

## Problem-Solution fit canvas 2.0

## Purpose / Vision

## 1. CUSTOMER SEGMENT(S)

CS

One who wants to extract  
digits from handwritten text  
images

## 6. CUSTOMER CONSTRAINTS

Unclear image will not give accurate results.

## ~~6. CUSTOMER CONSTRAINTS~~

## 5. AVAILABLE SOLUTIONS

Traditional systems of handwriting recognition have relied on handcrafted feature and a large amount of prior knowledge.

## Explore AS, differentiate

## 2. JOBS-TO-BE-DONE / PROBLEMS

J&amp;P

People can struggle to read others' handwriting. The handwritten digits are not always of the same size, width, orientation as they differ from writing of person to person, so the general problem would be while classifying the digits.

## 9. PROBLEM ROOT CAUSE

~~back story behind the need to do this job?~~

The issue is that there's a wide range of handwriting - good and bad. This makes it tricky for programmers to provide enough examples of how every character might look.

## 7. BEHAVIOUR

BE

~~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)~~

Customers must try with  
clear image and neat  
handwriting to get accuracy  
in digits.

Focus on JEP, tap into BE, understand RC

### ~~3. TRIGGERS~~

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

#### ~~4. EMOTIONS: BEFORE / AFTER~~

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.

3. When there is need for recognition of handwritten digits.

## ~~10. YOUR SOLUTION~~

It uses Artificial Neural Network to recognize them. Neural Network is used to train and identify written digits. After training and testing, the accuracy rate reached 99%. This accuracy rate is very high.

## 8. CHANNELS of BEHAVIOUR

## 8.1 ONLINE

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

## 8.2 OFFLINE

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

## 8.1 ONLINE

## Extract online channels from behaviour block

CH

Extract online & offline CH of BE

# LTAMA

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

identify strong TR & EM



tribution-Non...

4 EMOTIONS: BEFORE / AFTER  
frustration, exhausted >  
curious, satisfied

8.2 OFFLINE  
Extract offline channels from  
different handwriting styles

