Problem-Solution fit canvas 2.0

Purpose / Vision **A Novel Method for Handwritten Digit Recognition System**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Postmen, people delivering couriers.
People working in banks.
Historians, writers, etc trying to interpret old handwritten letters, papers.

6. CUSTOMER CONSTRAINTS — CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

The available solution is not widely known and used.
The solution has to be made easily available for everyone to use.

5. AVAILABLE SOLUTIONS — AS

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

Character extraction->character recognition
Feature extraction

Modern methods are more efficient and reliable than the above mentioned traditional methods.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

A method to recognize handwritten digits.

9. PROBLEM ROOT CAUSE — RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

The need to recognize handwritten digits and text.
The need to interpret postal address, bank Cheques, old handwritten letters, papers and for signature verification.

7. BEHAVIOUR — BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

Find if there are already available methods to recognize handwritten digits and texts, and if yes try to make use of them.

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

Identify strong TR & EM

3. TRIGGERS — TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

Upcoming technologies like Deep learning and ANN.

4. EMOTIONS: BEFORE / AFTER — EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Before: confused, helpless
After: confident, hopeful

10. YOUR SOLUTION — SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

A web application that takes images of handwritten digits and recognizes them.
The underlying technology is CNN and the app is built using Flask Framework.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

Automatic conversion of text as it is written on a specialized digitizer or PDA.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Scan the handwritten digit or text and then use that for recognition.

Extract online & offline CH of BE

AMALTAMA