

# 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



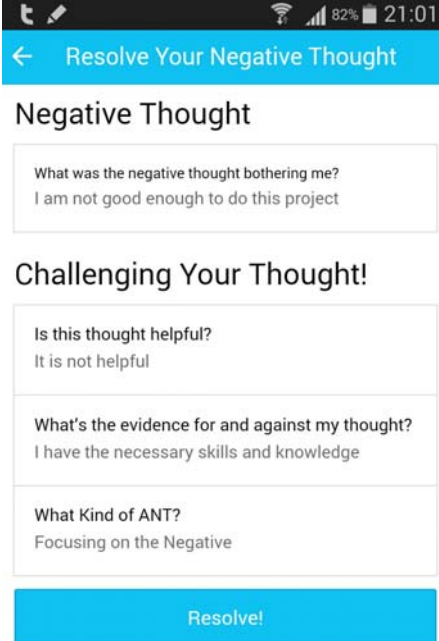
# Project Briefing

- 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



The screenshot shows a mobile application interface with a black status bar at the top displaying a signal strength icon, Wi-Fi icon, 82% battery, and the time 21:01. Below the status bar is a blue header bar with a white back arrow and the text "Resolve Your Negative Thought". The main content area is white and contains three text input fields, each with a question and a user response:

- Negative Thought**  
What was the negative thought bothering me?  
I am not good enough to do this project
- Challenging Your Thought!**  
Is this thought helpful?  
It is not helpful
- What's the evidence for and against my thought?  
I have the necessary skills and knowledge
- What Kind of ANT?  
Focusing on the Negative

At the bottom of the form is a blue button with the text "Resolve!" in white.



# 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

