Problem-Solution fit canvas 2.0

Project Title: A Novel Method For Handwritten Digit Recognition System

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Define CS, fit into

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?

The main customers for our project are:

- Person who wants to recognize the handwritten digit.
- Person who deals with digits in sector like Schools, Bank, etc.

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.

- It is not possible to give a accurate digit recogntion which are wriiten by human all the time. Sometimes it will give an error.
- It is hard to implement a machine to find a digit.

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 dothese solutions have? i.e. pen and paper is an alternative to digital notetaking

The solution is to recognize the numeral and Make notes on paper and a pen. As opposed to employing a system.

Explore AS,

Focus on J&P, tap into BE, understand

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.

- Create a platform to facilitate Handwritten Digit Recognition.
- A platform to make it simpler to recognize the handwritten words.
- Make the recognizing complex words written by human simpler

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.

- In order to recognize handwritten numbers, we must overcome many obstacles. Due to varying writing habits and a lack of Optic character recognition. This study provides a thorough comparison of several machine literacy and deep literacy approaches.

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)

- Finding the finest software to more quickly and accurately recognize digits

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS — TR

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

- It is necessary to make aware of this system is available among the people and make use of it.
- How to use this system efficiently

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: Make sure the system works correctly at most of the time.
- After: How to find a solution while facing a problem

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 inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

The Handwritten Digit Recognition System, which uses an image of a digit to identify the digit present in the image, offers a solution to this issue. To recognize handwritten numbers, a convolutional neural network model created using PyTorch was deployed to the MNIST dataset.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

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

- Use software that is accessible online.

8.2 OFFLINE

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

- Obtain current electronics and make sure they function. Extract online & offline CH of B

Extract online & offline CH of BE

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