

## WHO are we empathizing with?

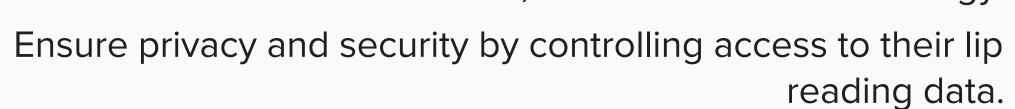
Individuals with hearing impairments who rely on lip reading as a method of understanding spoken language.

Caregivers, family members, and friends of individuals with hearing impairments who may benefit from better communication.



# What do they need to DO?

Engage with a lip reading system, whether it's a mobile app, wearable device, or other form of technology.



Calibrate or customize system settings based on their preferences and needs.

Learn how to effectively use the system and improve their interaction with it over time.

Maintain and update the system for optimal functionality and accuracy.



### What do they HEAR?

In the context of lip reading, individuals primarily rely on visual cues, so hearing may not be a dominant factor in this scenario.

However, they may hear ambient sounds or use auditory feedback (if available) from the lip reading system as an additional aid.

### What do they THINK and FEEL?

### **PAINS**

What are their fear, frustrations and anxieties?

Fear of misinterpreting lip

accurate technology for lip

Difficulty in understanding

speech without clear lip

movements and causing

misunderstandings.

Lack of reliable and

reading.

movements.



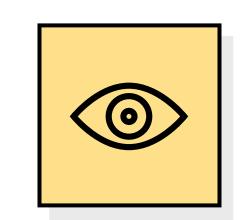
### **GAINS**

What are their wants, needs, hopes, and dreams?

Improved communication with others, especially in noisy or obscured environments.

Increased confidence in their ability to understand speech.

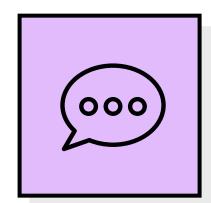
Access to a trustworthy and effective lip reading technology.



#### What do they SEE?

Visual input of the speaker's lips and facial expressions. Output text or visual representation of the interpreted speech generated by the lip reading system.

Potentially, the inclusion of sign language gestures or other visual cues for improved communication.



# What do they SAY?

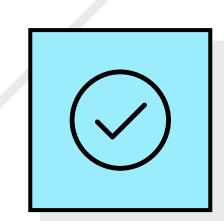
I struggle to understand what people are saying when their lips are not visible.

Lip reading can be really challenging, especially in noisy

I wish there was a more accurate and reliable way to interpret lip movements.

It would be great if technology could help bridge the communication gap for the hearing impaired.





#### What do they DO?

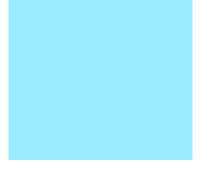
Actively engage with the lip reading system, either through a device or software.

Focus on the speaker's lips and facial expressions while using the technology.

Use gestures or feedback mechanisms to communicate with the system when necessary.

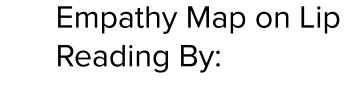
Adapt to different speaking styles and accents.











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