

MatchPret

Alex Wu

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INTRO

Hospital stay is unpleasant, there are emotional pressure affected by physical health status. In addition, that is amplified when patients are unable to express their need and be understood.

Problem

Many current hospitals rely on untrained staff, or a patient's relative or friend, even at hospitals with established interpreter programs. Physicians and hospital staff often ignore hospital policies on using qualified interpreters, typically because of time pressures, lack of knowledge about the availability of interpreters or procedural difficulties in arranging for them.

Why it matters?

In 2013, approximately 61.6million people in the United States speak a language other than English at home and over 41 percent (**25.1 million**) have limited English-language skills that considered Limited English Proficient (LEP).

Research demonstrates that the use of unqualified individuals results in increased medical errors, less effective patient-clinical provider communication and poorer follow-up and adherence to clinical instructions, as well as possible conflicts with patient privacy rights. The presence of a readily accessible, qualified language services workforce is necessary for a high-quality program.

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Use of Interpreter Services in U.S. Healthcare Settings

Of patients who say they need an interpreter, percent who report they “always or usually” get some form of interpreter assistance		48%
Usual interpreter method was:		
Staff member		53%
Friend or family member		43%
Trained medical interpreter		1%
<small>*Survey results from patients</small>		

25.1M

LEP (limited English Proficiency)

Objective

I began my thesis journey by understanding how current system works. What's the existing solution. What works and what doesn't?

The objective was to advance accessibility to professional language services by minimizing coordination in order to adapt to the patient's language and cultural preferences to facilitate more accurate communication that goes beyond literal translation and ultimately elevates their experience.

PROCESS

To understand the problem more clearly, I approached to patients and doctors to observe and understand what the entire process that patients will go through and how do doctors interact with patients. What are the exciting solutions care providers have when they encounter communication problems with patients?

Target Audience

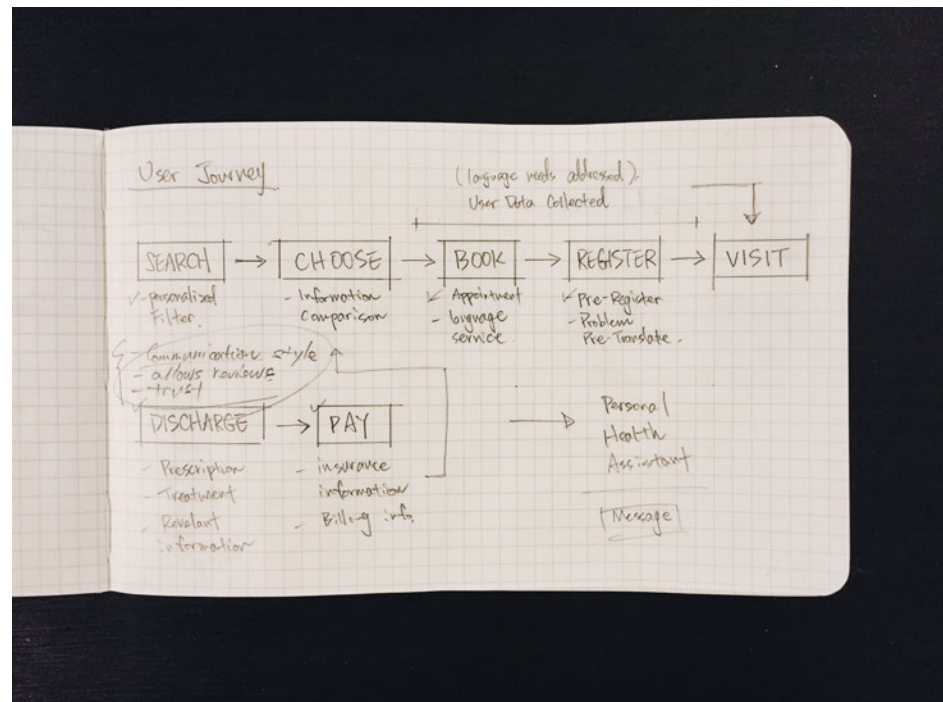
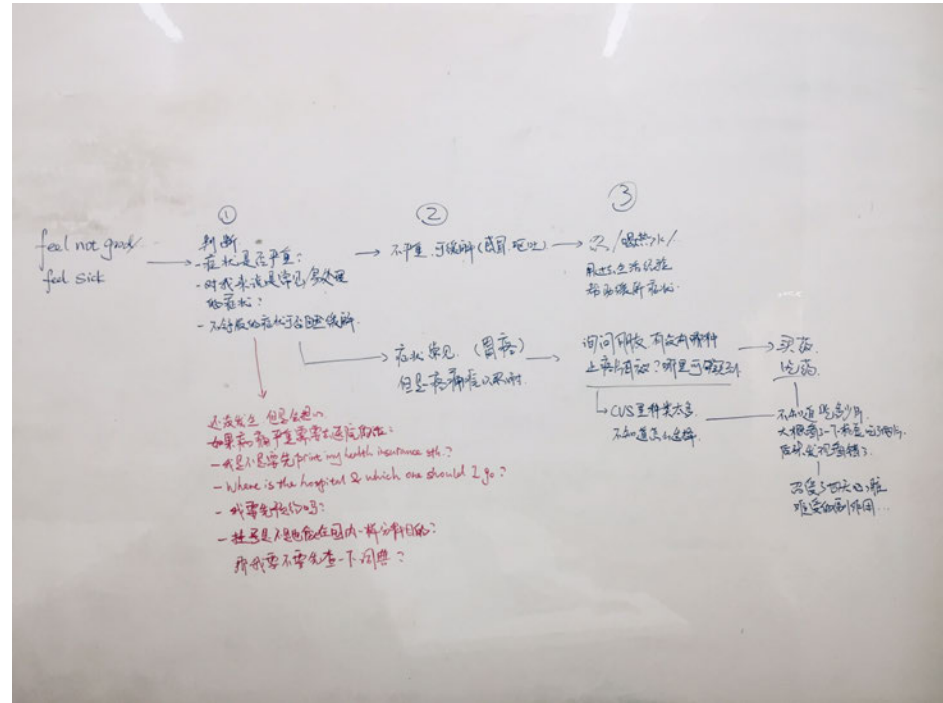
I went to Flushing, China Town and Elmhurst to understand how do patients look for help. I interviewed with Chinese patients while they are one of the fastest growing demographic groups in the United States.



Patient User Journey

I draw out the user journey map to identify different situation that patient will encounter while their time in hospital, also before and after hispital visit.

I decided to focus on on-site scenarios to have deeper research on what can facillitate more accurate communication between patients and care providers.



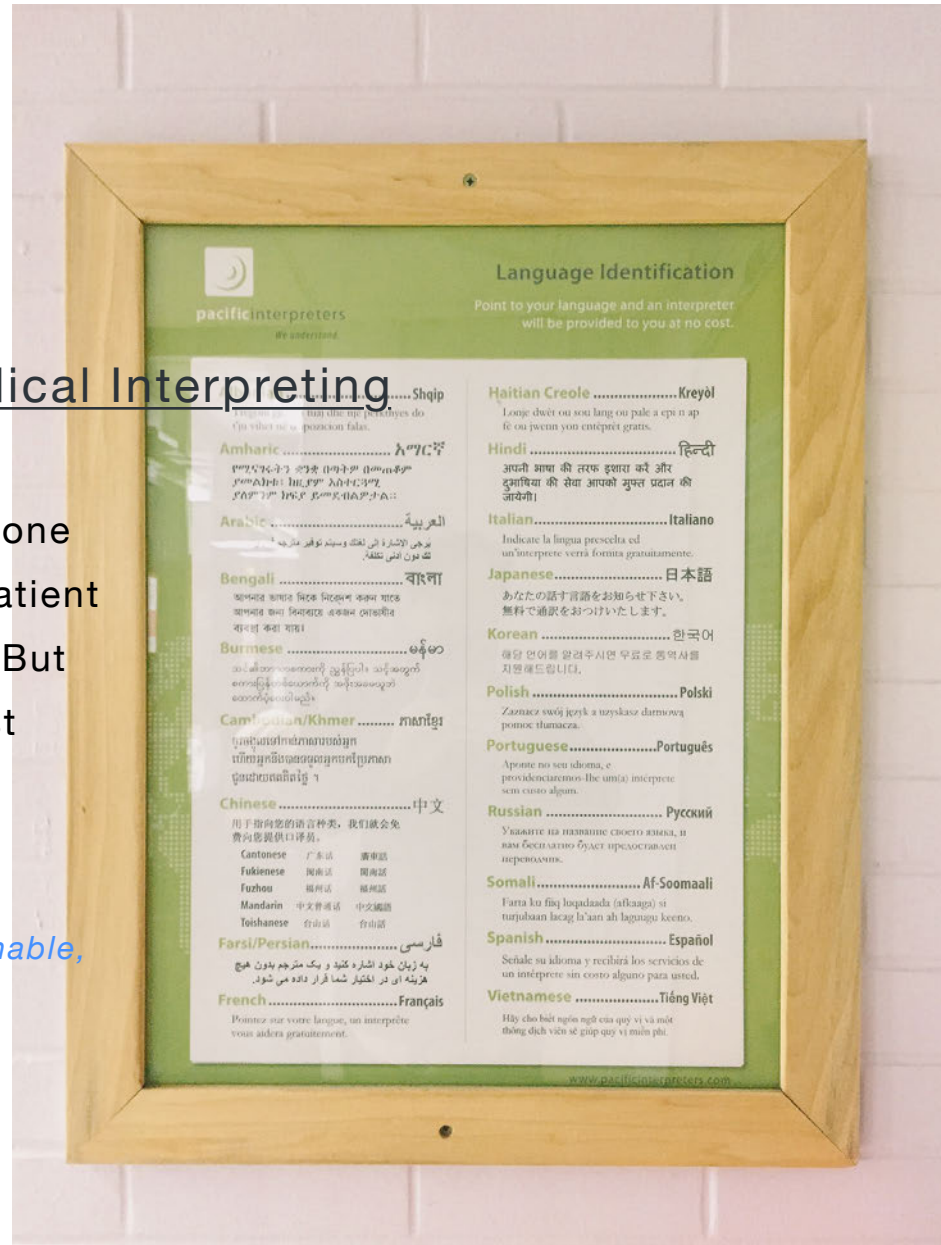
Exiting solutions

Telephonic, Video, In-Person Medical Interpreting

Many hospitals and doctors turned to a phone service and now toward to video. Where patient can quickly get help in several languages. But the on-site medical interpreter still the best choice by far.

“Onsite is so much more direct, fast, clear, personable, hence easy. It is always the first choice, by far.”

- Jean P., Medical Intrepreter



User Needs

Patients:

- Feel comfortable to express the needs
- The needs to be communicated and be addressed
- Accurate translations

Nurses & Physicians:

- No other effort to use the service
- A bridge to accessibility
- Not a barrier to arrange

Interpreter:

- Medical interpreting training
- Context

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WHAT I LEARNED?

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Learning



SOME HOSPITALS USE FAMILY MEMBERS FOR INTERPRETING

Patients usually ask their family members or friends to help. So that family members will need to take a day off in order to take them to hospital. Due to the lack of medical knowledge, family members or friends cannot guarantee the accuracy of the translation, even leading to misdiagnosis and increase in the risk of worse medical event.

Learning



PHONE INTERPRETING IS NOT PERSONABLE

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Many hospitals and doctors turned to a phone service. Where patients can quickly get help in several languages. But people who work for those language services often aren't certified medical interpreters. And patients would have to use it every time at every corner for communicating. They have to wait for the care team to dial the number, call forwarding and wait for interpreter to answer.

In addition, patients might lose 50% of sound to start with, then add equipment quality, background noise, distance of speakers from the speakerphone... and it even worse when elderly patients don't hear very well.

“There is an awkward moment while dialing to interpreter in front of the patient.”

- Sameer, Physician

When I was observing in a small clinic, I tried the phone service by myself. It’s kind of awkward that I have to speak to doctor by phone when he just in front of me. And doctor hate it as well.

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Learning



IN-PERSON MEDICAL INTERPRETER IS THE BEST CHOICE BY FAR

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In-person interpreting is so much more direct, fast, clear and personable. It provides patients with more humanized care and can discover the nuance of patient's emotion. Especially when patients are in a sensitive situation, for example: in the end of life situation, you have to talk with patient or patient family in person with professional training.

But because of time pressures, lack of knowledge about the availability of interpreters or procedural difficulties in arranging for them, physicians and hospital staffs underuse qualified onsite-interpreters.

**THERE ARE 21.5M PEOPLE
WHO DON'T SPEAK ENGLISH.**

**THERE ARE ALSO A HUGE
COMMUNITY OF TRAINED
MEDICAL INTERPRETERS BUT
50% OF THE TIME THEY ARE
JUST WAITING FOR DOCTORS
AND ENCOUNTER MANY
MISMATCHES**

**WHAT IF PATIENTS CAN
ARRANGE MEDICAL
INTERPRETERS BY
THEMSELVES BEFORE
THEY GO TO HOSPITALS?**



Prototypes

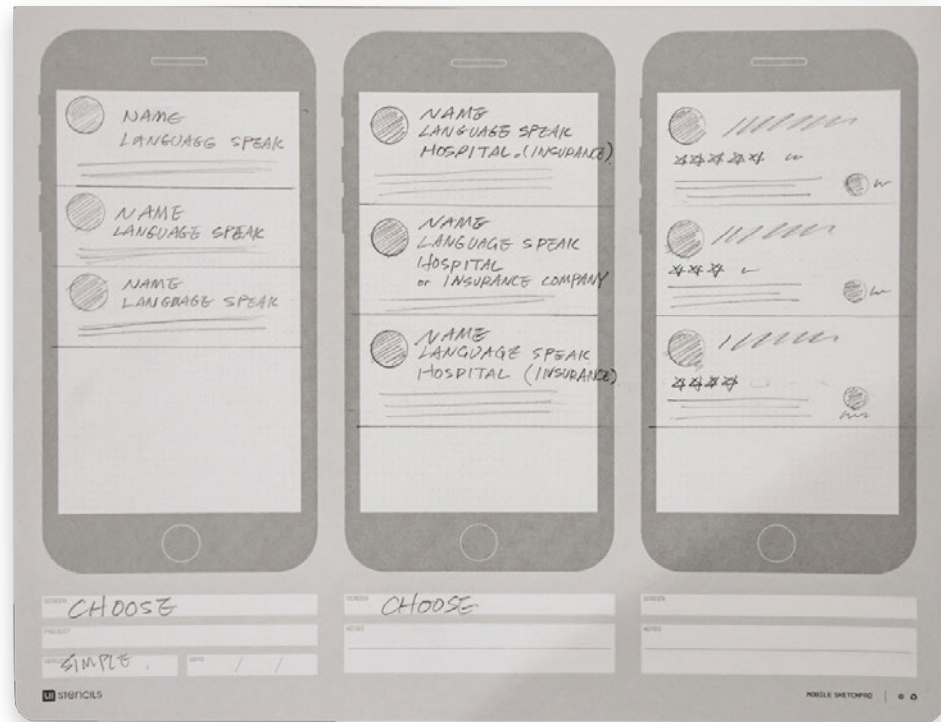
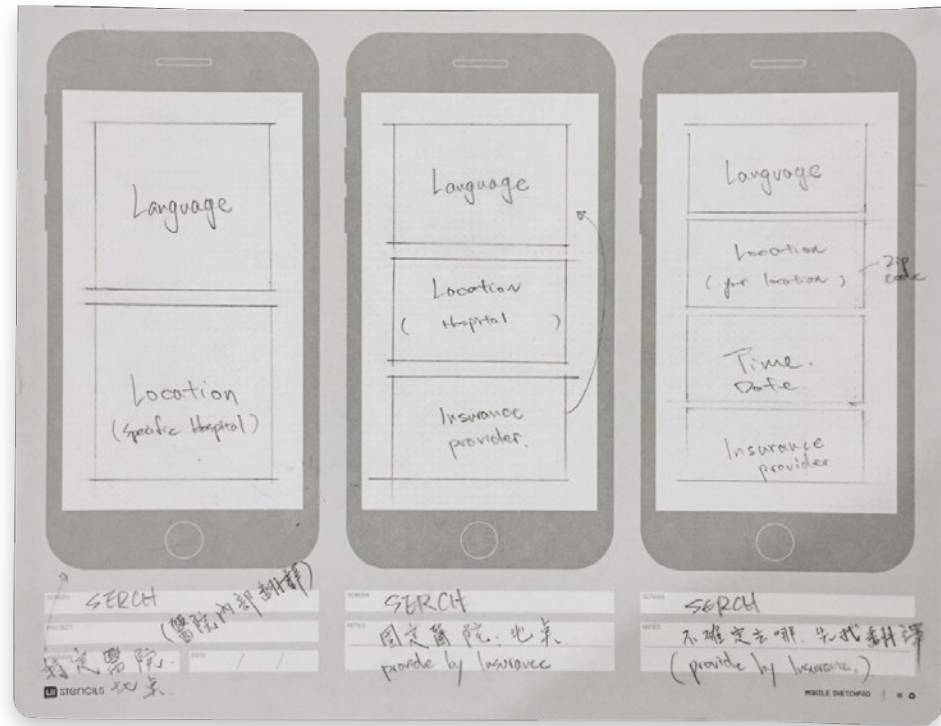
To test my concept, first, I made low fidelity prototypes base on ideal user scenario.

I prototype with patient and family members in order to see if my concept works and answer my questions to generate more conversations:

What do they need to know to find an interpreter?

What they care?

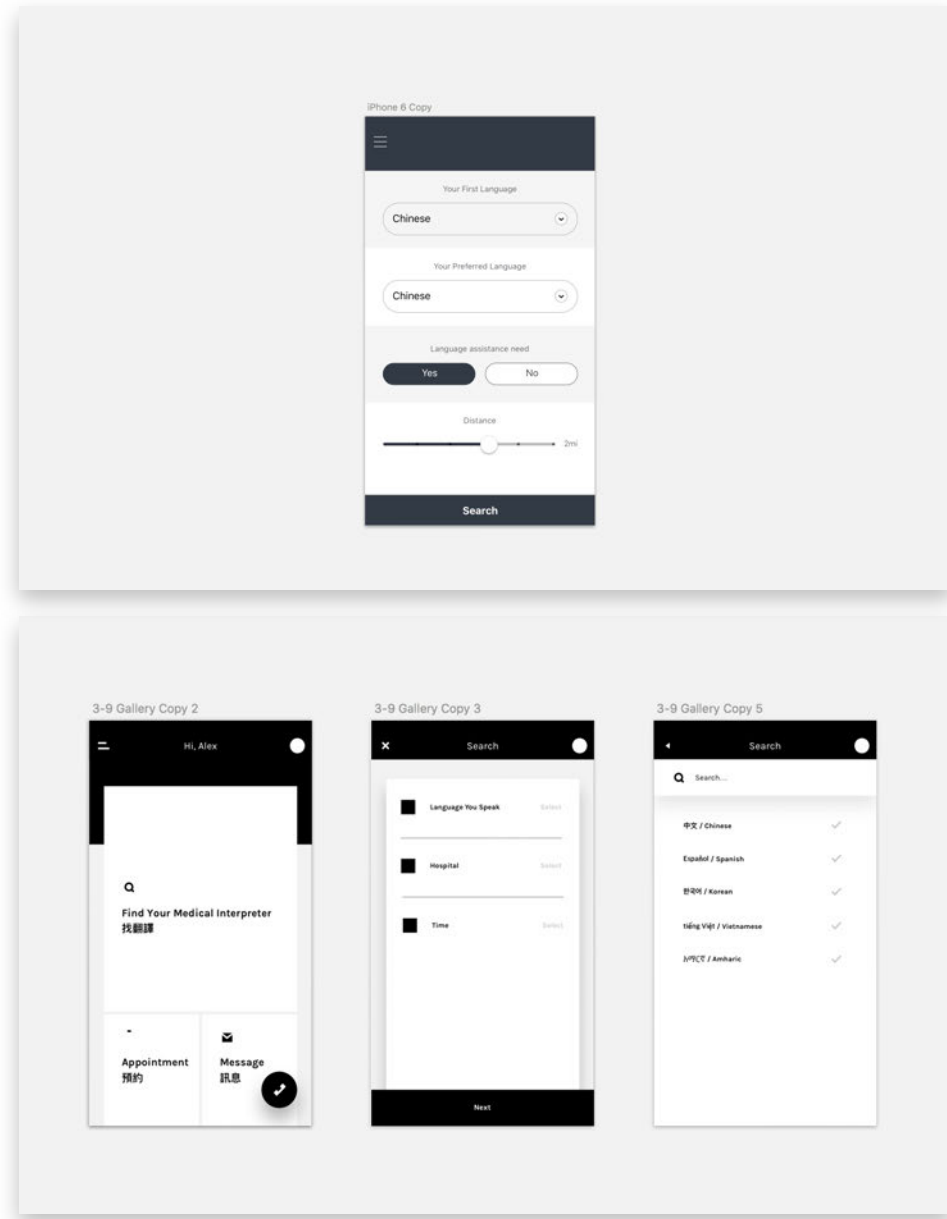
What's their relationship?



Prototypes

I made different versions to test with people to see what's their reaction and observe their behavior.

How could this fit in the current system and able to adapt their needs?



Prototypes

In order to make this successful, I made prototypes based on 3 core values that I identified as important to patients and family members. Which are Match, Trust and Relationship

I tested with users and modified the best patient to interpreter matches and figure out what creates trust between them?
How do patients build a better relationship to healthcare?



MATCH

Best patient to interpreter matches



TRUST

What creates trust?



RELATIONSHIP

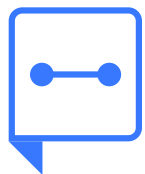
How do patients build a better relationship to healthcare?

INTERVENTION

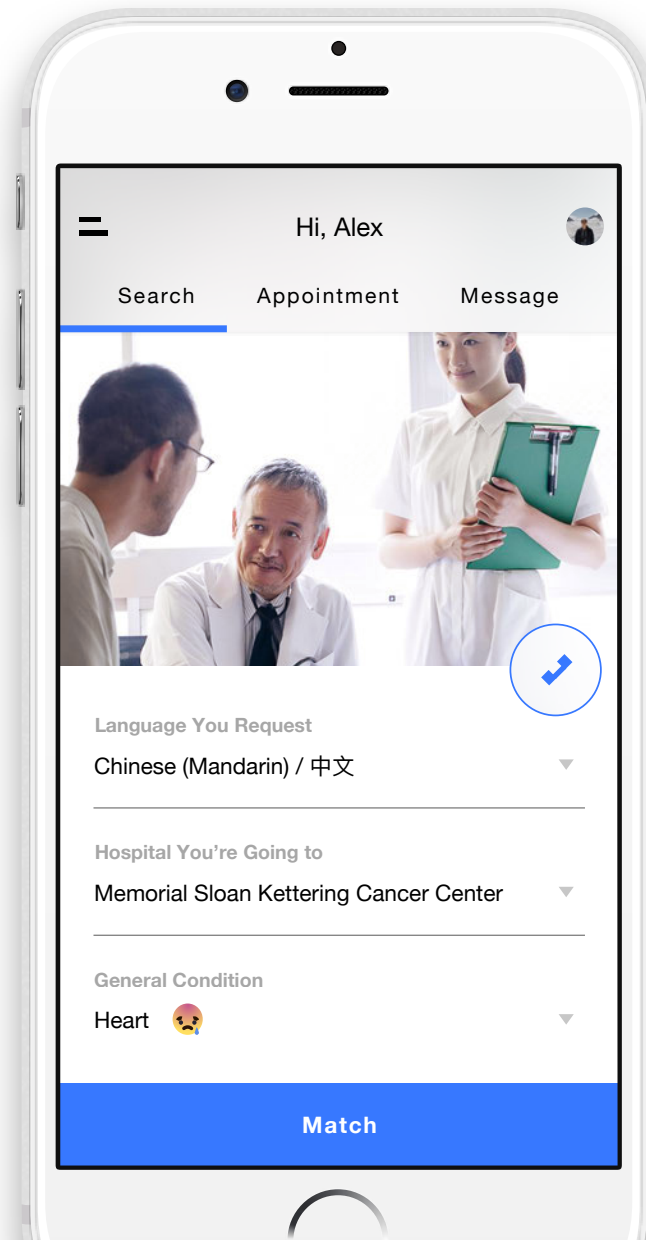
I designed MatchPret, a service that gives patients better access to professional language service for their hospital visits.

Interaction Prototype :

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MatchPret

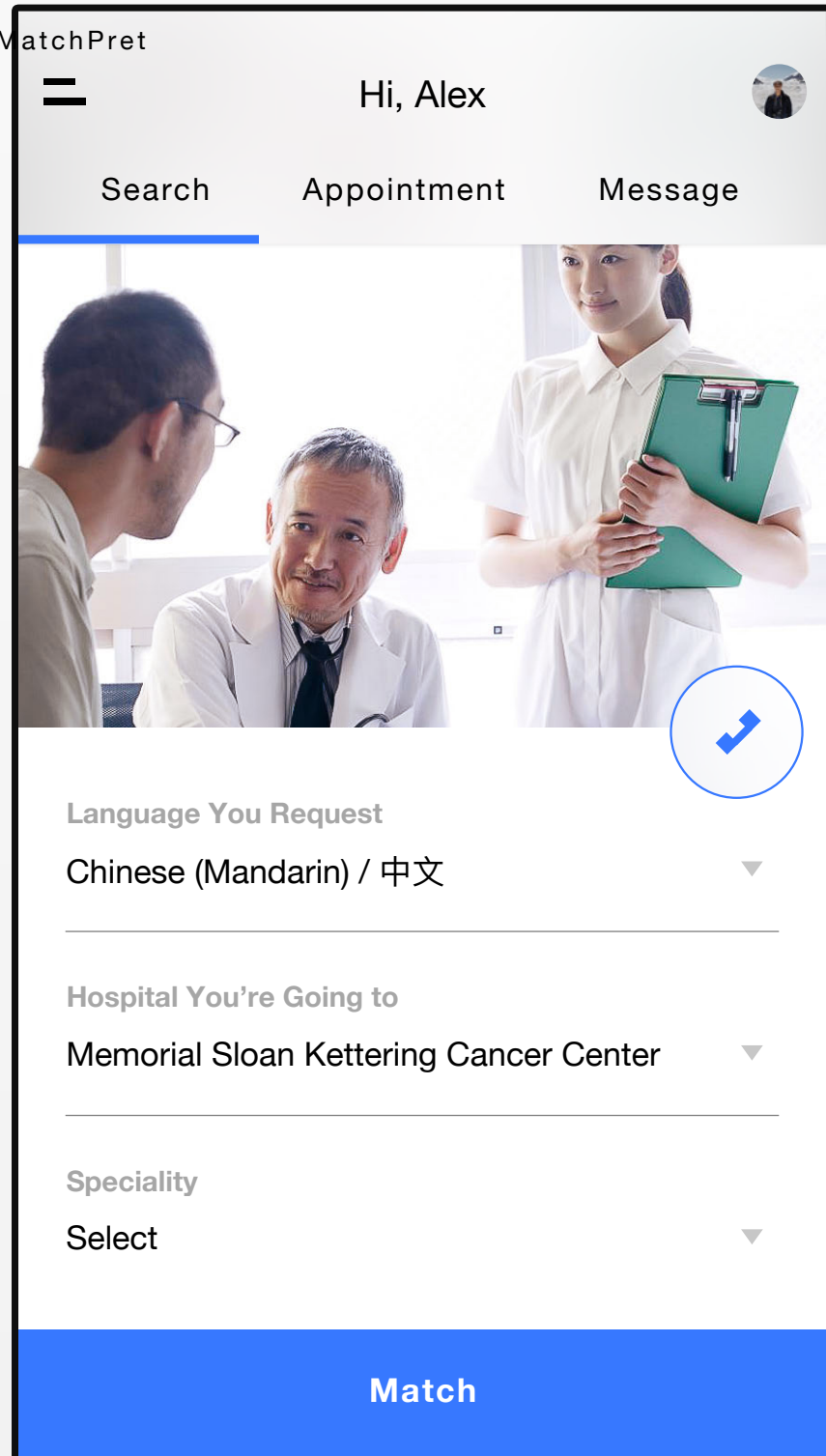


MATCH

TRUST

RELATIONSHIP

Here is how it works, assume that you are going to arrange an interpreter. You can first choose the language for displaying. Then you can filter by the language you are requesting, hospital you are going to, and speciality you need. If you need any additional helps, you can call the service directly.



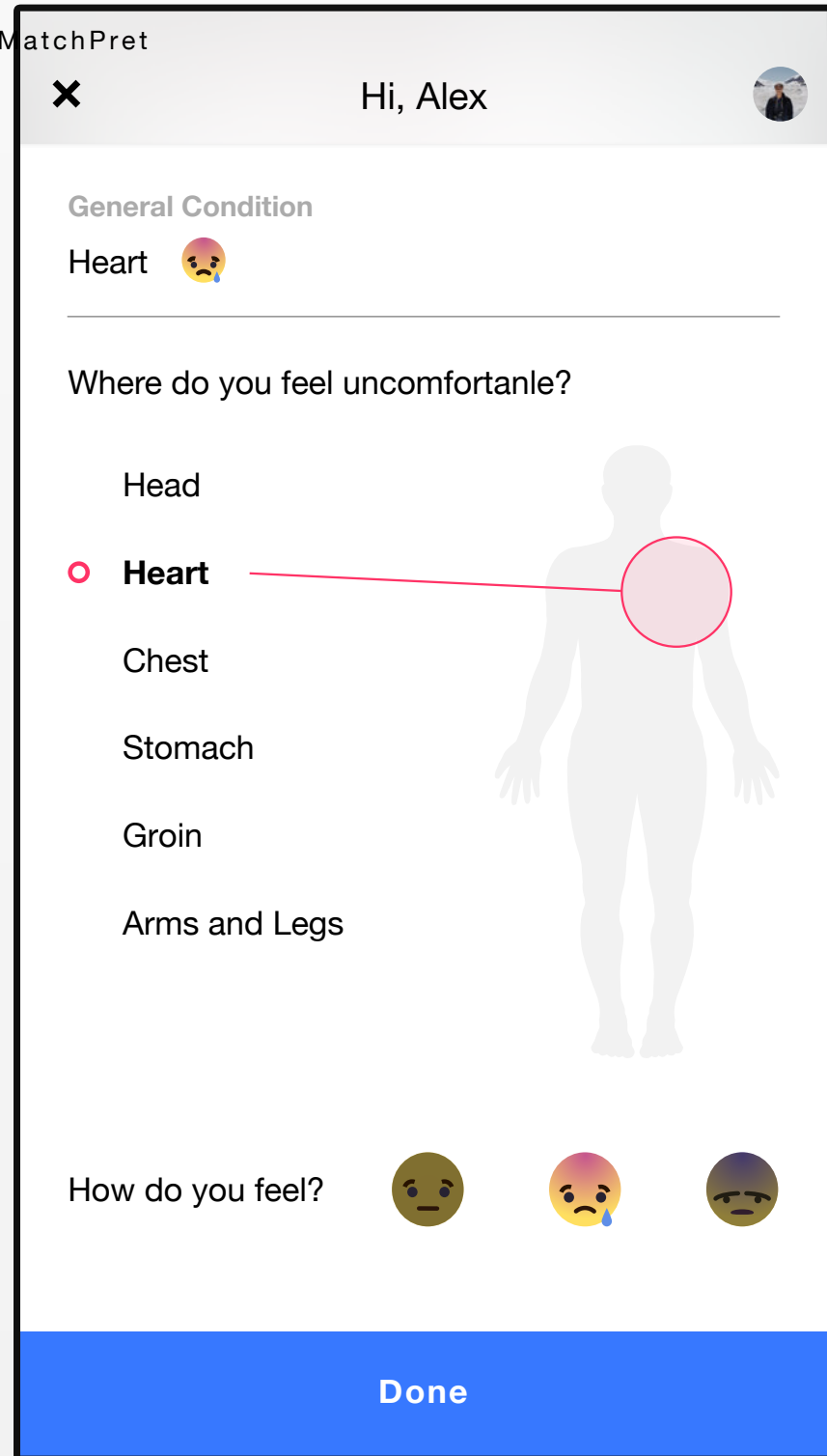
MATCH

TRUST

RELATIONSHIP

I learned from my prototype that many patients can't differentiate the speciality with medical terminology. So you can also address your general condition by indicating with body image and emoji.

In fact, it's critical information for interpreters to be prepared for better interpretation.



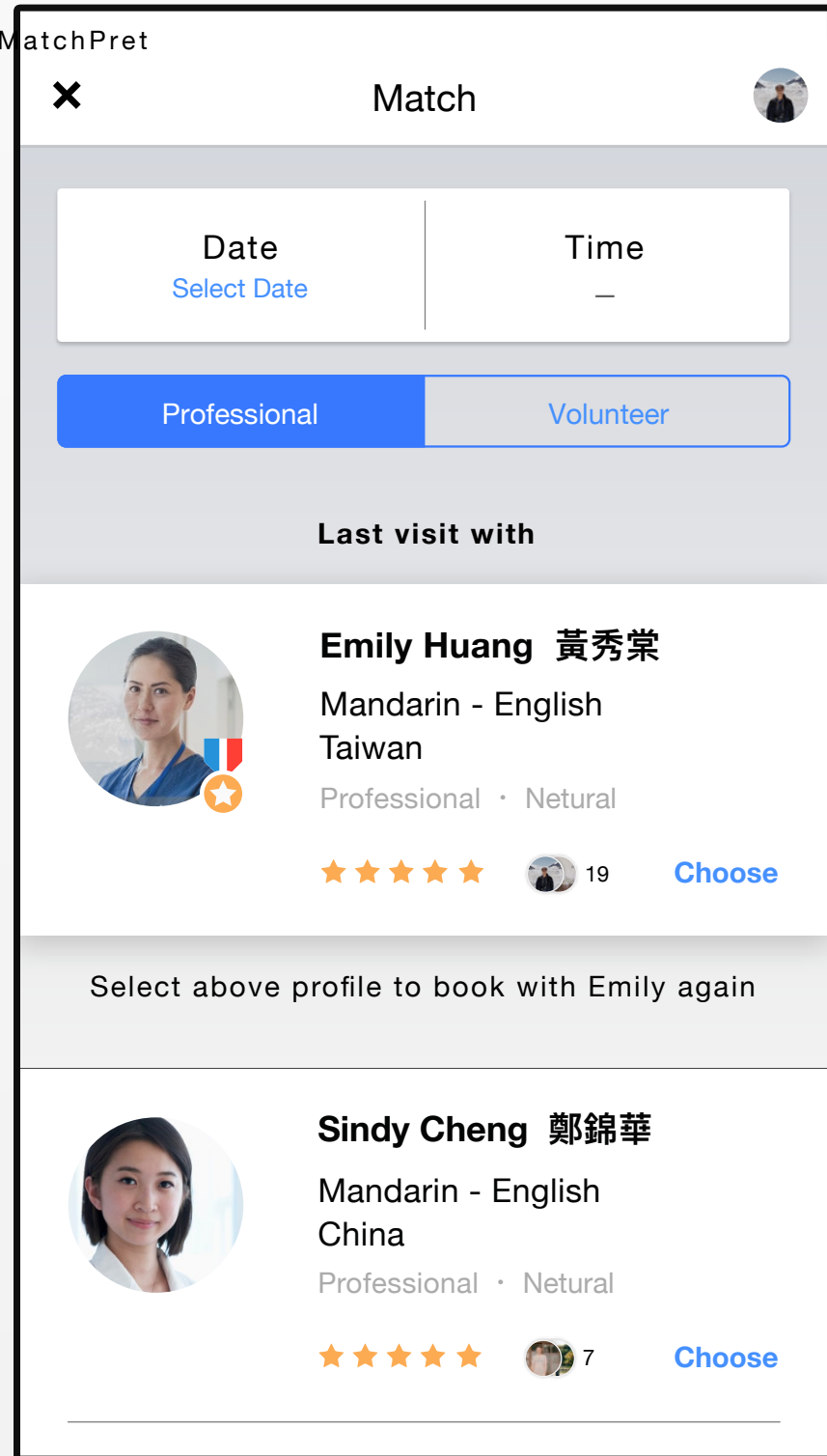
MATCH

TRUST

RELATIONSHIP

Next, you will match with interpreters that adapted your language and cultural preferences. It keeps the record, so you can find the same interpreter next time if you like them.

And you can see their ratings and choose either professional interpreter or hospital volunteer.



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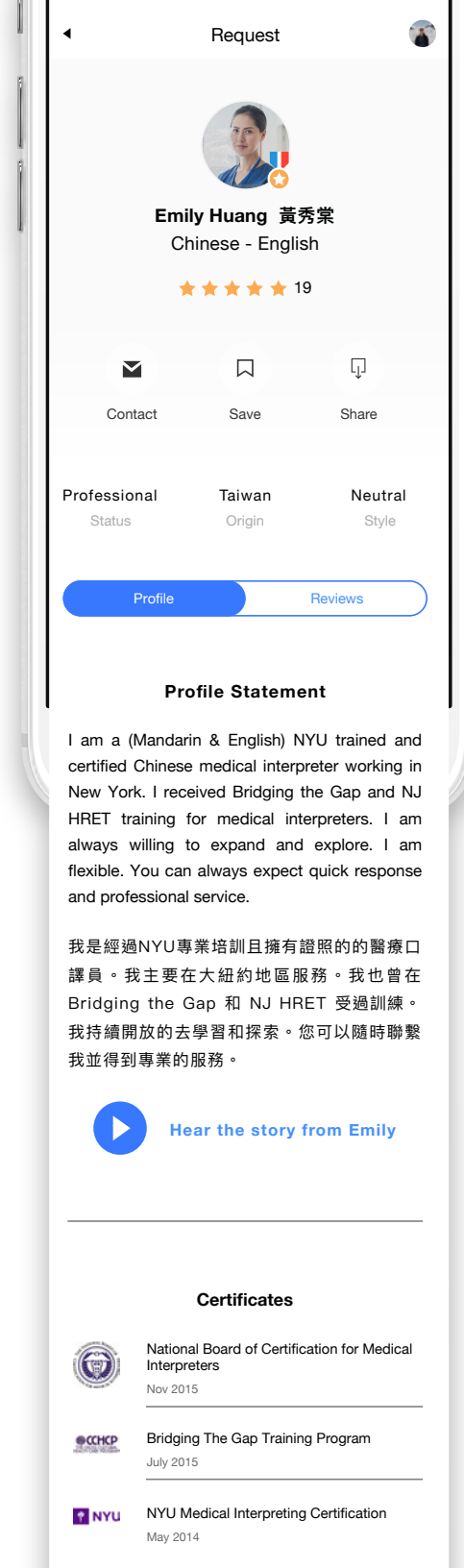
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MATCH

TRUST

RELATIONSHIP

When you choose an interpreter, You can compare them by seeing their profile statement and professional experience by hearing their voice and seeing their certificates.



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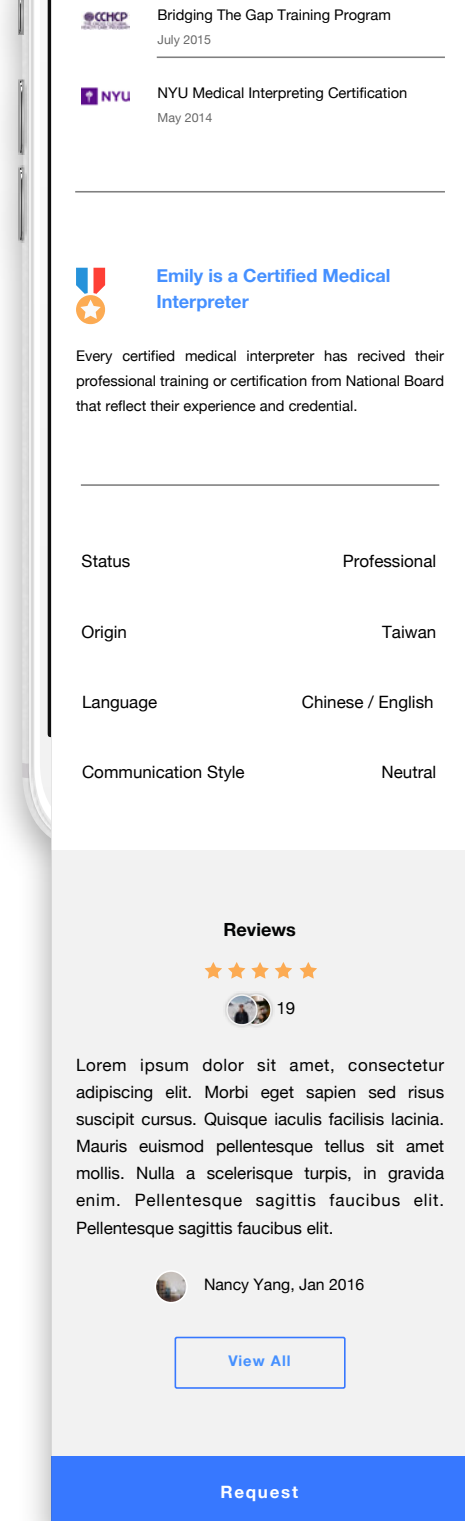
MATCH

TRUST

RELATIONSHIP

To create trustworthy experience, MatchPret will review the interpreters and provide credentials.

And you can also see people's reviews and their experience with interpreters.



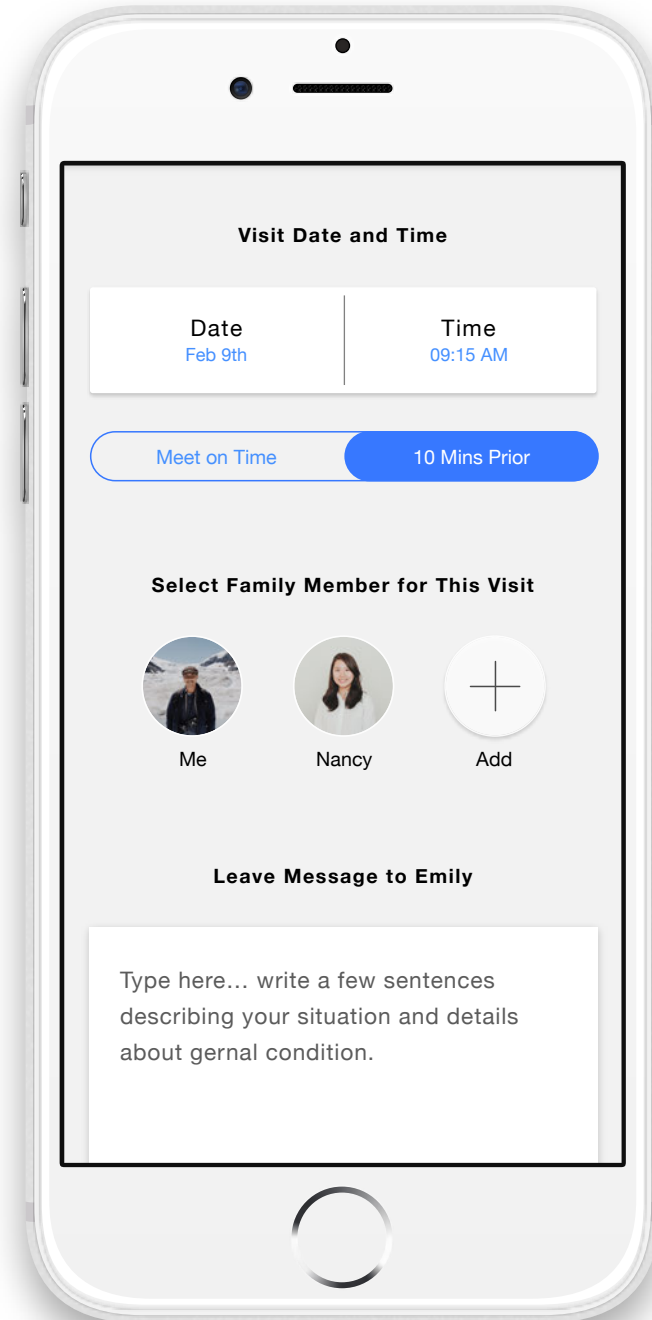
MFA DSI

● **MATCH**

● **TRUST**

● **RELATIONSHIP**

Before you send the request you can make sure when is your visit and select who is it for.



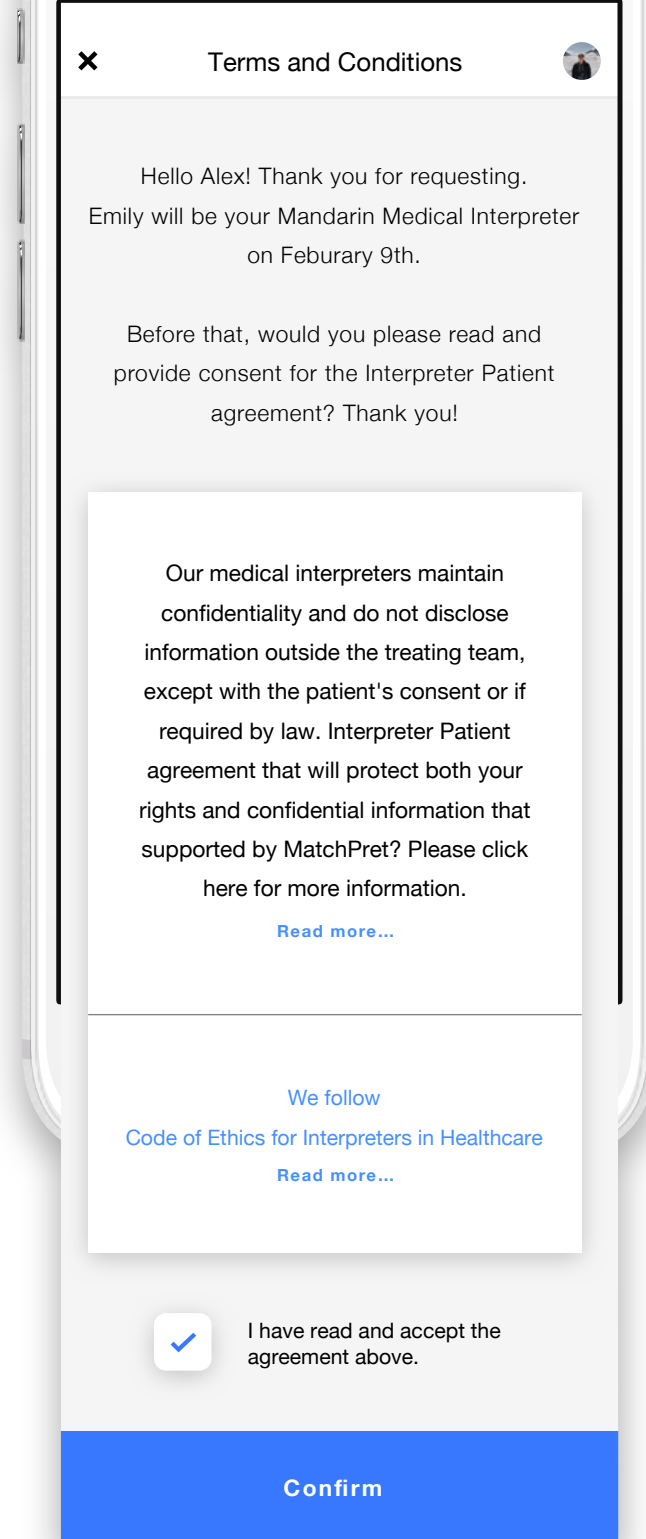
● MATCH

● TRUST

● RELATIONSHIP

You can easily build relationships with interpreters but too much personal involvement will create risk for both.

To find that balance, MatchPret provides an agreement to protect both patient and interpreter's rights and patient's confidential information.



User Testing

I did a pilot with 6 family members and 2 medical interpreters.

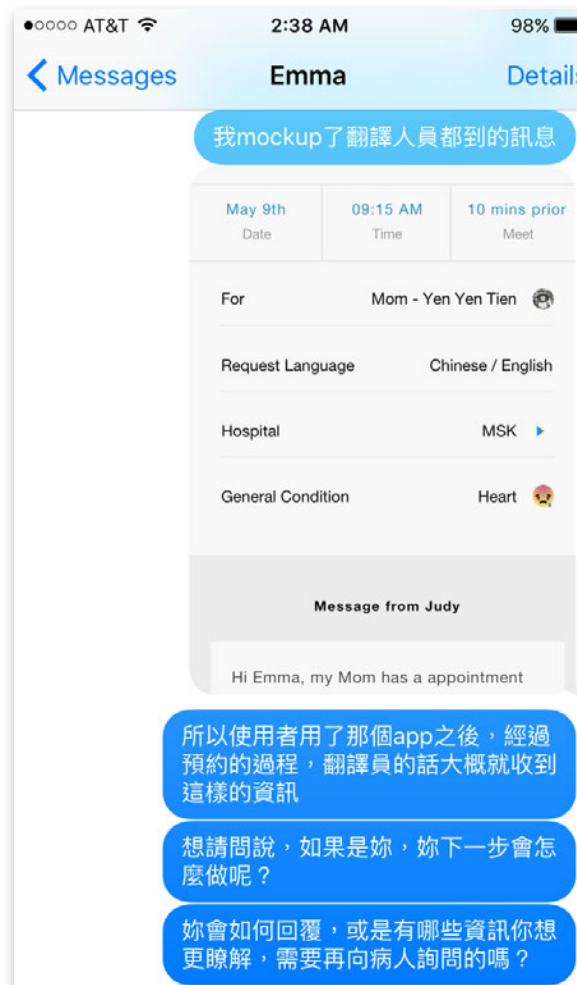
I provided users with interaction prototype and mocked up the scenario based on their experience and being the middle man to deliver the messages to see how do they interact with each other by using this and if it works for them?

6

Family Mmbers

2

Medical Interpreters



User Feedbacks

After using it, they all have great experience. They feel comfortable by using it to match interpreter, it provides a better way for them to find helps and think it's reliable.

Interpreters are interested in the new way of interaction between them and patients. Instead of be managed by agency, they can directly interact and communicate with patient that maintain their professional behavior.

However, interpreters are worried about how do patient get this, who will provide them?



“I WILL USE IT. IT’S EXTREMELY HELPFUL AND TIME-SAVING FOR OUR FAMILY.”

- Ivy, Patient Family Member



“IT’S GREAT TO CONFIRM THAT SOMEONE WILL HELP US IN THE HOSPITAL.”

- Judy, Patient Family Member

“I AND MY COLLEAGUE ARE BOTH LIKE THE CONCEPT. IT’S VERY FRESH. BUT WE ARE BOTH WONDERING HOW WILL IT SPREAD?”

- Emma, Medical Interpreter

User Feedbacks

I also approached professionals and managers in well known hospitals and interpretation agency to see if this idea can adapt the current system. Here is what they said to me:

“IT DIRECTLY CONNECTS INTERPRETER WITH PATIENT.”

- Medical interpreting trainer, Memorial Sloan Kettering Cancer Center

“IT WOULD BE AWESOME IF WE COULD PROVIDE THIS TO OUR CUSTOMERS... WOULD YOU BE ABLE TO BUILD THIS FOR US? CAN I HIRE YOU?”

- Mike, Interpretation Agency

“YOU SHOULD GO PATENT IT. IT HAS POTENTIAL AND COULD BE USED OUT SIDE OF MEDICAL SETTINGS AS WELL.”

- Manager, Memorial Sloan Kettering Cancer Center

CONCLUSION

Although I got many good feedbacks, It's just beginning. Taking this idea further, I am going to approach to more people to keep revising the service that able to be provided by agencies and hospitals in the near future.

Next Step

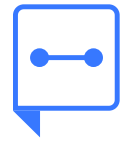
I would like to discover more possibilities that this service could provide. To navigate interpreter for emergency that it can be an efficient used for inpatient and can reduce the request cancellation loss.

Find best way to put it into the current system and able to connect all the resources to provide the access.



**ACCURATE COMMUNICATION
BETWEEN PATIENTS AND CARE
PROVIDERS IS FUNDAMENTAL FOR
DELIVERING QUALITY CARE AND
DEVELOPING TRUSTING
RELATIONSHIPS. —**

I believe MatchPret can push healthcare industry further to create an accessible language service and facilitate more accurate communication that ultimately elevates patient experience.



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