

Reference Number: 30545.

## EXPLANATORY STATEMENT

Software Practitioner

Project Title:	Emotional intelligence of software practitioners when handling requirements changes
Principal Investigator:	Rashina Hoda
Co-Investigators:	John Grundy
Student Researcher:	Kashumi Madampe

### Researcher Introduction

Rashina Hoda is an Associate Professor in the Department of Software Systems and Cybersecurity, Faculty of Information Technology, Monash University, Australia.

John Grundy is a Professor in the Department of Software Systems and Cybersecurity, Faculty of Information Technology, Monash University, Australia.

Kashumi Madampe is a PhD candidate in the Department of Software Systems and Cybersecurity, Faculty of Information Technology, Monash University, Australia.

### Project Description and Invitation

**Background:** The team at Monash has been investigating the emotions of practitioners involved in handling requirements changes during software engineering. Through this work, we have identified key facets of requirements changes in agile - [types, forms, reasons, sources, events, and carriers](#). Following this, we performed a [large scale survey](#) (201 participants) to understand how practitioners emotionally respond to requirements changes. Key findings of this work include emotion dynamics, emotional responses, stimuli triggering emotions, distinct events of project and requirements changes handling life cycles where emotions are triggered, and time-related concerns that regulate emotion dynamics. It also resulted in some promising preliminary findings around the 4 aspects of emotional intelligence that software teams use when handling requirements changes. In addition, Emotional wellbeing has never been as important since software practitioners have been working from home during the Covid-19 pandemic.

**Objective:** The objective of this study is to get an in-depth understanding of the role of emotional intelligence in responding to requirements changes in software development contexts, and how software teams regulate emotions to handle requirements changes.

**Expected outcomes:** 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 investigators' personal websites.

**Expected benefits:** Knowledge and insights about the emotional intelligence of software teams when handling requirements changes, and practical guidelines to regulate negative emotions.

As a software practitioner, we invite you to participate in this study and your participation is voluntary. Upon showing a willingness to participate, further information will be given about the project, participants' demographics will be collected and interview time will be arranged. All data collected will be kept confidential. See 'Anonymity and Confidentiality' section below for details. We will share our findings (e.g. insights, guidelines, recommendations) directly with you.

## **Project Procedures**

This research uses both Quantitative and Qualitative research methods. Using this approach, data will be collected through face-to-face semi-structured interviews, messaging, pre-interview questionnaires, and surveys including a validated well-established emotional intelligence test that has been widely used in multiple disciplines. The interviews and messaging will be approximately 30 minutes long and interviews will be audio-recorded and transcribed to assist in analysis.

Analysis of the data will involve comparing data from one interview to another, and analysis of survey data in order to identify patterns of common concepts. Further abstraction of data at different levels will lead towards a ground theory that will help explain the emotional intelligence and the team emotional climate.

Results from this research will be published for the benefit of greater practitioner and researcher communities. The identity of the participant will not be published in any publication arising out of this research, keeping your identity confidential. The responses you make will be published anonymously.

## **Data Storage/ Retention/ Destruction/ Future Use**

Data (digital and paper artefacts) will be securely stored at the researcher's office at HumaniSE lab, Monash University under password protection (for digital artefacts) and under lock and key (for paper artefacts) and for a period of 5 years and destroyed thereafter. Whilst overseas, data will be kept safe in the shared Google Drive of the investigators. Furthermore, anonymous responses of the participants in the form of the interview transcriptions with the participant IDs will be uploaded to the GitHub repository of the student researcher. The anonymous data will also be uploaded to IEEE data port as required.

Electronic copies of consent forms will be stored at Principal Investigator's office under password protection for the same period as that of data and destroyed thereafter.

## **Right to Withdraw from Participation**

You can ask for the recorder to be turned off at any time without giving a reason. You have the right to withdraw from participation at any time up to 30 days after the interview without giving a reason. And you are offered the opportunity to edit the transcript for 30 days from the receipt of the transcript.

## **Anonymity and Confidentiality**

Your personal data (e.g.: gender, occupation) shall only be accessible by the researchers. The researchers will keep your identity confidential and will make the responses anonymous. Interviews will be audio recorded and transcribed by either the researchers or another transcriber (or both). In case of a third-party transcriber, the person will have signed an appropriate confidentiality agreement. Observations may include digital photographs of the workplace and any other artefact as the participant agrees to share. Reproduction of these photos or artefacts in publications/reports etc. will avoid identification of you or your company. The audio recordings will be stripped off any personal information before being sent to the transcriber. Any papers published as a result of the study will not identify you, your company or any non-participant in your company. As a general practice of ethics approval, we will need the written consent of the participant to be participated. A consent form to the same effect is attached herewith.

## Contact Details

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For any queries regarding ethical concerns you may contact the Chair, Monash University Human Research Ethics Committee, Room 116, Level 1, Chancellery Building D, 26 Sports Walk, Clayton Campus, Wellington Rd, Clayton VIC 3800, Australia, Email: [muhrec@monash.edu](mailto:muhrec@monash.edu)

Approved by the Monash University Human Research Ethics Committee on <date> for five years.