Introduction

UNDERSTANDING EMOTIONAL RESPONSES TO REQUIREMENTS CHANGES IN SOFTWARE DEVELOPMENT

INTRODUCTION
This survey is conducted as a part of a Ph.D. project carried out at the HumaniSE Lab, Faculty of Information Technology, Monash University, Australia.

The research is approved by the Human Ethics Committee of Monash University, Australia for five years on 27th May, 2020. Reference Number: 23578.

Further information about this research is available here.

Investigators: A/Prof. Rashina Hoda (Principal), Prof. John Grundy (Co.), Ms. Kashumi Madampe (Student)

PURPOSE
Requirements changes are crucial in software development. Our preliminary work shows that software practitioners show different emotional responses to requirements changes when receiving, developing, and delivering. The purpose of this survey is to understand further how software practitioners perceive requirements changes in terms of emotional states.

In this context, we define a requirements change to include any of the following: addition/ modification/ deletion of a functional/ non-functional requirement presented in any form such as a user story and a use case.

The findings from this survey will be published in high indexed software engineering venues, and pre-prints will be available freely here.

PROCEDURE
Participation is voluntary. This survey will take approximately **15-20 minutes** of your time. You can stop the survey at any time you want if you no longer wish to participate.

PERSONAL INFORMATION AND CONFIDENTIALITY

Your contact details, should you choose to share them, will be kept confidential, and the responses will be reported anonymously.

CONTACT INFORMATION

If you have any questions regarding this survey and the project, feel free to contact Kashumi Madampe at kashumi.madampe@monash.edu.

CONSENT

By clicking "I consent" below, 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.

☐ I consent to participate in this survey

☐ I confirm that I am a software professional

Personal Information

This section is intended to gather basic information of the participant, team and the projects.

NOTE

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

How old are you?

[20 - 25 ▾]

To which gender identify do you most identify?

◯ Male

◯ Female

◯ Gender diverse

In which country do you currently reside?

Afghanistan ⌄

In which country do you currently reside?

[   ]

General Professional Experience

General Professional Experience

Total experience in software industry (years) eg: 2.5
years:

Total agile experience (years):

Experience with software development methods:
(Select all that apply)

☐ Crystal

☐ Dynamic System Development

☐ Feature Driven Development

☐ Kanban

☐ Scrum

☐ Scrum XP combo

☐ Spotify

☐ Waterfall

☐ XP

Other (Please specifiy)

☐ [   ]

Project and Team Information

IMPORTANT

Please recall **one** current/past project where requirements changes occurred and which stands out in your experience and use that project to answer the following.

Domain of the project:

○ IT

○ Finance & Banking

○ Transport

○ Medical

○ Telecom

○ Healthcare

○ Manufacturing

○ [   ] Other (Please specifiy)

Your working mode during the project:

○ Remote (from home)

○ In-office

○ Remote and in-office combination

○ [   ] Other (Please specify)

Your role in project:

☐ Agile Coach/Scrum Master

☐ Business Analyst

☐ Developer

☐ Manager

☐ Product Owner

☐ Tester

☐ [   ] Other (Please specifiy)

Project contract type:

○ Time and Material (Client pays for any development work irrespective of a fixed schedule)

○ Fixed Price (Client pays only for the predefined work)

○ I don't know

○ [   ] Other (Please specifiy)

Software development method used:

○ Crystal

○ Dynamic System Development

○ Feature Driven Development

○ Kanban

○ Scrum

○ Scrum XP combo

○ Spotify

○ XP

○ Waterfall

○ [   ] Other (Please specifiy)

Iteraration length:

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Weeks   5

Project category:

○ Maintenance

○ Migration

○ New development

○ Software as a Service (SaaS)

○ [ ] Other (Please specifiy)

Team size:

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |

Number of people   5

Software development practices followed:

	Never	Sometimes	About half the time	Most of the time	Always
Collective estimation	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always
Customer Demos	○	○	○	○	○
Daily standup or team meeting	○	○	○	○	○
Definition of Done	○	○	○	○	○
Iteration Planning	○	○	○	○	○
Pair programming	○	○	○	○	○
Product Backlog	○	○	○	○	○
Short iteration/sprints	○	○	○	○	○
Release planning	○	○	○	○	○
Retrospectives	○	○	○	○	○
Review meetings	○	○	○	○	○
Scrum or Kanban board	○	○	○	○	○
Self-assignment	○	○	○	○	○
Sprint backlog	○	○	○	○	○
User Stories	○	○	○	○	○
Use Cases	○	○	○	○	○

Emotion

DEFINITION:

Please note that the emotions we have listed here are from a well-defined and well-known emotion scale. You might find some emotions irrelevant.

Requirements change: can be an addition/modification/deletion/bug-fix of a functional/non-functional requirement presented in any form such as a user story and a use case.

E.g. of a functional requirement: Display the name of the user on home page

E.g. of a non-functional requirement: Portability

Thinking of a recent project, how did you feel when handling requirements changes?

Relax. only 20 items in this list. No more such questions :)

	Never	Rarely	Sometimes	Quite Often	Extremely Often
Angry	◯	◯	◯	◯	◯
Anxious	◯	◯	◯	◯	◯
At ease	◯	◯	◯	◯	◯
Bored	◯	◯	◯	◯	◯
Calm	◯	◯	◯	◯	◯
Content	◯	◯	◯	◯	◯
Depressed	◯	◯	◯	◯	◯
Discouraged	◯	◯	◯	◯	◯
Disgusted	◯	◯	◯	◯	◯
Ecstatic	◯	◯	◯	◯	◯
Energetic	◯	◯	◯	◯	◯
Enthusiastic	◯	◯	◯	◯	◯
Excited	◯	◯	◯	◯	◯
Fatigued	◯	◯	◯	◯	◯
Frightened	◯	◯	◯	◯	◯
Furious	◯	◯	◯	◯	◯
Gloomy	◯	◯	◯	◯	◯
Inspired	◯	◯	◯	◯	◯
Relaxed	◯	◯	◯	◯	◯
Satisfied	◯	◯	◯	◯	◯

Do you feel any other emotions when handling requirements changes? If yes, please comment below.

Circumstances

Please briefly share an example or instance when you felt the following emotions when handling requirements changes. Consider the **types of requirements change** (addition, deletion, modification, combinations of additions, deletions, and modifications, of functional requirements and non-functional requirements) and your **emotions** felt, and **why**.
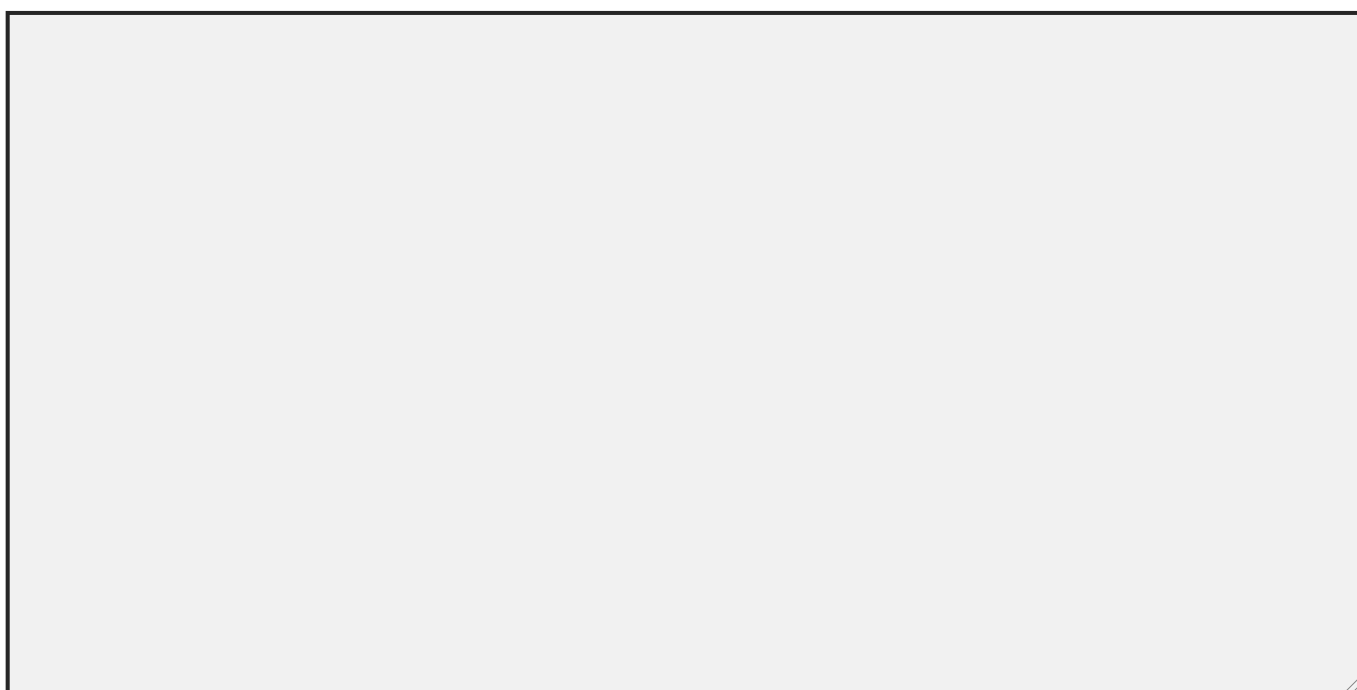
You may also mention,

- The requirements change management process you have in place
- Techniques and tools you used to handle the requirements changes

Energetic/ excited/ ecstatic/ enthusiastic/ inspired:

At-ease/ calm/ content/ satisfied/ relaxed:

Angry/ anxious/ disgusted/ frightened/ furious:
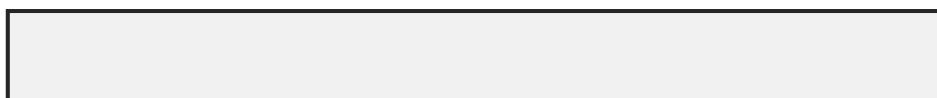
Bored/ depressed/ discouraged/ gloomy/ fatigued:

End

Are you willing to be interviewed to share more about how your team handles requirements changes in software development?

○ Yes

○ No

Please provide below information for us to contact you for the interview in future.

Full Name

Email Address

Any other feedback on this survey?

Survey by HumaniSE Lab, Faculty of Information Technology, Monash University, Australia
Contact: kashumi.madampe@monash.edu | Monash HEC Approval Number: 23578

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