



WECO

JunctionX Seoul 2020 Hackathon

## Team Telepa-See

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# The Problem

## Background and Problem Definition

Since the outbreak COVID-19 pandemic, our work environment has shifted closer and closer to online. With technology, we have still maintained a level of productivity and settled into video conferencing platforms for remote work. While video conferencing ensures safety and productivity, we are still facing problems in creating an **inclusive society**.

Someone you may know cannot freely express themselves in a video conference just because they are incapable of **hearing, seeing, or speaking in another language**.

### What do we need?

We need a bridge that allows those with disabilities to voice like everyone else and a bridge that connects thoughts regardless of language barriers and where they come from.

### Proposal

We'd like to share with the world a service that allows everyone to equally participate in video conferencing sessions, thus creating an **inclusive society**.

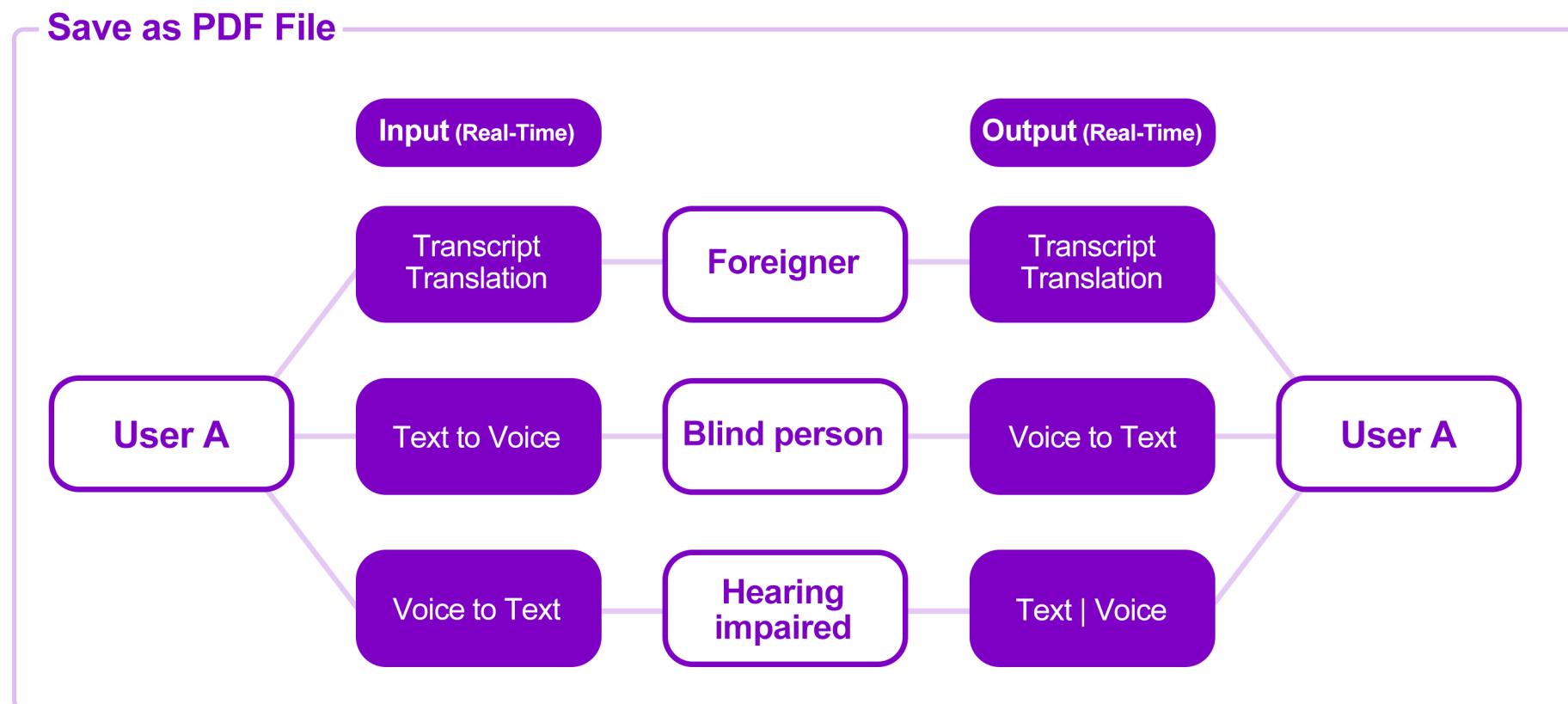


# The Solution

With **WECO**, our video conferencing software, everyone's voice can be bridged, heard, and echoed.

Everything we talk about in video conferences is updated in real-time with a translatable and exportable transcript, and anyone can send their message in "voice to text" or "text to voice" form and easily interact with other users.

We are delivering **inclusiveness** to those who are incapable of speaking, reading, or understanding in a video conferencing session.





# Technologies

**WECO** handles features mentioned above with Microsoft Azure Cognitive Services. In order to transcribe speech accurately from users into text, Weco implemented Speech to Text API and deployed this service on the Azure portal. On the other hand, in order to convert text to natural-sounding voices in the transcript, we used Text to Speech API. Lastly, Speech Translation API is used to implement the chat and transcript translation, providing a fair and equal opportunity for everyone in the world to communicate.

## Microsoft Azure Cognitive Services



Speech to Text



Text to Speech



Speech Translation



# Video

We tried visualizing our proposal.

weco connects everyone's echo

The video player interface features a dark background with three large emoji icons: a brown pile of poop, a white turkey with a red wattle, and a grey alien head. A large white play button is centered over the alien emoji. A callout line points from the text 'Click on the icon to see our video!' to the play button. In the top left corner, the 'weco' logo is visible. On the right side, there is a sidebar titled 'JunctionX Seoul 2020' containing a user list ('User (4)'), a 'Chat' section, and a 'Transcript' section which is currently selected. The transcript shows messages from users Dyno, Lask, Tim, and Tillo. The message from Dyno says, 'The topic of today's meeting is JunctionX Seoul!'. The message from Lask says, '무엇부터 시작할까?'. The message from Tim says, 'Maybe we should start thinking about what we are uncomfortable with. This way, we will feel better and start working together.'. The message from Tillo says, 'Great. Let's do that and have an incredible weekend!'. There are also download and search icons in the sidebar.

Click on the icon to see our video!

JunctionX Seoul 2020

User (4) Chat Transcript

Dyno 10:31 AM  
The topic of today's meeting is JunctionX Seoul!

Lask 10:31 AM  
무엇부터 시작할까?

Tim 10:34 AM  
Maybe we should start thinking about what we are uncomfortable with. This way, we will feel better and start working together.

Tillo 10:30 AM  
Great. Let's do that and have an incredible weekend!



# Logo

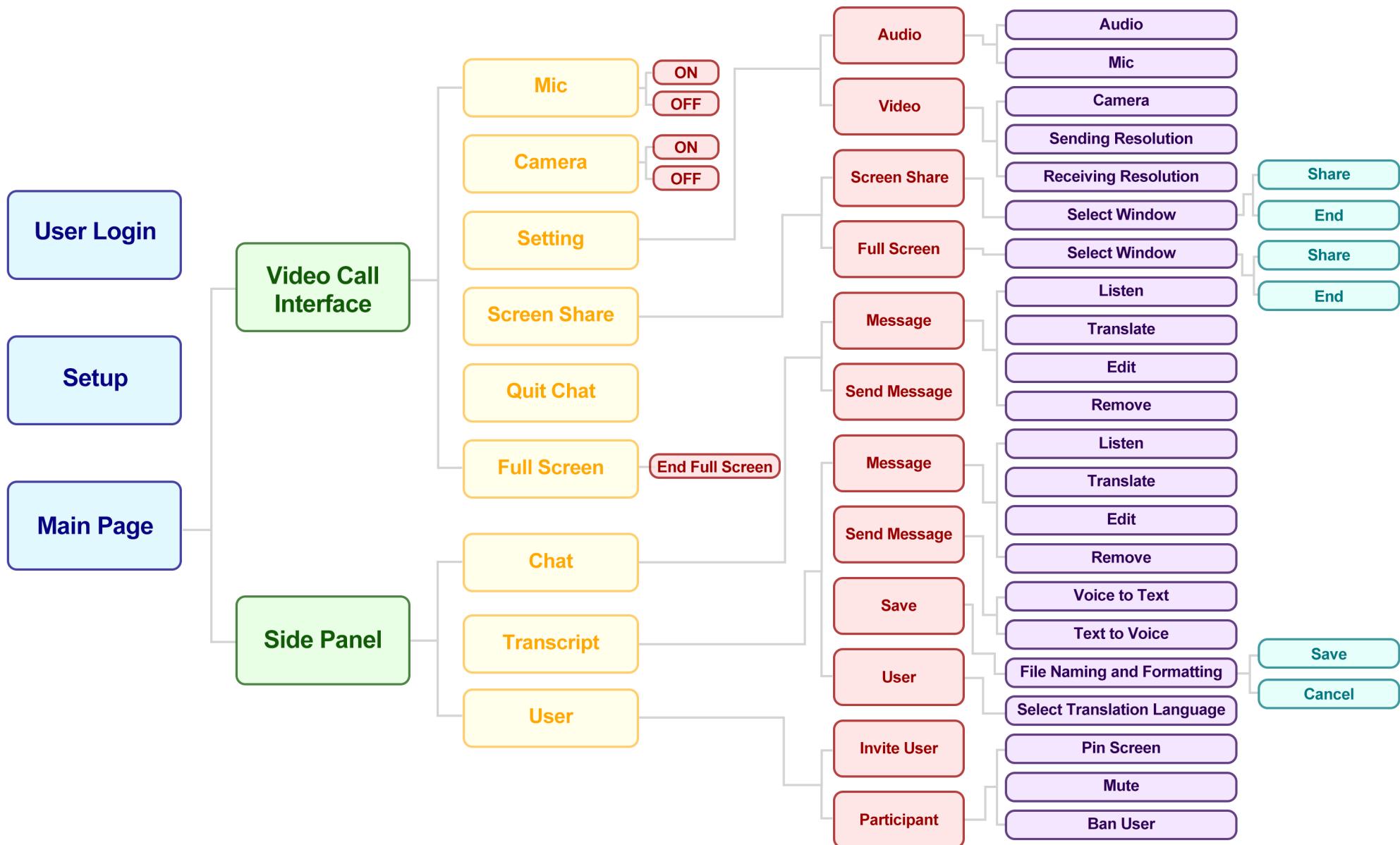
We are your bridge to an inclusive society.





# Flow chart

We've design a simple flow chart of the service.





# Prototype

## User Experience for Collaboration and Remote Productivity

As a product for efficient work, user flow must be designed simply to allow users to quickly access video conferencing. There are three main pages in the system: Login Page, Video Settings Page, and the Video Conferencing Page.

Firstly, a user is directed to enter the user's email and password to sign up and log in. Then, in the setting screen, the user can adjust the microphone and camera settings before accessing the video conference room. After adjusting the settings, the user enters the video conference room with the main functions on the screen: User List, Chat, and Transcript.

These elements are designed with icons on the right side of the screen so that users can intuitively recognize them. These icons are composed of three tabs that lead to sidebars and allow an easy switch to other functions. This flow allows collaboration with others to proceed more quickly and productively.



**Click on the icon to see our prototype video!**



Welcome!

Please login to access your account

Email

Password

**Sign in**

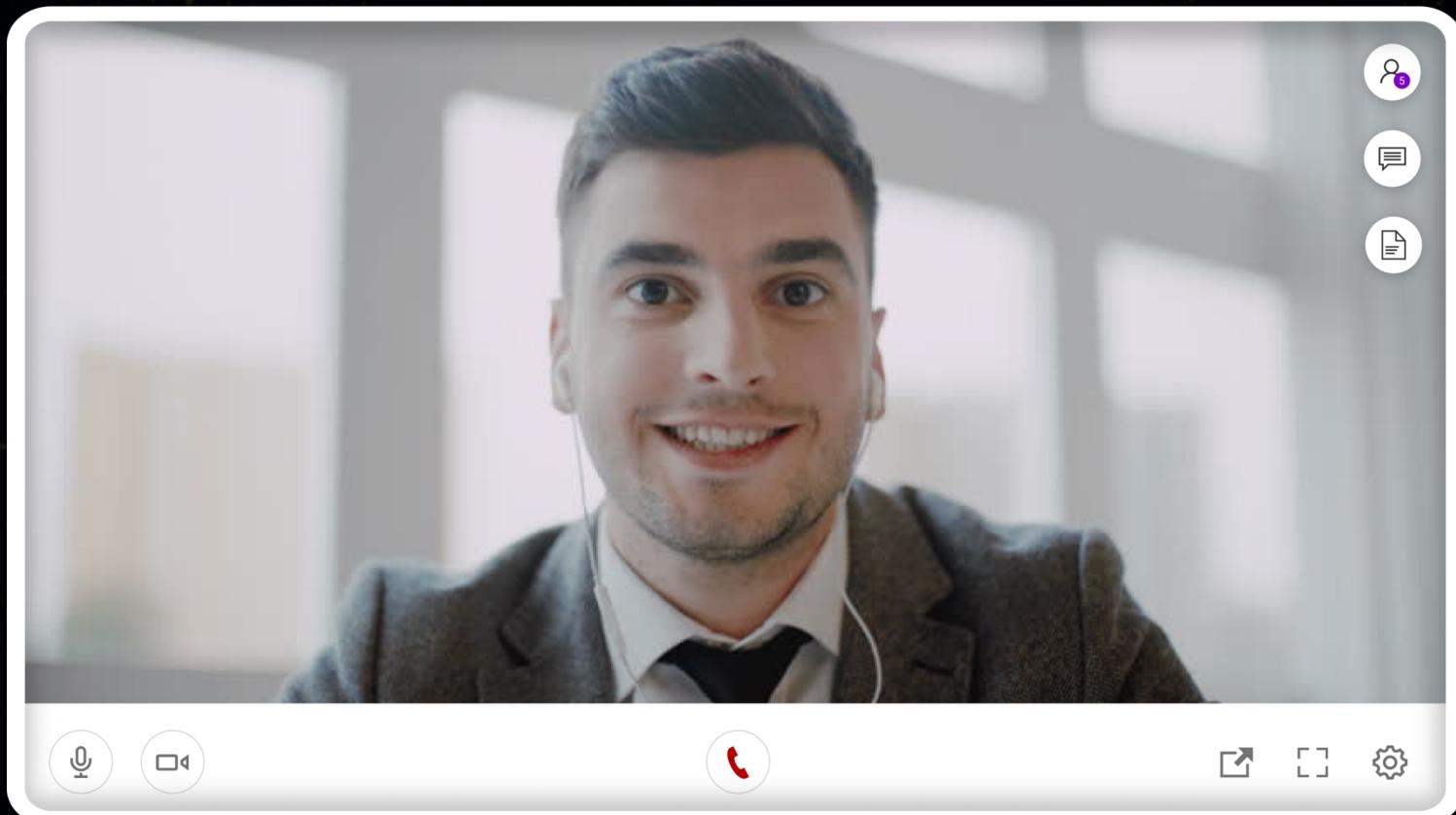
Don't have an account? [Sign up](#)

**Get ready for the meeting**

Before entering the meeting, you can adjust the setting.



**Join now**



**User Login**

**Setup**

**Main Page**

**User**   **Chat**   **Transcript**

**JunctionX Seoul 2020**

User(5) Chat Transcript

+ Invite user

Lask Tim Dyno Hye Rak

**JunctionX Seoul 2020**

User(5) Chat Transcript

Lask 10:30 AM Hi guys!

Tim 10:30 AM Hello, there :)

**JunctionX Seoul 2020**

User(5) Chat Transcript

Dyno 10:30 AM The topic of today's meeting is JunctionX Seoul!

Lask 10:30 AM What should we start with?

Tim 10:30 AM Maybe we should start thinking about what we are uncomfortable with. This way, we will feel better and start working together.

Say "Start Message"  
Your voice message will be sent in a transcript form.

Type something

Your message will be read out loud.



# Key benefits

1

Now, the people with disabilities can attend the meeting without anyone's help and freely express their opinions.



Establishes an inclusive society, welfare plan, effective communication for the minorities through accessibility.

**Weco** will help anyone inclusively communicate with **Weco**'s promising features. As a result, the expectations are as follows.

2

Now, video conferencing with foreigners is easier through real-time translation feature.



Shares global insight which help more people become interested in and cope with global issues.

3

Now, the service can export the voice and text transcript without having to additionally take transcript notes during meetings.



Guides in an accurate, efficient, formal means of organizing internal meetings in organizations.



Let us **wēco** everyone's voice.