Problem-Solution fit canvas 2.0

Purpose / Vision: A Novel Method for Handwritten Digit Recognition

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Accountant, person with poor eye sight, cashier in grocery shop.

6. CUSTOMER CONSTRAINTS — CC

It is a difficult because most person's handwriting will not similar, scanner or camera work perfect in perfect light condition, It took to much time to process.

5. AVAILABLE SOLUTIONS — AS

Various people's handwriting should be used for train the AI. That should improve the accuracy.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Online handwriting recognition systems are more accurate than offline systems. Improper usage of the app by the user may lead to problem in recognizing the digits.

9. PROBLEM ROOT CAUSE — RC

A small recognition error may cause the big difference in the end result.

7. BEHAVIOUR — BE

Before processing the image application should verify the photo was taken in correct angle and correct lighting. User should completely aware of instruction of application.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS — TR

so much work for the user, take too much time taken, poor user friendly.

4. EMOTIONS: BEFORE / AFTER — EM

Cashier in the grocery shop can attend more customer than usually by manual method.

10. YOUR SOLUTION — SL

The handwritten recognition model takes an image as an input and compare the preprocessed digits with the trained datasets and give the output of digits as a text format.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

Online handwriting recognition involves the automatic conversion of text as it is written on a special digitizer where a sensor picks up the pen-tip movements as well as pen-up/pen-down switching.

8.2 OFFLINE

K-NN combined with preprocessing methods can achieve great performance apart from Neural Network when used as a classification algorithm in offline handwritten digit recognition.

Extract online & offline CH of BE

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