*Title:*

# Real-Time Subtitles

*Subtitles:*

**Who is the Client?**
Our client, is hard of hearing and has difficulty understanding what the other person has said in conversations.

**Problem Statement**
She needs a non-restrictive way to translate the other person's voice to text, allowing for more natural conversations.

**Ideation**
After meeting our clients we were able to understand and prioritize her needs, then we got to the creative thinking phase. The two main ideas we were debating were an app and a physical device which we ended up going with.

**Target Specification**
Multiple Wireless Microphones (color coded) → will be beneficial to be able to transcribe each person to the device. Being wireless it will help with the mobility for everyone.

Use without Wifi → No matter where the client is, the client is able to use the product, and not have to rely on wifi.

Transcribe French and English → With the client being bilingual, it is beneficial for the product to be able to transcribe both French and English.

Functional → The client is able to use the product with little to no confusion.

**Metrics**

In order to make our end product more convenient:

- The system must operate for 8 hours on a single charge
- The weight of the device
- The charging port must always be accessible
- It must be able to turn on and display text within 20 seconds of activation
- Every option should be accessed with no more than 3 clicks

For our product to be more aesthetically appealing:

- All colours should be beige, grey, black or white
- The product should not show any exposed circuitry
- There must not be any flashing lights
- The device must be silent
- If there are microphones, they should fit within a 5cm cube

For our product to have a better usability

- The text must be visible for the client
- The user should be able to distinguish who is talking
- The device should display the text no more than 3 seconds after it was said

**Benchmarking**

Communication Access Realtime Translation (CART):

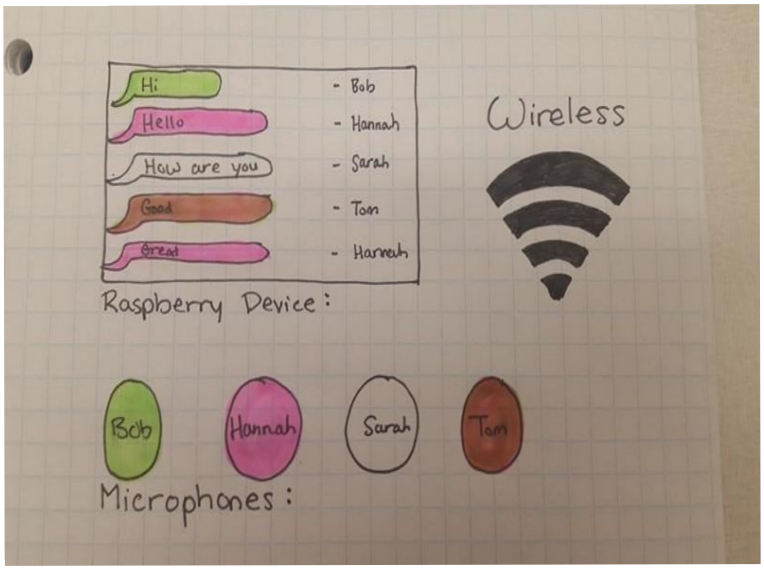
CART is a live word for word transcription of speech to text so that people who are hard of hearing can read (on a laptop) a script of what is being said in a group or at appointments.

Clients usually have to book CART transcribers. These are people who write spoken words into text using either a stenotype machine, notebook computer and real-time software. This text is then displayed to the client.

Q-System:

The Q-System is a live speech to text translator for the hard of hearing. The Q-System is a wearable device that displays text (from speech) on a screen/display and also helps graph emotions from the person currently talking to them.

*Pictures:*




**Business Model Canvas. What's Your Business:** Real-Time Subtitles

| Key Partners | Key Activities | Value Proposition | Customer Relationships | Customer Segments |
|---|---|---|---|---|
| Suppliers are required for resources.<br><br>Suppliers will be from Alibaba and Amazon. | The business needs to provide maintenance for the application and ensure delivery of the devices. | Our product allows customers to follow along in group conversations while allowing the conversation to feel natural.<br><br>Only the device will allow use of multiple microphones with our application, while the phone will support 1 microphone. | The customer relation is conducted with monthly meetings, to give our team a chance to ask questions in person. | The product is being created for hard of hearing customers, or people who have difficulty following along in group conversations. |
| | Key Resources<br>- Microprocessor<br>- LCD screen<br>- Microphones | | Channels<br>-The app will be on the play store<br>-The devices will be shipped | |

| Cost Structure | Revenue Streams |
|---|---|
| - Purchasing parts (microphones, screens, etc) from manufacturers<br>- Employees | - Selling device<br>- Free app on google play will have ads<br>- Paid app on google play |

**Constraints**

- ❖ Budget
- ❖ Time
- ❖ Recourses

## Who we are targeting

We are targeting people in North America who suffer from hard of hearing and would like a portable solution to improving their communication.

## Device features

- Text font and size is easy to read at a distance
- Transcribes the spoken conversation accurately
- Device displays the text in real-time
- Conversation is displayed like a chat app
- Multiple microphones that can be used by multiple people in conversation
- Device displays which microphone the text is coming from
- Can edit name of each microphone
- Device is portable
- Device works with French or English
- Easy for the client to use and change settings