Project Title: Virtual Eye - Life Guard for Swimming Pools to Detect Active Drowning

Project Design Phase-I – Problem Solution Fit

Team ID:

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1. CUSTOMER SEGMENT(S)

CS

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

Lifeguards frequently attend in-services that guarantee they are on top of their life-saving skills. However, we need to remember that, as an operation, it is just as important to make sure lifeguards know how to handle guest situations with great customer service and compassion.

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.

Best pulse rate sensor is used to detect the pulse rate of every swimmer it helps to prevent for drowning accident.

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

We will detect the drowning person using yolov3 and deep learning algorithm for using pulse rate detection for predicting the drowning accident at earlier stage.

PROS : Predict the person before drowning under water.

CONS : If network is not available then it doesn't give a result.

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 facility closed the pool and installed a new air ventilation system in hopes of fixing the air quality issue that was causing the lung disease.
- Yet, when the pool re-opened, the lifeguards' symptoms returned. It turned out that the problem wasn't coming only from the air quality, but also from toxins in the pool water itself

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?

- The main problem is an alert is being sent to lifeguard only after the person is drowned down.
- However, they cannot save a person before drowning down.

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)

- Supervising swimmers.
- Saving people life.
- Take effective action in emergency situation.
- Giving advice on water safety.
- Attentive and energetic.

3. TRIGGERS

TR

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

1. Detect the pulse rate of swimmer.
2. Send an alert message to the lifeguard.
3. Helpful for earlier prediction of drowning.

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 : The Detection of active drowning they were many drowning accident worldwide.

AFTER : Save the drowning person after he/she is drowned drown by sending an alert to lifeguard.

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.

It is a computer vision detection system for the prevention of drowning incidents in swimming pools.

Our object recognition software tracks the movements of all swimmers in a pool. And in the event of a serious drowning incident, it will provide an alarm to pool lifeguards. This will help lifeguards improve their reaction-time, as they initiate a rescue.

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.

8.1 ONLINE

- Accurate pulse rate detection

8.2 OFFLINE

- Unaccurate pulse rate detection