



## Explanatory Statement

### HONESTY VIOLATIONS IN MOBILE APPS

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**Honesty** is a character quality of being sincere, truthful, fair, and straightforward, and refraining from lying, cheating, deceit, and fraud (Collins dictionary). **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps (Obie et al., 2022).

Please read this description 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 below.

#### What does the research involve?

**Background:** Our previous research indicates that honesty violations exist in mobile apps. These violations belong to the categories such as unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

Some examples of mobile app reviews with honesty violations are as follows.

- **Unfair cancellations and refund policies** (Users perceive the cancellation and refund policy as unfair, nontransparent, or deliberately misleading; and user feels that the developers deliberately make it difficult for the user to cancel their subscription): *“Deceptive billing practices – information on cancelling is circular; emailed a link that advises to email. [It] doesn’t have colour tag functionality across web and app; very poor UX and worse customer service.”*
- **False advertisements** (User perceives that the advertised features and functionalities of the app as described by the developers are not contained in the app): *“Couldn’t find Google Assistant integration anywhere. Even though it’s been advertised everywhere when searching the web for the app... It’s even in the description of the app here. That’s false advertising. I will edit my review when it’s out of Beta and working in the final version.”*
- **Delusive subscriptions** (Complaints related to unfair or nontransparent automatic subscription processes): *“I can’t believe I was charged 55.99. What are you giving me?”*

*Gold? I unsubscribed but saw mysterious charge in my bank account."*

- **Cheating systems** (User's perception of fraud by other persons or cheating within the inner workings of the app): *"This game cheats. It uses words not found in the dictionary. Also it told me a word was unplayable, but it was the first best word option."*
- **Inaccurate information** (Users perceive that the app provides false or inaccurate information as captured in their reviews. This includes situations where inaccurate information can increase the likelihood of the user inadvertently making wrong selections at a cost to them): *"Very annoying every time when you open the app it shows you have a notification. Then checking your notifications you don't have any."*
- **Unfair fees** (Issues surrounding what the user considers to be unfair fees or charges. This also applies to cases where the user feels that they have not received a fair deal or that the app charges more money than it ought to): *"It charged me £74.50 when I bought a ticket for £1.50 it's a absolute scam I want my money back!"*
- **No service** (User complains of not being able to access the app's main functionality after purchase, leading to undesirable consequences for the user): *"I spent 20 euros with all the DLCs included, I feel pretty deceived not being able to play the game."*
- **Deletion of reviews** (App developers are suspected of deleting reviews left by the user, especially negative reviews): *"I left them a negative review and the developer deleted it. Now I'm going to review them on YouTube and all social media platforms. Basically, they are scammers."*
- **Impersonation** (An act of pretending to be another person or entity): *"Good game, fake players online. I wanted a challenging Monopoly game. But when I start. I can tell that some are bots not real people online. For example, they quickly trade when it is their turn. A normal human will take some time to choose options."*
- **Fraudulent-looking apps** (Suspicious-looking apps based on observations of users or apps deemed to be fake by the users): *"This is a fraud app don't download"*

Some examples of mobile app reviews without honesty violations:

- *"I love using this app however when I installed it to one of my phones I cannot login to it. It just keeps closing. I don't know what's wrong. Also I wish the widget would contain date and time of the tasks not just tick marks."*
- *"Love the 'Plan Your Day' feature. I ended up going back to old school and using physical index cards instead of any apps, since that works better with my mind, but this was the best app I had found of many tried. Fair pricing as well."*
- *"Best reminder/to-do list in my honest opinion, and I have tried a LOT. Give it a shot and I bet you won't be disappointed."*

**Objective:** The objective of this study is to gain an in-depth understanding of mobile app developers' experiences with reported honesty violations in their mobile apps and their approaches to fixing them if any.

**Procedure:** This project follows the below step-by-step process.

**Data collection:** If you are willing to participate in this study, you may fill in this questionnaire

(around 20 minutes to fill) consisting the consent to participate, questions on demographics, your experience with honesty violations in your mobile apps reported by users.

**Data analysis:** The researchers will analyse the collected data quantitatively and qualitatively. Analysis of the data will involve comparing data from one survey response to another in order to identify patterns of common concepts. Further abstraction of data at different levels will lead to new knowledge and insights about mobile app developers' experiences with honesty violations in mobile apps.

### **Invitation**

As a mobile app 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 give your consent to participate by ticking the boxes given in the latter part of this page.

**Withdrawing:** You can exit without completing this questionnaire without giving a reason. There are no consequences to withdrawal.

### **Possible benefits**

Knowledge and insights about honesty violations in mobile apps, and practical guidelines to manage them.

### **Confidentiality**

This survey is anonymous. 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 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 Figshare and may be a requirement of some journals prior to publication. Any shared data will not include your identifying 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  
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**Tel: +61 3 9905 2052 Email: [muhrec@monash.edu](mailto:muhrec@monash.edu)  
Fax: +61 3 9905 3831**

**INVESTIGATORS**

Prof. John Grundy (Chief Investigator), Dr. Humphrey Obie, Dr. Mojtaba Shahin, Dr. Hourieh Khalajzadeh, and Ms. Kashumi Madampe.

**CONTACT INFORMATION**

If you have any questions regarding this survey and the project, feel free to contact Prof. John Grundy or Kashumi Madampe at [{john.grundy, kashumi.madampe}@monash.edu](mailto:{john.grundy, kashumi.madampe}@monash.edu).

**CONSENT**

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 confirm that I am a mobile app developer
- ☐ I agree to take part in this study
- ☐ I understand that I am free to withdraw my participation at any time without giving a reason
- ☐ I agree to fill in this questionnaire
- ☐ I understand my personal information maybe collected in the next section of this questionnaire

**Prolific ID**

What is your Prolific ID?

*Please note that this response should auto-fill with the correct ID.*

{e://Field/PROLIFIC\_PID}

## 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.

How old are you?

20 - 25

To which gender identify do you most identify?

☐

Male

☐

Female

☐

Non-binary / gender diverse

☐

My gender identity isn't listed. I identify as:

☐

Prefer not to say

In which country do you currently reside?

Afghanistan

## General Professional Experience

Total experience in software

industry (years) eg: 2.5  
years:

Total mobile app  
development experience  
(years):

## Context

Which kinds of mobile apps do you or your company develop?

<input type="checkbox"/> Art and Design	<input type="checkbox"/> Entertainment	<input type="checkbox"/> Maps and Navigation	<input type="checkbox"/> Shopping
<input type="checkbox"/> Auto and Vehicles	<input type="checkbox"/> Events	<input type="checkbox"/> Medical	<input type="checkbox"/> Social
<input type="checkbox"/> Beauty	<input type="checkbox"/> Finance	<input type="checkbox"/> Music and Audio	<input type="checkbox"/> Sports
<input type="checkbox"/> Books and Reference	<input type="checkbox"/> Food and Drink	<input type="checkbox"/> News and Magazines	<input type="checkbox"/> Tools
<input type="checkbox"/> Business	<input type="checkbox"/> Games	<input type="checkbox"/> Parenting	<input type="checkbox"/> Travel and Local
<input type="checkbox"/> Comics	<input type="checkbox"/> Health and Fitness	<input type="checkbox"/> Personalization	<input type="checkbox"/> Video Players and Editors
<input type="checkbox"/> Communications	<input type="checkbox"/> House and Home	<input type="checkbox"/> Photography	<input type="checkbox"/> Weather
<input type="checkbox"/> Dating	<input type="checkbox"/> Libraries and Demo	<input type="checkbox"/> Productivity	<input type="checkbox"/> Other (Please specify)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<input type="checkbox"/> Education	<input type="checkbox"/> Lifestyle		

Definition: **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

Which kinds of honesty violations have you received through app reviews for your mobile apps and how often?

Never      Sometimes      About half the time      Most of the time      Always

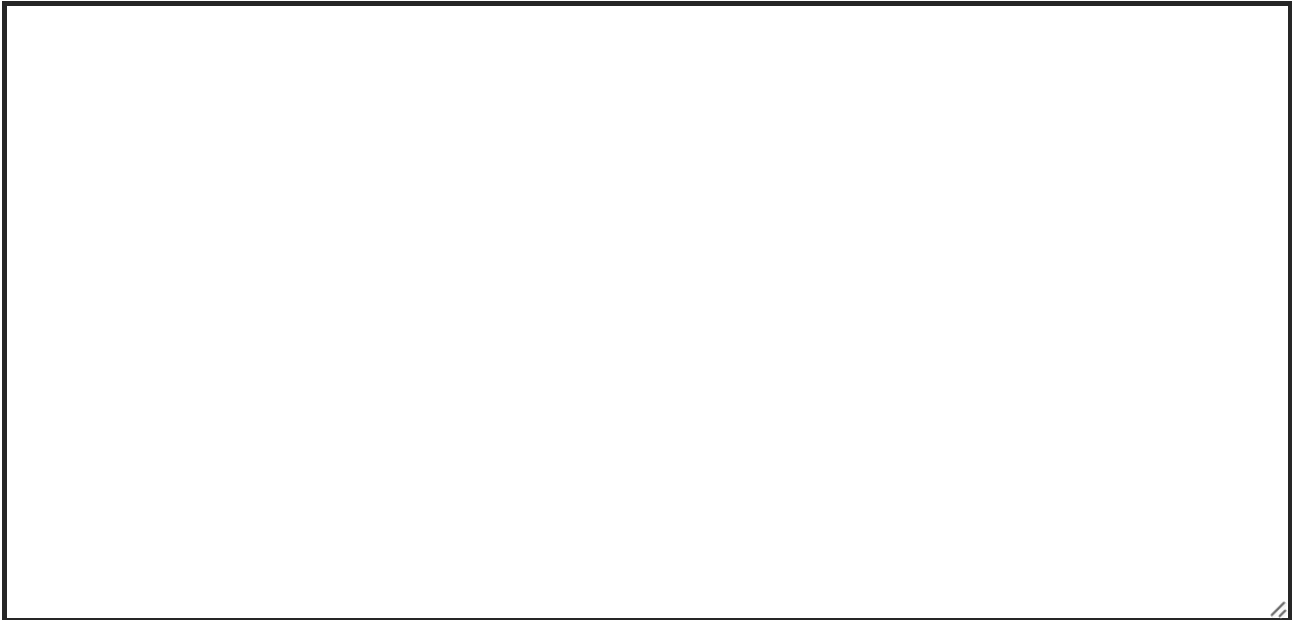
Unfair cancellation and refund policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
False advertisements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delusive subscriptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheating systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inaccurate information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfair fees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deletion of reviews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impersonation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fraudulent-looking apps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you received reviews indicating honesty violations than what is given above for your apps?  
If yes, please specify below.

## Causes

Definition: **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

Why do you think honesty violations happen in mobile apps?



Who do you think is responsible for honesty violations in mobile apps?

- ☐ App owners (customers)
- ☐ Managers
- ☐ Business Analysts
- ☐ Product Owners
- ☐ Developers
- ☐ User support roles
- ☐ No one
- ☐ Other (Please specify)

## Consequences

Definition: **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

According to your experience, how could honesty violations in mobile apps impact the end users?





According to your experience, how could honesty violations in mobile apps impact the developers/ owners of the mobile apps?



## Strategies

Definition: **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

What do you do to avoid honesty violations in mobile apps you develop?



If you address the honesty violations in your mobile apps, what do you do to fix them?



## ML Model

Definition: **Honesty violations** in mobile apps can be unfair cancellation and refund policies, false advertisements, delusive subscriptions, cheating systems, inaccurate information, unfair fees, no service, deletion of reviews, impersonation, and fraudulent-looking apps.

Do you agree with the statement: "Automatically detecting honesty violations in mobile app reviews with high accuracy is useful"?

- ☐ Strongly disagree
- ☐ Somewhat disagree
- ☐ Neither agree nor disagree
- ☐ Somewhat agree
- ☐ Strongly agree

Who will benefit from automatically detecting honesty violations in mobile app reviews?

- ☐ App owners (customers)
- ☐ Managers
- ☐ Business Analysts
- ☐ Product Owners
- ☐ Developers
- ☐ User support roles

- ☐ End users
- ☐ No one
- ☐ Other (Please specify)
- 

How do you think they will benefit?

A study by HumanISE Lab, Faculty of Information Technology, Monash University, Australia.  
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