Tongues

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Problem & Solution

Problem: Communication across languages in day-to-day life.

Solution: Crowdsourcing accurate, real time translations with a tool that’s easy to use.
**Context Inquiry**

**GOAL:** Understanding how people currently interact across languages and how we can improve that.

*When and how do people speak the other language? What do they do when they are stuck on a word or expression?*

*How do they use existing tools like Google Translate?*
Participant 1 - Student Abroad

- Friend of a group member taking a quarter abroad in Paris.

- Mostly relies on herself and people around her to communicate. Light use of Google Translate.

“Motivated enough to bring my books, not motivated enough to open them.”
Participant 2 - Travels a lot

- Friend of a group member who has spent extensive time travelling in Europe.

- When hearing jokes in foreign languages, felt left out.

- Got laughed at when using certain words

‘‘When you don’t know a word, you gesture and you get creative. A dictionary is my last resort’’
Participant 3- Language Teacher

- German teacher at Stanford
- Best way to learn to **speak** is to practice and be around German all day
- Best way to learn to **read** is to going over lists and lists of words

“Google Translate? It’s bloody awful. Languages are so syntactically different.”
Participant 4 - Language Student

- Friend who is passionate about learning languages
- Uses Google Translate for words, not phrases.
- Thinks that classes don’t teach enough slang

“I don’t think classes teach you enough slang... the best way to learn is by speaking with native speakers.”
Context Inquiry - Results

Similarities:
- Users only use Google Translate for single words.
- Users had experience with jokes, slang, etc. that they had a hard time understanding.
Context Inquiry - Results

Differences:

- Language used in different context by user

- Different skill level in user’s respective language(s)
Who is going to use the system?
People who want to learn a new language and its more natural, colloquial usage, or people who are in a foreign country and want a translation colloquially accurate to their region.

What tasks do they now perform?
They try to speak in a foreign language, and they try to understand colloquialisms, slang, and informal language.

What tasks are desired?
Get small phrases translated quickly and accurately.

How are the tasks learned?
Intuitively through user interface.

Where are the tasks performed?
On the street, in a less formal environment, in a conversational setting.

What’s the relationship between customer and data?
Customers contribute to the data by adding source phrases that they want translated, and either writing their own translation or “up/downvoting” previous translation attempts.
Task Analysis (Part 2)

What other tools does the customer have?
The customer has the resources of Google Translate, online and physical dictionaries, and the people around them who may be bilingual and help out.

How do users communicate with each other?
Users don’t directly communicate, but they can ask for translations from other users and either translate or up/downvote past translations, contributing to our data set.

How often are the tasks performed?
Whenever the user needs something translated; whenever the user is trying to communicate through a language barrier. Whenever the user doesn’t understand an informal use of the language.

What are the time constraints on the tasks?
As close to real time as possible.

What happens when things go wrong?
Typically if a new speaker say something “wrong” then people laugh (not meanly) and correct them. We think that if something goes wrong with the app (they get a wrong translation) people will find a humorous way to interpret that, too.
Representative Task 1

Getting a quick translation of a word

Google translate

- Slow to use interface
- Need to select language from lengthy drop down
- No colloquialisms
Representative Task 1

Getting a quick translation of a word

Tongues
- Easy and quick to use
- One step translation (no drop downs)
- Suggests colloquialisms based on your location
Representative Task 2

Getting a quick translation of a sentence fragment

Google translate
- Slow to use
- Need to select language from lengthy drop down
- Can only accurately translate individual words
- No colloquialisms
Representative Task 2

Getting a fast translation of a **sentence fragment**

- **Tongues**
  - Easy and quick to use
  - One step translation (no drop downs)
  - Can accurately translate sentence fragments
  - Suggests colloquialisms based on your location
Representative Task 3

Completing quiz to practice vocabulary

**Paper Quiz**

- Requires effort & motivation
- No immediate feedback
- Requires a secondary source (textbook)
- List like display, looking at many things at once
Representative Task 3

Completing quiz to learn vocabulary

Tongues

- Less effort and motivation required
- Immediate feedback
- The app will display to the top results after given input
- One word at a time on screen, one thing to focus on
The Ideation Process
Application Idea 1

- Voice recognition
- User speaks the phrase they want translated
- Translator responds in real time via text
- The app reads out their text response verbally
Application Idea 2

- Text based translation
- User types out the word/phrase they want translated
- Translator responds real-time via text
- Region based language settings
Application Idea 3

- Text based translation
- User types in a phrase to be translated
- If a previous translation exists, returns that version
- If not, returns the Google Translate version and crowdsources a better translation for future use
Design Sketch 2
Design Sketch 3

- Select a region:
  - World
  - Map

- Choose a language:
  - French

- Translate
  - "Hello"
  - Suggestions:
    - Bonjour
    - Bonjour
    - Bonjour
    - Write your own:

- Search
  - Hello
  - search

- Bonjour

- Alex Wu
Summary

Tonges - A Comprehensive approach to communication across languages.

‘‘Breaking One Language Barrier at a time’’