EMPOWER MEDICA

A patient-oriented solution
to medical misdiagnoses

THE MISDIAGNOSIS EPIDEMIC

- Misdiagnoses can be broken down into delayed, incorrect or missing diagnoses
- **1 in 10** patients with heart disease, infections or cancer are misdiagnosed
- **4.4%** of all patients suffer **major complications** as a result of it

Source: https://pubmed.ncbi.nlm.nih.gov/37460118/

PROBLEM: BIAS FACTOR

- Women are **50%** more likely than men to receive an initial misdiagnosis after a heart attack and are less likely to be prescribed medicines to reduce the risk of a second attack (1)

- Major depressive episodes are very well documented in females and are reported twice as much than in males globally yet suicide rates are higher in males (2)

> “Sex-stratified medicine is a fundamentally important, yet understudied, facet of modern medical care.”
>
> NATURE JOURNAL

Sources:
(1) www.nature.com/articles/d41586-021-02085-6
(2)https://pubmed.ncbi.nlm.nih.gov/37460118/

PROBLEM: FRAGMENTED CARE

- Fragmented care occurs when there’s a disconnect between the healthcare providers you visit

- While electronic health records exist, lack of attention to detail in notes creates room for misunderstanding and assumptions

- A clinician-based study reveals that the top-ranked problem for misdiagnoses was poor communication between secondary and primary care.

Source: Source: https://pubmed.ncbi.nlm.nih.gov/37460118/

SOLUTION

EmpowerMedica leverages trustworthy medical LLM models to assist users at different stages of their healthcare journey. The platform aims to address users' unique needs before and after medical appointments, providing personalized and factual support.

Start chatting!

Are you feeling anxious about an upcoming appointment? Should you go? Go on our site or app and start typing about whatever is eating at you.

Build a rapport

As you talk, you'll have the chance to both ask and answer questions. The purpose of this is to eventually put your thoughts into meaningful words.

Generate your flashcard

Whenever you feel comfortable with ending the conversation, the AI will process the discussion and generate a flashcard to take with you to the appointment.

USER GROUPS

Initial appointment

Individuals are on the brink of seeking healthcare, providing a comforting chatbot conversation.

Flashcards for:

- Symptoms to mention
- Queries about condition
- Plan of care details to fill in

Poor experience

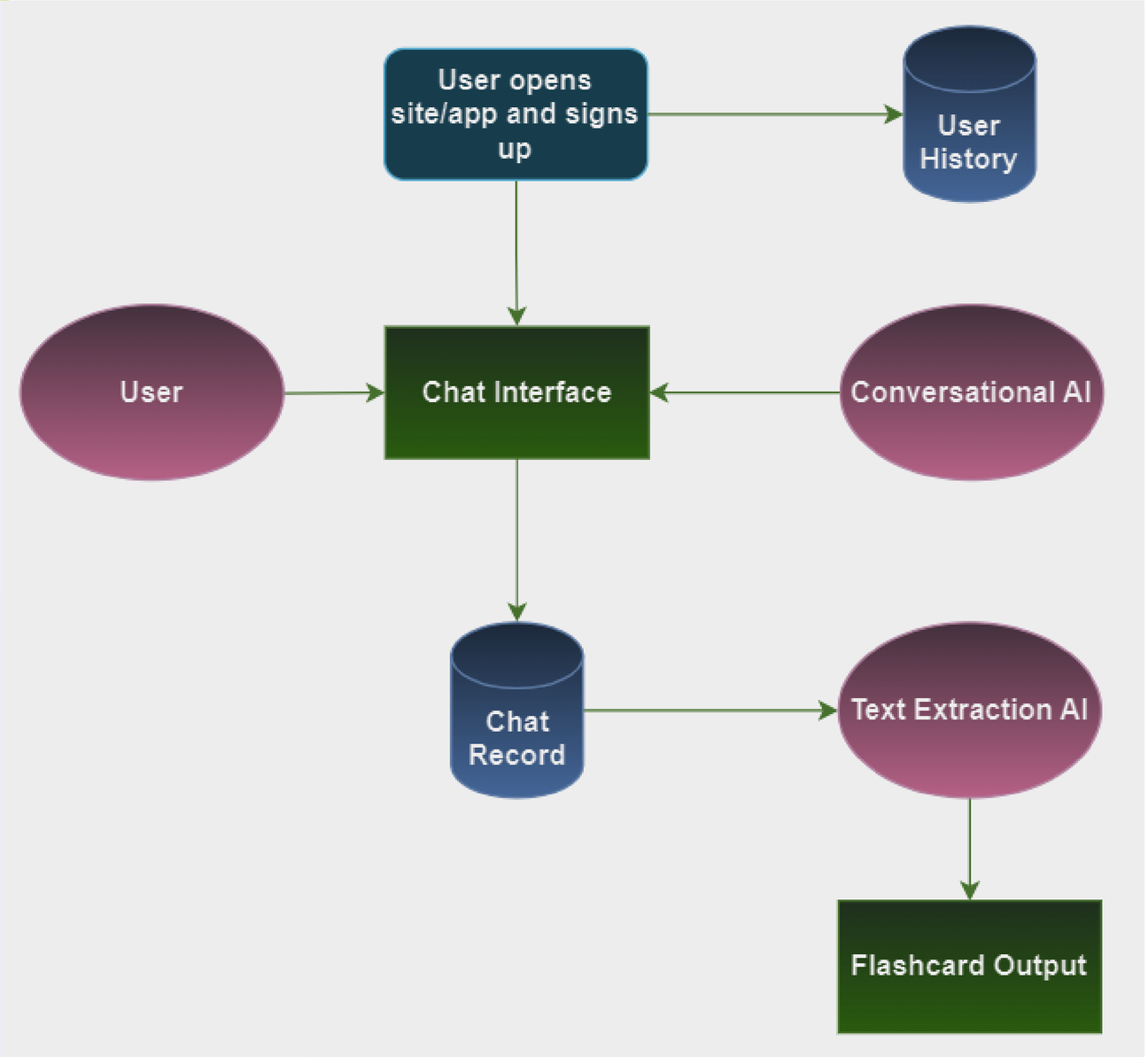
Patients dissatisfied with their previous medical treatment(s)

Service includes:

- Explaining medical conditions in-depth
- Providing links to communities of similar patients who’ve suffered
- Tests and hard questions to ask 2nd opinion doctor

HOW IT WORKS

- Two-model approach for patient support.
- Model 1: Conversational LLM: Gathers details through natural interaction.
- Model 2: Flashcard LLM: Analyzes transcripts, extracts key info, and creates summaries.
- Benefits: Improved data, accurate summaries, and clear communication.



DR.GOOGLE

- **Limited Reassurance:** Studies show two-thirds of users find online health information **unsettling** rather than reassuring.

- **Source Verification Challenges:** Older demographics struggle more to distinguish between **reliable and unreliable** online health sources.

- **Overall Positive Impact:** Despite these concerns, GPs generally view "Dr. Google" as a **positive force** for promoting patient understanding and fostering better communication during consultations.

Sources:
(1) https://pubmed.ncbi.nlm.nih.gov/22187092/
(2) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6169945/

WHY NOW?

- **Growing Medical Mistrust:** The recent anti-vax movement highlights a decline in trust towards doctors and science, creating a fertile ground for misinformation.
- **Negative Dr. Google Effects:** Unreliable online information further fuels mistrust and hinders effective communication.
- **Rise of Trustworthy AI:** Advancements in fair and reliable medical AI models present a unique opportunity.
- **EmpowerMedica's Feasible Solution:** Our trustworthy AI solution tackles misdiagnosis and bias, addressing current healthcare concerns.

Thank You

for your attention

Here’s to a more reliable future in healthcare