Empathy Map Canvas

Diabetic Retinopathy Detection System

WHO are we empathizing with?

Target Users: Healthcare professionals (ophthalmologists, GPs, optometrists), diabetic patients, medical diagnostic centers, and rural healthcare workers with limited specialist access.

WHAT do they need to DO?

- Screen large numbers of diabetic patients efficiently
- Detect diabetic retinopathy at early stages
- Provide quick, accurate diagnosis results
- Track patient screening history and make informed treatment decisions

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WHAT do they SEE?

- Long waiting times for specialist appointments
- Limited ophthalmologist availability in rural areas
- High volume of diabetic patients needing regular screening
- Manual retinal image analysis is time-consuming and subjective
- Growing adoption of AI in healthcare

WHAT do they SAY?

- "We need faster screening methods to handle patient volume"
- "Early detection can prevent blindness in diabetic patients"
- "Access to specialists is limited in our region"
- "Manual screening is subjective and time-consuming"
- "We need consistent, reliable diagnostic results"

WHAT do they DO?

- Conduct regular fundus photography for diabetic patients
- Manually analyze retinal images for DR signs
- Refer patients to specialists for confirmation
- Maintain patient screening records and schedule follow-ups

WHAT do they HEAR?

- WHO guidelines recommend annual DR screening for diabetics
- Success stories of AI in medical diagnostics
- Concerns about AI accuracy and reliability
- Research on deep learning in ophthalmology

WHAT do they THINK and FEEL?

Pains: - Overwhelmed by patient volume - Concerned about missing early-stage DR - Frustrated by limited specialist availability - Worried about diagnostic accuracy

Gains: - Confident in early detection capabilities - Satisfied with efficient screening process - Relieved by reduced workload - Empowered to make quick decisions

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KEY INSIGHTS

1. **Accessibility Gap:** Limited specialist availability creates need for automated screening
2. **Time Pressure:** High patient volume demands efficient diagnostic tools
3. **Early Detection:** Critical for preventing irreversible vision loss
4. **Trust Factor:** Healthcare professionals need reliable, explainable AI results

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SOLUTION ALIGNMENT

Our AI-powered system addresses these needs by providing instant DR classification, enabling non-specialists to perform screening, reducing specialist workload, offering accessible web-based interface, and delivering confidence scores for transparency.