Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?

*Government employees
*banker
*people working with hand-written textual data that want to recognize and process hand-written digits automatically.
*A person who needs to read postal addresses, bank check amounts, and forms

6. CUSTOMER — 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.

Inaccessiblity of proper cameras, lack of stable internet connections, inavailability of devices such as mobiles and laptops
It is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavors.
The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image.

Explore AS, differentiate

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

*There are existing alternative solutions for this problem but these approaches are rather inaccurate and are not robust or invariant to rotations and variations.
*The capability of a computer to fete the mortal handwritten integers from different sources like images, papers, touch defence.

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.

*Jobs: Recognizing and ascertaining the handwritten digits

*Problems: Hard to recognize digits, dim lighting, weak eyesight

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.

Hand-written digits are in varying fonts and sizes, thus they are becoming increasingly difficult to ascertain due to various factors such as weakening eye-sight, time constraints, etc.

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)

Customer seeks quality cameras and stable internet connection services. Customer may also obtain devices such as mobiles and laptops

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.

The live recognition rate highly depends on the digit skew, as automatic de-skewing was not implemented, but manually performed.

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.

Customers will be able to increase productivity and reduce time taken for tasks. Recognition reveals more information therefore provides more opportunities for personal characteristics estimation, particularly, emotional state

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.

The proposed solution aims to accurately recognize hand-written digits using deep learning and computer vision techniques thereby saving costs to the organization and improving employee productivity.

8. CHANNELS of BEHAVIOUR — CH

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

Stable internet connection is required for uploading and processing of the images.

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

Procure modern electronic devices and ensure they're working

Extract online & offline CH of BE

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