

1. CUSTOMER SEGMENT(S)

CS

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

Our customers are the patients who are suffering from liver disease. Especially occurs due to the large amount of alcohol consumption. Currently, the liver related diseases are identified by analyzing liver function blood test reports and scan reports. It takes more time as well as expensive. The disease needs to be diagnosed in the early stages itself for better treatment at affordable costs.

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.

The problems which we have encountered are

Accuracy --- The model should acquire required accuracy because it involves the risk of life of human beings.

Identify --- There are different kinds of liver disease and so our model should be able to predict all kinds of liver disease.

Risk Involved --- The model should be able to predict the level of risk that the patient currently have due to the diagnosed disease.

Application interface should be friendly, website crashes should be avoided.

3. TRIGGERS

TR

---People want to make their life easier, use it anywhere and anytime.
---Now-a-days web application is the one which is easily accessible as they don't like to download lots of app in their mobile.
----cost effective

4. EMOTIONS: BEFORE / AFTER

EM

---People find it difficult to trust the predicted results. So, our goal is to work on accuracy and change it.
---People will feel easier to access the application and can be able to diagnose the liver disease in their house itself and can ensure security of their records.

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.

Patient does not know the early symptoms of liver disease.

---Proper internet connectivity is required

---Must read the guidelines for effective usage

---User must enter appropriate details for accurate results.

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

In earlier days, there is a traditional approach to diagnosing liver disease by using algorithms like

- Naive Bayes Classifier
- Support Vector Machines
- Back Propagation Neural Network
- Decision tree
- Random tree and so on.

Prediction of liver disease in the early stages can be done by regular full body checkups.

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 root cause of the problems is

--- Acquiring proper dataset is difficult.

--- Parameters used for the training and testing the dataset should be able to predict any kind of liver disease and risks involved if the person is diagnosed with the particular disease.

--- The model may require more real-time data to improve its accuracy and so there may be uncertainty in the predicted result at the start of the app released.
We also have problems like hospital inaccessibility, inexperienced professionals and expensive fee.

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)

----- People may stop using the application if the predicted results are not appropriate.

----- People may also try to use applications which have better response speed.

----- They avoid to use the predictors if it is not user-friendly.

----- Regular health body check-up

10. YOUR SOLUTION

SL

Our solution to solve this problem is to develop

----An application which is accessible from anywhere at any time using their mobile/laptop/tablet.

----Try to develop the application with more accuracy.

----Try to develop the application with as many as features possible to give more benefits to the consumer.

---- Data preprocessing and visualization methods to increase accuracy

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

----People may be able to access the application in the browser from anywhere at any time.
----Advertise about the application with influencers to promote the application.
----Searching online for symptoms and treatments.

8.2 OFFLINE

--- Word of mouth among consumers (especially doctors).
--- Booking appointments in hospitals