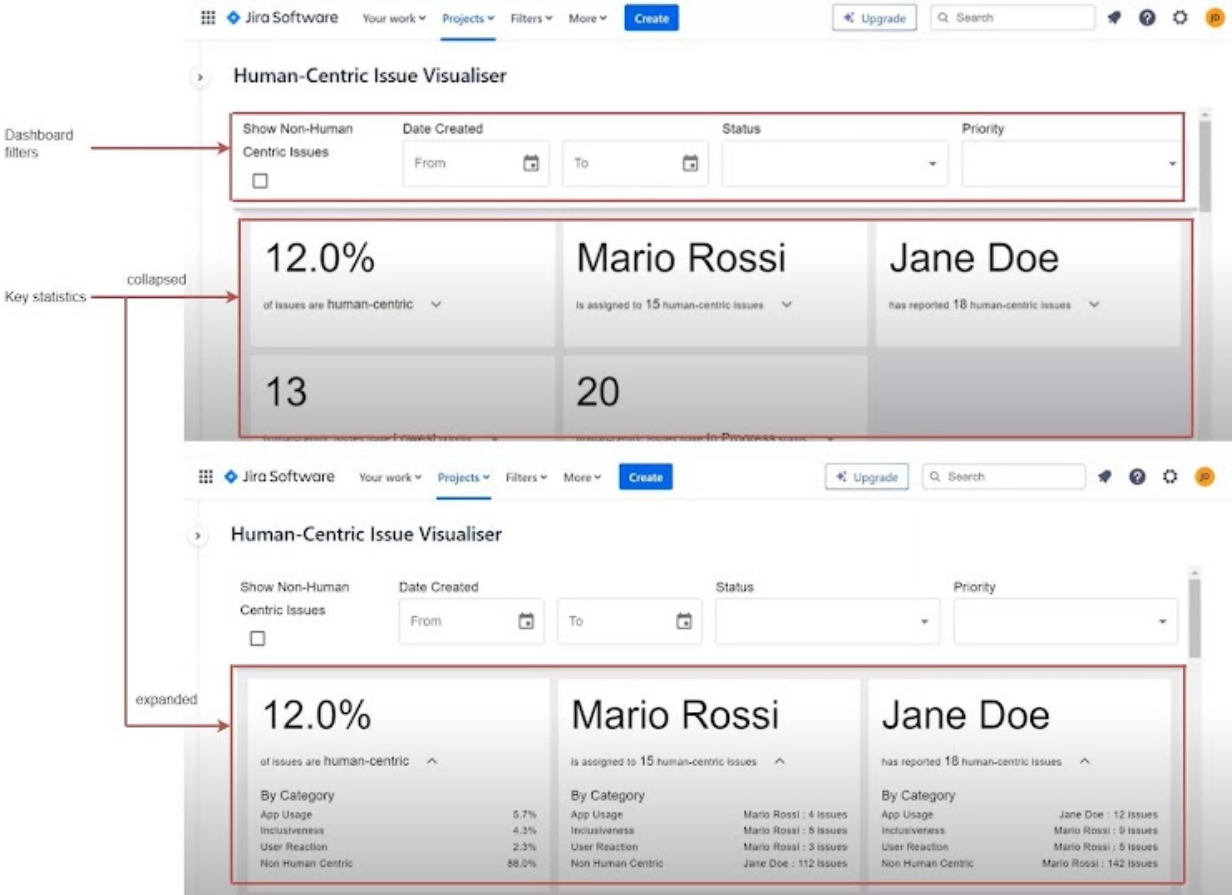
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6. Describe the impact that you think actively considering and attending to human-centric issues during the software development life cycle has, on the efficient delivery of software solutions that satisfy the end users, if any.

Experience

Please watch [this video](#) to answer the questions below.

7. How would you rate the usefulness of the **dashboard filters** (top) in the HCIV to the software development life cycle? \*



Mark only one oval.

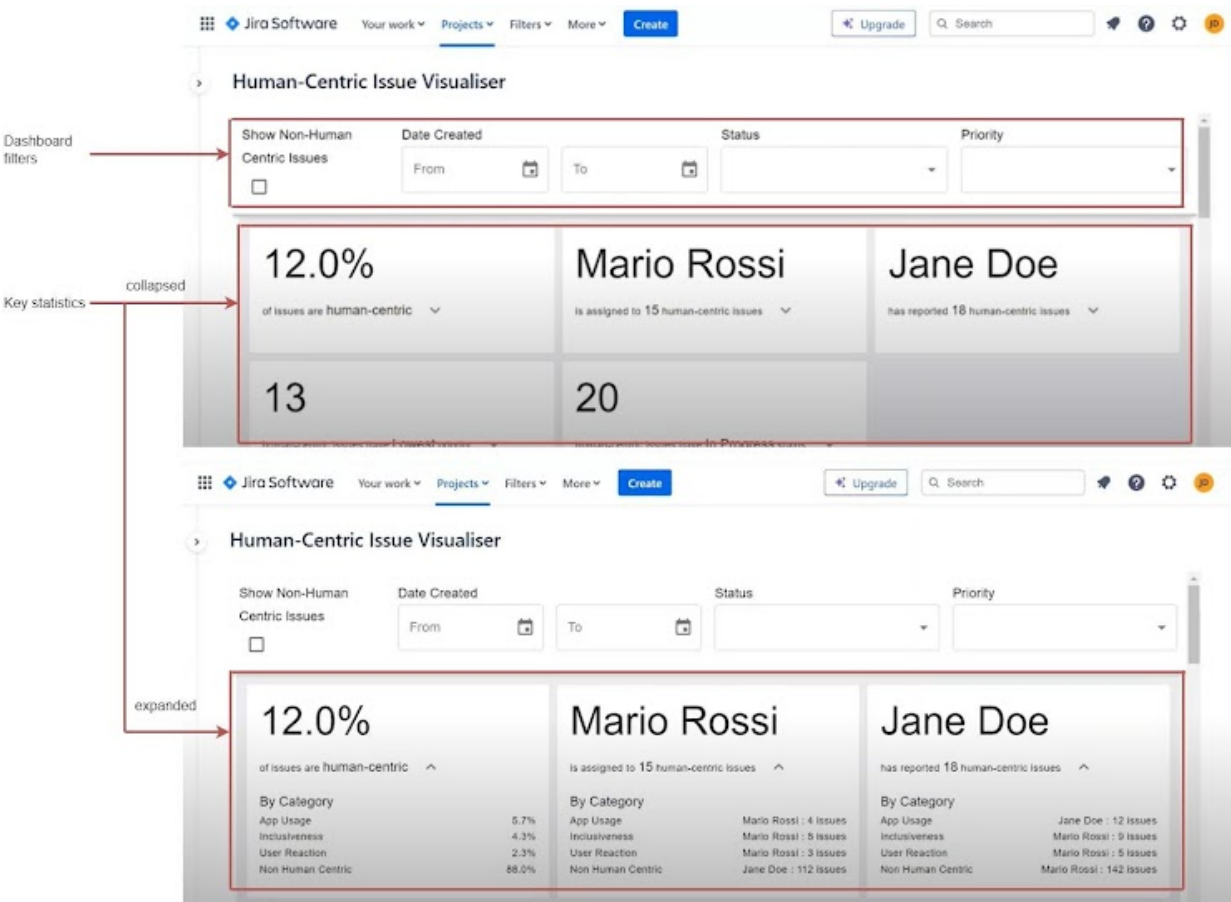
12345

Not ☐ ☐ ☐ ☐ ☐ Very useful

8.

How would you rate the usefulness of the **key statistics** (bottom) in the HCIV to the software development life cycle?

\*



Mark only one oval.

12345

Not ☐ ☐ ☐ ☐ ☐ Very useful

9. How would you rate the usefulness of the **HCI category visualisations** in the HCIV to the software development life cycle? ★



Mark only one oval.

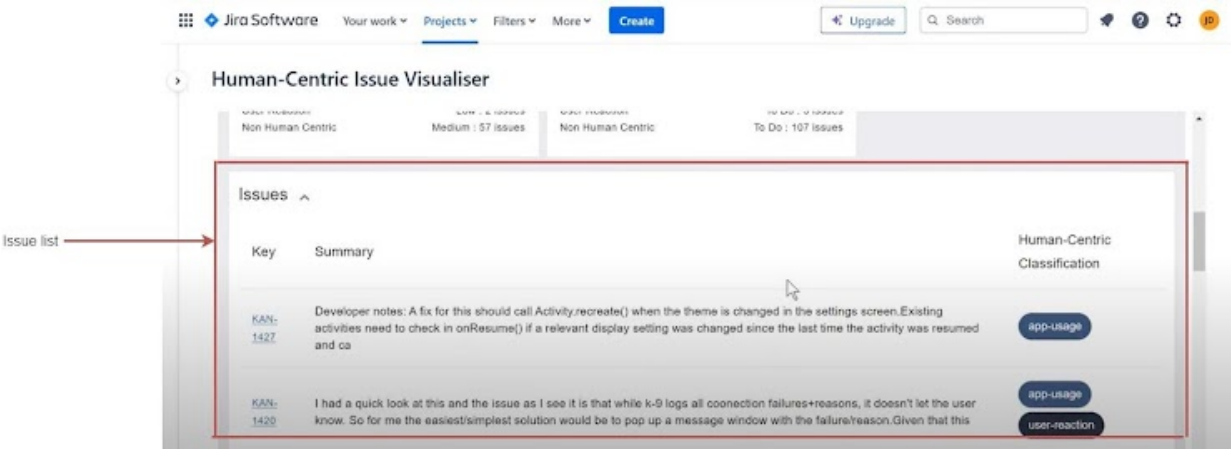
12345

Not ☐ ☐ ☐ ☐ ☐ Very useful

10.

How would you rate the usefulness of the **issue list** in the HCIV to the software development life cycle?

\*



Mark only one oval.

12345

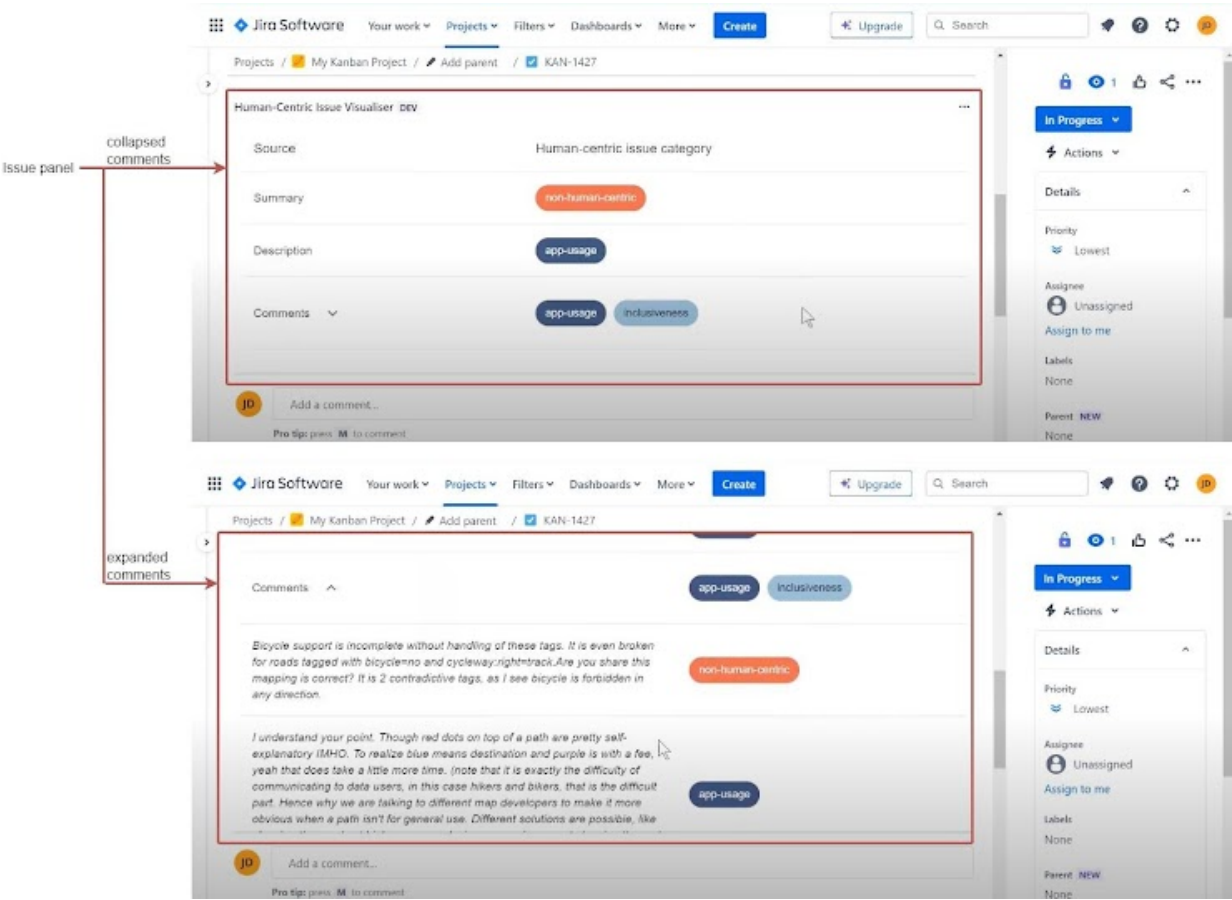
Not ☐ ☐ ☐ ☐ ☐ Very useful



11.

How would you rate the usefulness of the **issue panel** in the HCIV to the software development life cycle?

\*



Mark only one oval.

12345

Not ☐ ☐ ☐ ☐ ☐ Very useful

12. How would you rate the usefulness of the **priority-grouped visualisation** (left) in the HCIV to the software development life cycle? \*



Mark only one oval.

1   2   3   4   5

Not ☐ ☐ ☐ ☐ ☐ Very useful

13. How would you rate the usefulness of the **status-grouped visualisation** (right) in the HCIV to the software development life cycle? \*



Mark only one oval.

12345

Not ☐ ☐ ☐ ☐ ☐ Very useful

14. How would you rate the overall ease/straightforwardness of using the HCIV? \*

Mark only one oval.

12345

Very ☐ ☐ ☐ ☐ ☐ Very easy

15. If you found the HCIV to be difficult to use (answered 1-2 in the previous question), what are the reasons for this?

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16. Could you see yourself realistically using the HCIV in an industry setting? \*

*Mark only one oval.*

☐ Yes

☐ No

17. If you answered 'Yes', which stages of the software development life cycle would you be likely to use it?

*Tick all that apply.*

☐ Planning

☐ Analysis

☐ Design

☐ Implementation

☐ Testing and integration

☐ Maintenance

18. If you answered 'No', what are the reasons for this?

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19. On a scale from 0-10, how likely are you to recommend HCIV to a friend or colleague?

\*

Mark only one oval.

012345678910

Not ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Extremely likely

20. What are the primary reasons for the score you gave in the previous question?

\*

Suggestions

21. Are there any new features/modifications to existing features that you believe would improve the HCIV?

22. Are there any redundant features/features that you would not use, that the HCIV has?

*Tick all that apply.*

- ☐ Dashboard filters
- ☐ Key statistics
- ☐ HCI category visualisations
- ☐ Issue list
- ☐ Issue panel
- ☐ Priority-grouped visualisation
- ☐ Status-grouped visualisation
- ☐ None

23. Any further suggestions regarding the HCIV:

Prolific completion code: XYZ  
Copy and paste this code on Prolific. Thank you for participating in our study!

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