Solution-Fit Template

Project Title: Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

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

Diabetic patients who diagnosing for Diabetic Retinopathy and ophthalmologists.

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.

Take more time and effort.

Insufficient experts.

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

Ophthalmologist manually diagnosing DR from fundus images.

It demands a high level of expertise and effort.

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.

Slow diagnosing of Diabetic Retinopathy.

The number of people with diabetes is increasing drastically, while the number of ophthalmologists is disproportionally low.

9. PROBLEM ROOT CAUSE

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.

Due to Diabetics.

Lack of health awareness.

7. BEHAVIOUR

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)

They need to find a experts ophthalmologists who can diagnosis Diabetic Retinopathy in short time and minimum cost.

They should take treatment in the initial stage.

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

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.

After facing health issues.

Somehow came to know about risks of not diagnosing it.

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.

8. CHANNELS of BEHAVIOUR — CH

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.

Identify strong TR & EM

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: Depression, fear, no confidence.

After: Back to his normal happy life.

By developing a Deep Learning model using CNN for accurate DR detection in a short time and minimum cost without the need of ophthamologists.

Online: They can understand about the workings.

Offline: High resolution of the retina lesions will be given to the model for detection.

Identify strong TR & EM