TrackIt – Your personal cash tracker
Shaun Ayrton and Raul Zablah
Advisor: Chris Murphy
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Abstract
TrackIt is a mobile application that integrates speech-to-text and natural language processing technologies to help users track cash transactions in an easy, fast, and unobtrusive manner. TrackIt is:
• Developed on the Android platform
• Works in both online and offline settings
• Targets the low and middle-income population in developing countries.

Motivation
Extensive use of cash for transactions
• Over 50% of population solely use cash
• Credit card access < 8%
Poor financial literacy rates
• Access to secondary education < 10%
• Access to primary education < 37%
Rapid growth in smartphone adoption
• 5 year look-ahead CAGR = 15.8%
• Increased affordability and functionality

Our Solution
TrackIt is a mobile application that enables low – middle income families to track and view their daily cash expenditures. It is the first financial tracking application that combines offline speech to text and NLP to provide a seamless user experience.

Evaluation
Technical
• Accuracy - Basic numerical input: 98%
• Efficiency - Time taken to process input < 1 second
• Seamless - online and offline functionality

User Demand
• Survey to university students
• Live demo for beta users
• Focus group interviews in India, South America, and Africa

Conclusions
• Successfully developed an Android application that can accurately recognize and efficiently interpret speech inputs and display aggregate expenditure data
• Application works seamlessly in online and offline environments

Future Work
• Add financial investment recommendations
• Use machine learning techniques to improve accuracy of complex speech to text inputs and provide customized recognition for unique users
• Integrate security and encryption standards into the cloud data storage