

Managing Anxiety through Mobile Application Training Suites
(Technical Report)

The Function of Mobile Device Use in Modern Child Development
(STS Research Paper)

An Undergraduate Thesis Portfolio
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School of Engineering and Applied Science
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Bachelor of Science in Computer Science

by

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Preface

How can mobile devices promote individual wellbeing? Mobile device use has increased among all age groups, and such devices may therefore offer a means of improving access to mental health care. However, mobile devices can introduce new hazards to personal wellbeing.

How can a mobile application training suite relieve the user's anxiety? The capstone team worked with MindTrails, a University of Virginia research initiative, to create an anxiety training mobile app. The MindTrails website offers users training in anxiety management, but retention is low and accessibility is limited. MindTrails anticipates that a mobile app would improve retention and access. The team used React Native and Flask to build a mobile app for iOS and Android platforms. We improved accessibility by storing user progress locally, and used notifications to retain users who are at risk of abandoning the program.

How do the defenders and critics of mobile device use among children advance their respective agendas? Through mobile devices, many children are exposed to online media at an early age. Some mobile developers have responded with content that is purportedly beneficial for children while others seek to exploit them. Groups such as the Entertainment Software Association argue that mobile devices can promote healthy child development, while others, such as the World Health Organization, contend that such devices detract from development. All sides appeal to parents through sometimes selective claims about the mental and social health effects of device use.

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