

An Investigation into Energy Consumption Based on User App Usage of Android Devices

INTRODUCTION

With mobile manufacturers needing to produce better hardware for example, higher pixels density screens for smaller devices, there is no surprise that the consumer will need to regularly charge their mobile device.

Research has shown that improvements to battery hardware have made very little progress during the last decade.

Purpose of the project is to produce a mobile app for Android, which helps its users understand and measure how their mobile runs on a given day.

This information will then be aggregated and displayed to the user in a digestible way that will allow them to see their devices' consumption, and overall consumption.



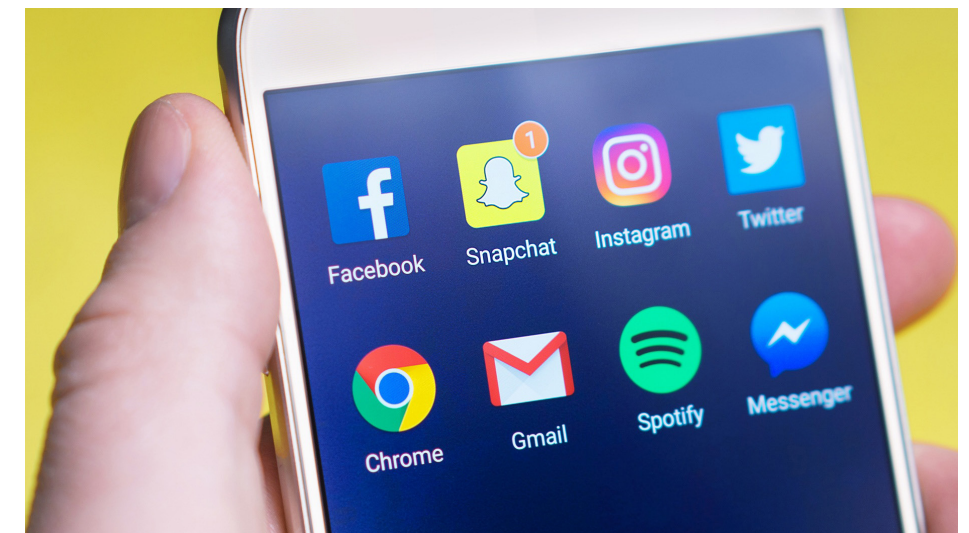
AIMS & OBJECTIVES

The primary goal to this project, is to make a mobile app that offers users an insight into their consumption of technology, by making them consciously aware of when, and how often they utilise these resources.

With the user's consent, anonymised data will also be collected, then analysed. Through analysis of data, patterns may also emerge relating to addiction through mobile usage. A social anxiety known as Fear of Missing out (FoMo) – where you feel the need to always be connected with what others are doing [1].

The following outlines the objectives:

1. Research existing/future practices used in managing energy consumption.
2. Investigate and evaluate methods to storing medium to large geographical datasets, and the means to querying it.
3. Design and development of a mobile application.
4. In-app data analysis of collected data from consenting users.
5. Analyse and evaluate the mobile app.



CONCLUSION

Towards the end of the project, the mobile app should be completed to a satisfactory standard, and runs well on several devices.

If there are active users on the app, data should have been analysed for those who offered consent.

Finally, it would be a bonus if the app, offered value to those who used it during this period.

BIBLIOGRAPHY

1. A. K. Przybylski, K. Murayama, C. R. DeHaan, and V. Gladwell, "Motivational, emotional, and behavioral correlates of fear of missing out," *Comput. Human Behav.*, vol. 29, no. 4, pp. 1841–1848, Jul. 2013.