

MedScribe

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The Problem

— Diversity

Clinical trials are not representative of the general population

— Inaccessibility

There are too many barriers preventing specific demographics from participating

— Legal Jargon

Non-english speakers struggle to understand the legal language used in these documents

Target Audience



Example 1

Clinical trials are mentally exhausting with no liability coverage.



Example 2

Clinical testing on your child in a completely foreign language

Our Solution

- Translation
- Simplified Text Summary
- Electronic Signature
- FAQ chatbot
- Text to Speech

The screenshot shows the MedScribe Translation interface. At the top, there are five buttons: TRANSLATE, FEEDBACK, SIGN, MedScribe, LOGIN, and CHATBOT. Below this is a green header bar with the text "ABOUT US". A central text box states: "WELCOME TO MEDSCRIBE! WE ARE HAPPY TO BRIDGE THE DIVERSITY/LANGUAGE BARRIER GAP IN CLINICAL STUDIES BY PROVIDING OUR USERS WITH THE ABILITY TO EASILY TRANSLATE THEIR CLINICAL TRIAL DOCUMENTS. AFTER UPLOADING THE OUTPUT BOX BELOW SHOWS ORIGINAL TEXT, TRANSLATED TEXT, AND A TRANSLATED SUMMARY." Below this are two buttons: FILE and UPLOAD. To the right of these buttons is a large input area divided into three sections: "EXAMPLE ENGLISH TEXT", "EXAMPLE OUTPUT LANGUAGE TEXT", and "EXAMPLE OUTPUT LANGUAGE SUMMARY".

The screenshot shows the MedScribe Chatbot interface. At the top, there are five buttons: TRANSLATE, FEEDBACK, SIGN, MedScribe, LOGIN, and CHATBOT. The main area features a conversation between a user and a bot. The user asks, "Could you explain the symptoms that may arise from nerve damage?" The bot responds with: "A Neuropathy refers to damage or dysfunction of one or more nerves, often resulting in various symptoms depending on the type and location of the affected nerves. Chemotherapy-induced neuropathy typically affects the peripheral nerves, which are nerves outside the brain and spinal cord. Symptoms of neuropathy can vary widely from person to person but may include:
1. Numbness and tingling: Patients often describe sensations of numbness, tingling, or pins-and-needles in the hands, feet, fingers, or toes. This can be persistent or intermittent." Below the response are several buttons: "Make Response Shorter", "Explain it to me like a lawyer", "Tell me about more", and "Regenerate response".

The screenshot shows the MedScribe Electronic Signature interface. At the top, there are five buttons: TRANSLATE, FEEDBACK, SIGN, MedScribe, LOGIN, and CHATBOT. On the left, there is a PDF document titled "CONSENT FORM FOR PHARMACEUTICAL RESEARCH STUDY". It contains text about the study's purpose and participant rights. On the right, there is a large rectangular area containing a handwritten signature.

DOWNLOAD PDF

Design Process

Systems Thinking

- Low Recruitment --> Longer Trials
- Ineffective Medicine --> Less diverse recruitment

Positionality

- Ease of Access
- Empower marginalized groups to participate --> improved treatment

Design Justice

- Marginalized groups don't always react the same way to treatments
- Linguistic model - Time Saving

Sustainability Assessment

- Mutual benefit
- Saves paper and time from printing translated documents

Stakeholder analysis

- Trial Conductors and Participants

Inspiration and Ideation

Second generation immigrants

- Free + Easily Accessible
- Build out a translation feature
- Simplify legal jargon

Challenges

- Google Translation API Integration
 - GCLI locally instead of website
 - Combined different tutorials
 - Made a new account
- Front-end Back-end Integration
 - Integrating output to display correctly

Market

Competition

Datacubed Heath

- PAID!! English only

No translation or
summary offered

Current Solutions

- Google Translate
- ChatGPT

Plan

Work with Research
facilities to provide
access to MedScribe

Implementation

Collaboration

The objective is to
establish partnerships
with universities, health
centers, clinics, and
hospitals.

Incentives

Researchers need diverse
demographics to be willing
to participate. Due to
mutual benefit, funding
will be easier to obtain.

Expansion

Include a fully
operational chatbot as
well as ink signature
upload onto the pdf itself

Next Steps

- Passing IRB review (Accuracy and safety testing)
- User authentication system
- Feedback form
- Electronic signature input