AntEater: Challenging your Automatic Negative Thoughts

Jogesh K. Muppala
Dept. of Computer Science and Engineering
The Hong Kong University of Science and Technology
muppala@cse.ust.hk
Project Briefing

- Automatic negative thoughts (ANTs) plague many people and are a big drain on their motivation and enthusiasm.
- This project aims users at helping combat their ANTs.
- Using a backend cloud-based big data analytics the system facilitates psychological intervention with the help of trained psychologists to assist people in need of counseling.
- The approach makes addressing mental health issues affordable, accessible and scalable to large populations.
Mobile Application

- Allows patients to record their thoughts and reconcile them
- Thought recording
- Conflict resolution
- Transcripts of records
- Periodic alerts and reminders
Big Data Analytics Module

- Analyze collectively the records of patients:
- Understand triggers for negative thoughts
- Identify correlations among thoughts, situations and actions
- Identify successful resolution strategies
Expert Analysis

- Psychology experts to review and guide the analysis
- Confirming the analysis results
- Suggest intervention strategies
- Evaluation of results
Infrastructure Overview

Backend Infrastructure

User Services
Data Collection

Domain Expert Services

Backend Server

Data Analytics Engine

Data Layer

Data Sources