

Managing Anxiety through Mobile Application Training Suites
(Technical Report)

Mobile Phones and Relationships
(STS Research Paper)

An Undergraduate Thesis Portfolio
Presented to the Faculty of the
School of Engineering and Applied Science
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Science

by

Jacobo Pacheco

May 8, 2020

Preface

How do mobile phones change human behavior? In 2018, smartphones were the dominant platform compared to desktop and tablet computers in terms of minutes of use, and apps accounted for over 80 percent of mobile device use time. In 2019, 89 percent of people worldwide always had their smartphone within arm's reach. Due in part to such extent of use, mobile phones affect human behavior.

How can a mobile application training suite relieve the user's anxiety? The Computer Science capstone team worked with MindTrails, a University of Virginia research initiative, to create an anxiety training mobile application. The MindTrails website offers users training to help them prevent anxious thoughts, but retention is low. MindTrails anticipates that a new mobile app would improve retention. The team used React Native and Flask to build a mobile app for iOS and Android platforms. To improve accessibility, the app stores user progress locally and uses notifications to retain users who are at risk of abandoning the program.

How do critics and defenders of phones as a medium of interpersonal relationships advance their respective agendas? Phones have transformed human interaction. Some groups argue that phones are essential for relationships, while others contend that phones impair our interpersonal skills and are highly addictive. According to Facebook, its mission is to “bring the world closer together.” Social media companies such as Facebook argue that smartphones have enabled social media, thereby increasing social connectedness, while others, such as Newport Academy, argue that technology and interpersonal communication are often a poor match. Critics and defenders agree that social connection is essential to mental health, but disagree about phones' implications for social connection.

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