Android Device Risk Assessment Tool:

Using Common Permissions to Identify Applications Used in Intimate Partner Violence

Kathryn Reardon

November 24, 2020

Abstract

* Write after finishing report
* 120 – 500 words, or 1-2 paragraphs
  + 25% on purpose/importance of research (Introduction)
  + 25% on what I did (Methods)
  + 35% on what I found (Results/Evaluation)
  + 15% on implications of research (Discussion)

1 Introduction

* Problems my project addresses
* Goals of research
* Threat model
* Markers of evaluation—“I am successful if…”

2 Background and Related Work

* Summary of work from Cornell Tech and NYU
* Brief description of security clinic and ISDi tool

3 Dataset Description and Properties

* Describe apps used for analysis and how/why they were obtained/chosen
* How were permissions analyzed
* Sorting permissions by protection level

4 Using Guilt-by-Association

* Brief description of CreepRank algorithm
* Permissions grouped by usage
* Deciding which permissions are guilty of spyware use
* Heuristic weights and rationale

5 The Risk Assessment Tool

* How the Horoscope app and risk assessment tool are intended to be used

1. The Horoscope app

* How it works
* Why it is designed the way it is
* What it provides for the main tool

1. The Risk Assessment tool

* How it works
* What it shows
* How results should be interpreted

6 Evaluating Efficacy

* Show testing examples
* Evaluate results—satisfactory? Does it meet established goals? Mixed results?
* Thoughts about why results are such

7 Discussion

* Did I achieve my goals? Which ones?
* Limitations
* Implications of research
* Future work/context of project beyond this experimental stage

8 Conclusion

* Summarize accomplishments

REFERENCES