

# User Evaluation of EmoReflex - Developer insights platform

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You are invited to take part in this online user evaluation study. **You will be paid 6 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:** With the growing popularity of agile practices, teams have adopted innovative approaches to facilitate productivity and the flexibility of evolving development cycles. Such environments necessitate team members to welcome possible changing requirements late in development among other things. Examining the subsequent impact on emotions provides an opportunity to explore whether such emotions can be accurately captured and acknowledged to boost productivity. With respect to this, task management and list-making applications assist teams and organisations in managing different tasks.

To this end, we developed an emotion-centric developer insights platform called EmoReflex. EmoReflex has two components. It has a Trello plugin for the team members and an analytical dashboard for the team manager.

**Objective:** The objective of this study is to evaluate the user experience of EmoReflex's Trello plugin.

**What you will have to do:** This study involves filling out a questionnaire (this form). This form only focuses on the experience of the team members. i.e., only focuses the usage of the Trello plugin. The Trello plugin allows the team members to rate emotions, pre-defined metrics, and add reflections for each task in the Trello card assigned to the team members.

This form consists of a consent form, questions on demographics, illustrations of two scenarios of using EmoReflex's Trello plugin followed by a set of questions. Filling the form will take 15–20 minute 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**

Release of EmoReflex to the market for software teams to use.

### **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). 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.

Kashumi Madampe and John Grundy.

\* Indicates required question

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*Project ID: 41279*



## 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 my personal information (age, gender, geographic location) maybe collected in the next section of this questionnaire
- ☐ 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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### Demographics

This section is intended to gather basic 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 old are you? \*

*Mark only one oval.*

- ☐ 20-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41-45
- ☐ 46-50
- ☐ 51 and above

## 4. To which gender identity do you mostly identify? \*

*Tick all that apply.*

- ☐ Man
- ☐ Woman
- ☐ Non-binary/ gender diverse
- ☐ Prefer not to say
- ☐ Other: \_\_\_\_\_

5. In which country do you currently reside? \*

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6. Which of the following describes you, if any?

*Mark only one oval.*

- ☐ I have a concentration and/or memory disorder (e.g., ADHD, etc.)
- ☐ I have anxiety disorder
- ☐ I have a mood or emotional disorder (e.g., depression, bipolar disorder, etc.)
- ☐ I have autism/an autism spectrum disorder (e.g., Aperger's, etc.)
- ☐ I have learning differences (e.g., Dyslexic, Dyslexia, etc.)
- ☐ Other: 

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## Professional Experience

7. Total experience in software industry as a software developer (years) e.g., 2.5 years: \*

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## Context

8. In which industry are you employed? \*

*Mark only one oval.*

- ☐ IT
- ☐ Finance and Banking
- ☐ Transport
- ☐ Medical
- ☐ Telecom
- ☐ Healthcare
- ☐ Manufacturing
- ☐ Other: \_\_\_\_\_

9. How many employees work in your organisation? \*

*Mark only one oval.*

- ☐ Less than 10
- ☐ 11-50
- ☐ 51-100
- ☐ 101-500
- ☐ 501-1000
- ☐ 1001-5000
- ☐ 5001-10000
- ☐ More than 10000

10. Team size. i.e., total number of members in your team: \*

\_\_\_\_\_

## EmoReflex Evaluation

EmoRflex is a two-component app. It has a Trello plugin for the team members and a dashboard

for the manager. Assuming that you are a developer using the Trello plugin, please answer the questions for each of the scenarios given.

The Trello plugin consists of metric boxes and a reflection box. The metrics are set by the manager at their end. Each metric box also has emotions, which are also set by the manager. For example, when the manager sets a metric called "complexity" and five emotions based on the intensity, these appear in the Trello plugin. You are allowed to rate the metrics, emotions, and enter reflections via text. The aggregated metrics and emotion data gets reflected on the manager's dashboard. Your identity will not be revealed to the manager. The reflections you enter via text is only available for you.

The Trello plugin is available on each card on the Trello board.

Trello plugin in action

(video): [https://drive.google.com/file/d/1xbpHCm6WqALYt5b51N\\_2AEIEMntZ4eq-/view?usp=sharing](https://drive.google.com/file/d/1xbpHCm6WqALYt5b51N_2AEIEMntZ4eq-/view?usp=sharing)

To use the plugin, you have to,

### **Scenario A - Metric box:**

1. Click on EmoReflex on the Trello card.
2. Use the first slider to rate how you find the metric related to the task on the card. For the example below, depending on the task given on the Trello card, you can indicate whether the metric "complexity" is "low/medium/high" for you.
3. Click "Save" to save your ratings. Your responses along with your teammates' responses will be aggregated together and will be displayed on manager's dashboard. Your identity will not be revealed to the manager.

### **Scenario B - Reflection box:**

1. Type what you feel about the task on the Trello card.
2. Click "Save" to save your text. This will not be sent to your manager. You will be able to generate a record of what you entered as a PDF later. This is not available at the moment. Only "Save" option is available.

**Metric box**

**Complexity** (?)

Change the first slider to reflect the complexity of the metric. Change the second slider to change the emoji to reflect your emotion.

Low Medium High

1 2 3 4 5

Enter your thought.

Save

**Reflection box**

**Complexity** (?)

Low Medium High

1 2 3 4 5

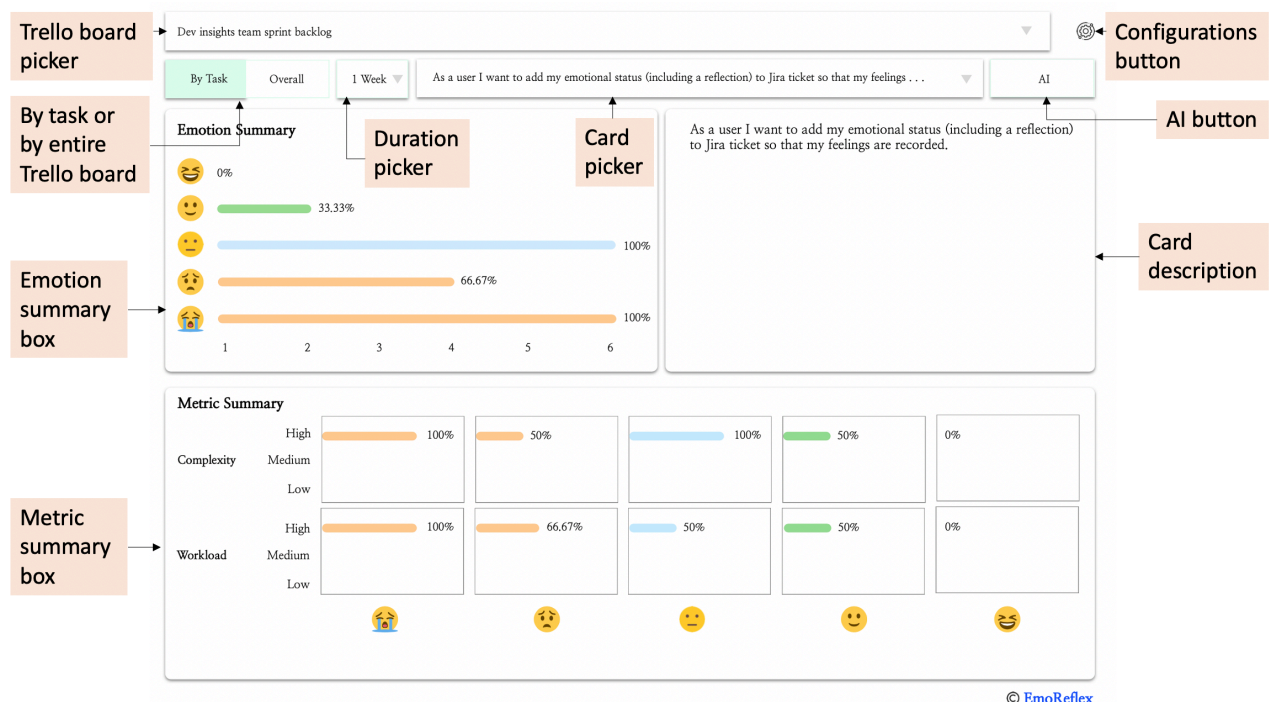
This is extremely complex. Lots of dependencies! I don't know if I will be able to complete before the release date. I can't do this!

Save

**A**

**B**

**How the manager dashboard looks like.** This is only for you to get an idea of the manager dashboard as the ratings of emotions and metrics get summarised for the manager to view at his end. This form focuses only on the Trello plugin. Therefore, please answer the questions only considering of the experience of the Trello plugin.



The same set of questions will be repeated for both scenarios. This section is for Scenario A - Metric box: Assume you rated the metric and the emotional intensity. [Click here to watch the video](#)



11. **Scenario A - Metric box:** How mentally demanding was the task? \*

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

12. **Scenario A - Metric box:** How physically demanding was the task? \*

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

13. **Scenario A - Metric box:** How hurried or rushed was the pace of the task? \*

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

14. **Scenario A - Metric box:** How successful were you in accomplishing what you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

15. **Scenario A - Metric box:** How hard did you have to work to accomplish your level of performance?

*Mark only one oval.*

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

16. **Scenario A - Metric box:** How insecure, discouraged, irritated, stressed, and annoyed were you?

*Mark only one oval.*

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

This section is for Scenario B - Reflection box: Assume you entered your reflections via text. [Click here to watch the video](#)

17. **Scenario B - Reflection box:** How mentally demanding was the task? \*

*Mark only one oval.*

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

18. **Scenario B - Reflection box:** How physically demanding was the task? \*

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

19. **Scenario B - Reflection box:** How hurried or rushed was the pace of the task? \*

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

20. **Scenario B - Reflection box:** How successful were you in accomplishing what you were asked to do?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

21. **Scenario B - Reflection box:** How hard did you have to work to accomplish your level of performance?

Mark only one oval.

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

22. **Scenario B - Reflection box:** How insecure, discouraged, irritated, stressed, and annoyed were you?

*Mark only one oval.*

	1	2	3	4	5	6	7	
Very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very high

This section is about the entire tool. i.e., EmoRlex with the two components: a Trello plugin for the team members, and a dashboard for the manager. Assuming you are a developer who uses only the Trello plugin, answer the following questions.

23. I think I would like to use this system frequently. \*

*Mark only one oval.*

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

24. I found the system unnecessarily complex. \*

*Mark only one oval.*

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

25. I thought the system was easy to use. \*

*Mark only one oval.*

1   2   3   4   5

Stro ☐ ☐ ☐ ☐ ☐ Strongly agree

26. I think that I would need the support of a technical person to be able to use this system. \*

*Mark only one oval.*

1   2   3   4   5

Stro ☐ ☐ ☐ ☐ ☐ Strongly agree

27. I found the various functions in this system were well integrated. \*

*Mark only one oval.*

1   2   3   4   5

Stro ☐ ☐ ☐ ☐ ☐ Strongly agree

28. I thought there was too much inconsistency in this system. \*

*Mark only one oval.*

1   2   3   4   5

Stro ☐ ☐ ☐ ☐ ☐ Strongly agree

29. I would imagine that most people would learn to use this system very quickly. \*

Mark only one oval.

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

30. I found the system very cumbersome to use. \*

Mark only one oval.

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

31. I felt very confident using the system. \*

Mark only one oval.

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

32. I needed to learn a lot of things before I could get going with this system. \*

Mark only one oval.

	1	2	3	4	5	
Stro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

This is the last section of this questionnaire.

33. From your perspective, what are the pros and cons of using EmoReflex at work? \*

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34. What improvements would you expect from EmoReflex? \*

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35. Please feel free to enter any other thing you would like to share with us with regard to EmoRlex.

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