Socialising While Physically Apart by Watching Video Together

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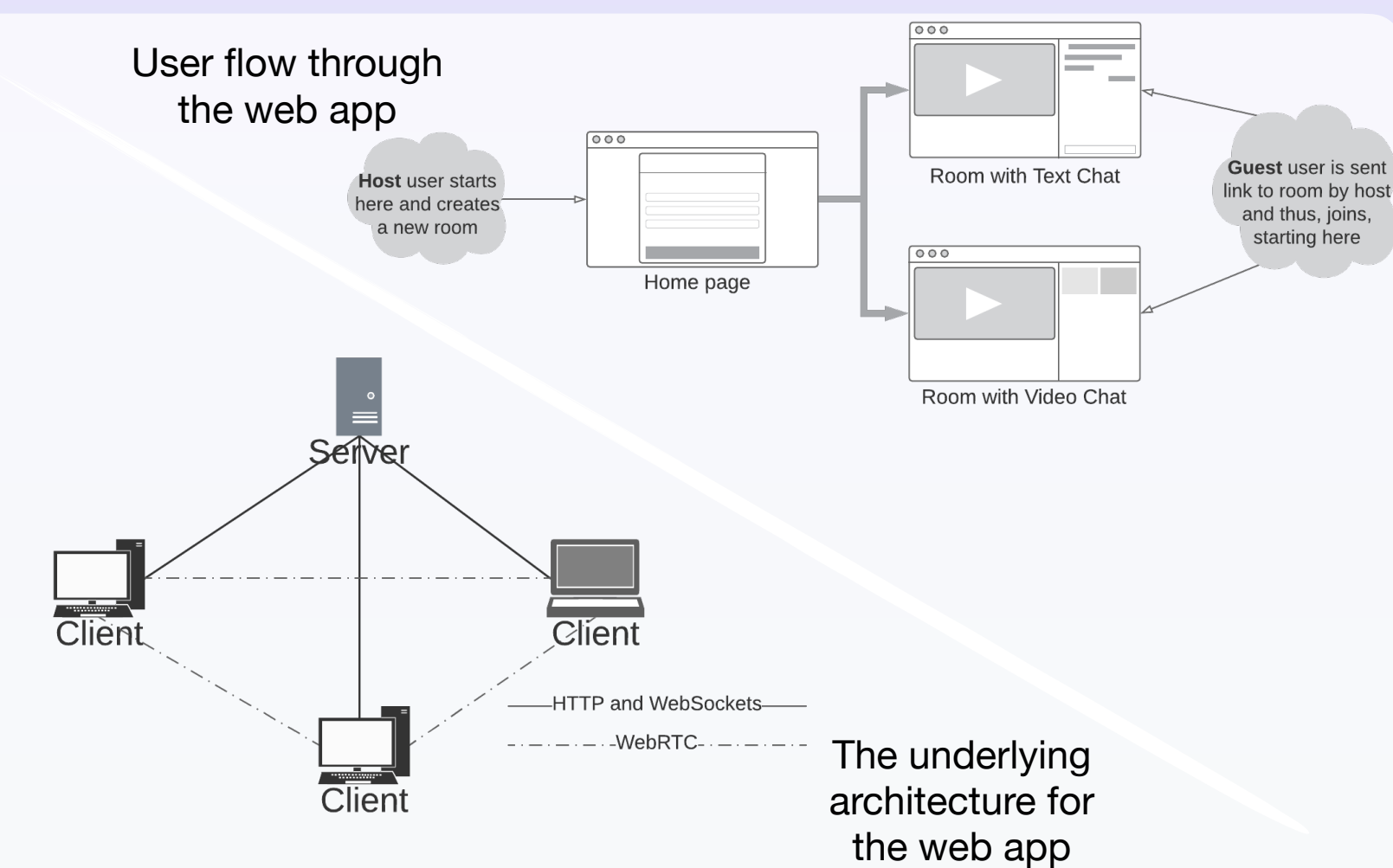
Background

What have you missed the most about life before the pandemic?

AIMS

• Build an app to allow remote users watch videos together and in sync.

• The app should allow all users have playback full control unless specifically denied by the host.

• The app should allow for varying levels of user communications such as text, voice or video chat.

• Complete user study on the feeling of togetherness between remote users watching video using the app
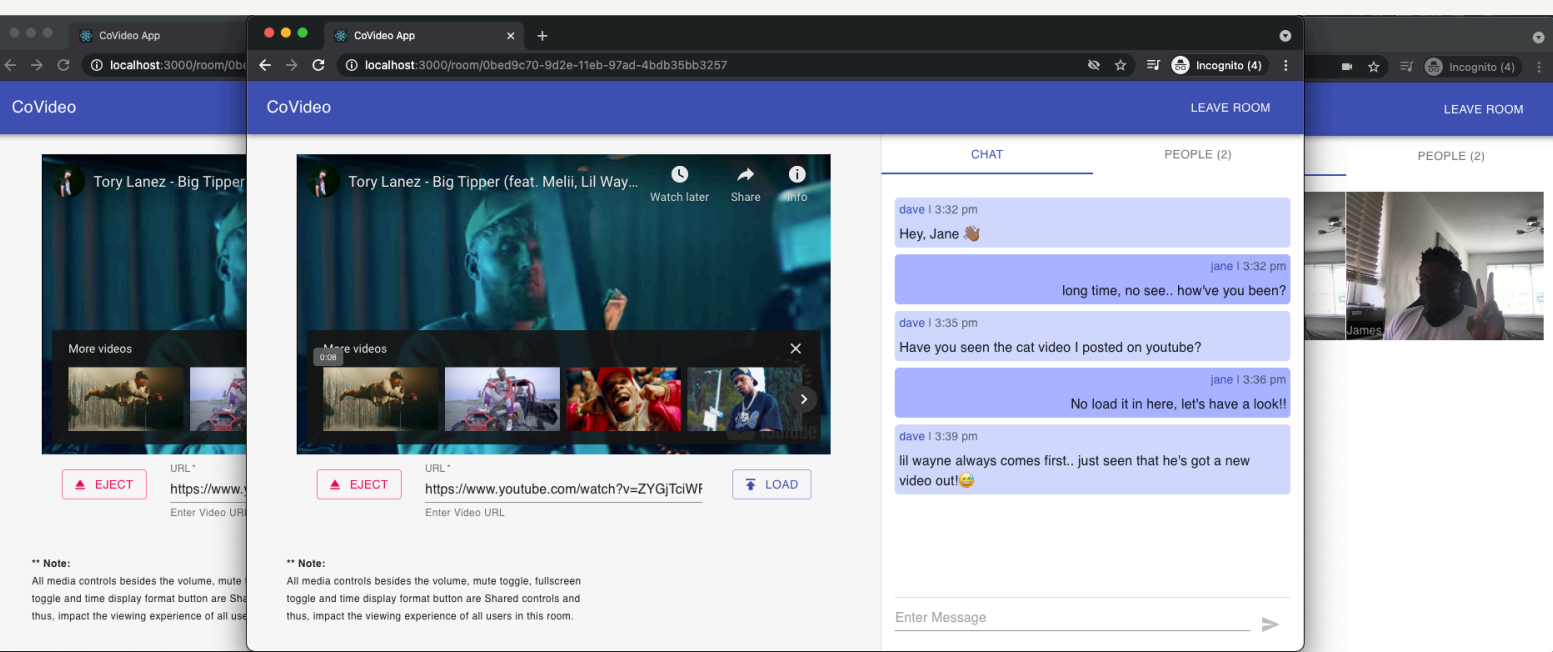
Approach

▷ *Use WebRTC* — it offers the greatest documentation, support and sub-second latency.

▷ *Build for the Web* — it is most widely available and accessible

▷ *Compare the feeling of togetherness while varying the communication modality available to users*

▷ Learn to use chosen tech

▷ Produce and evaluate prototypes

▷ Complete design, coding and testing of final app

▷ Run and evaluate user study

App Design and Architecture

User flow through the web app

Host user starts here and creates a new room

Home page

Room with Text Chat

Room with Video Chat

Guest user is sent link to room by host and thus, joins, starting here

Server

Client

Client

Client

HTTP and WebSockets

WebRTC

The underlying architecture for the web app

Implementation

CoVideo web app, featuring:
• Two room communication modes – Text Chat, Video Chat,
• Two room types – Watch Together, Broadcast
• A shared video player in each room

Try it yourself at **https://covideo.herokuapp.com/**

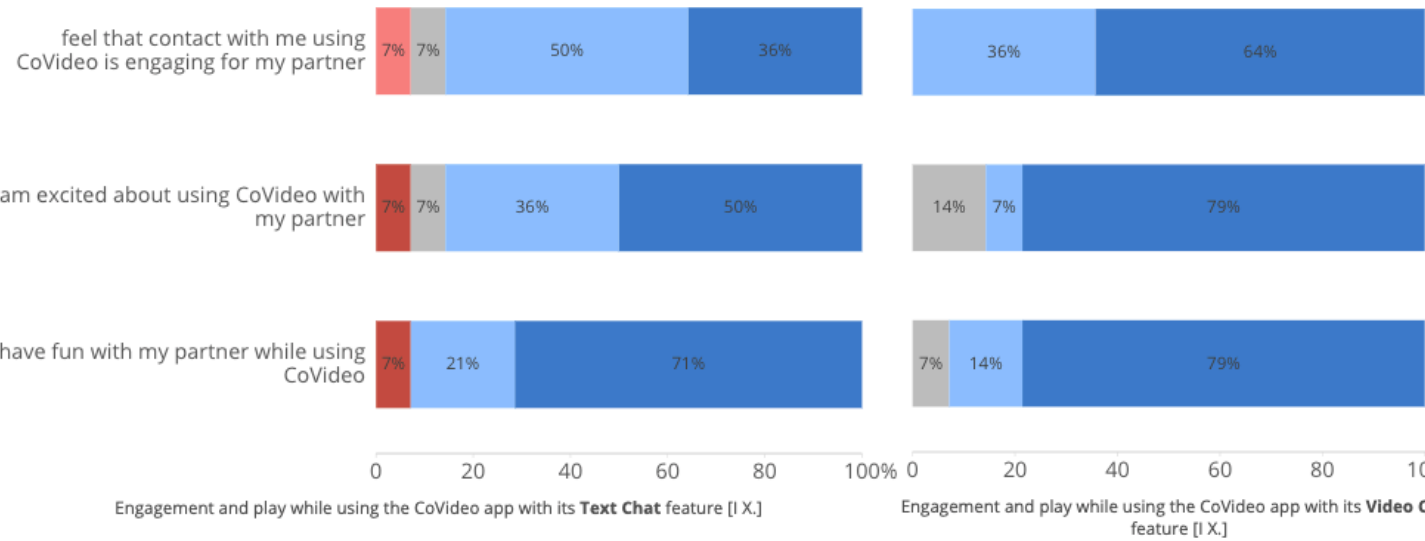…or see the code at https://github.com/David24E/CSP420
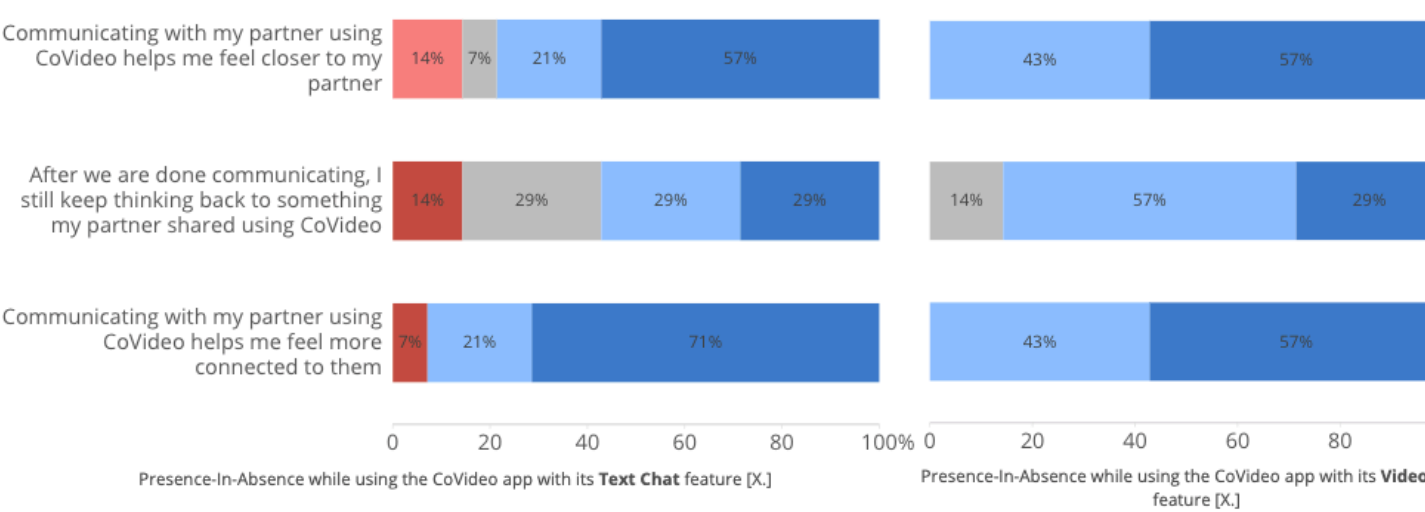
Evaluation

Research Questions:
• Does using the app foster the feeling of togetherness between remote users?
• What are the effects of the chosen communication mode on that feeling of togetherness?
• How can the app be improved so that it reinforces and further stimulates the feeling of togetherness?, etc.

Method:
• Get participants to experience the app using both communication modes.
• Get participants to fill a session questionnaire after each session and a final questionnaire to end the study.

feel that contact with me using CoVideo is engaging for my partner — 7% | 7% | 50% | 36% ; 36% | 64%

am excited about using CoVideo with my partner — 7% | 7% | 36% | 50% ; 14% | 7% | 79%

have fun with my partner while using CoVideo — 7% | 21% | 71% ; 7% | 14% | 79%

Engagement and play while using the CoVideo app with its **Text Chat** feature [I X.]

Engagement and play while using the CoVideo app with its **Video Chat** feature [I X.]

A comparison of the communication modes based on the Engagement and Play section of the ABCCT scales

Communicating with my partner using CoVideo helps me feel closer to my partner — 14% | 7% | 21% | 57% ; 43% | 57%

After we are done communicating, I still keep thinking back to something my partner shared using CoVideo — 14% | 29% | 29% | 29% ; 14% | 57% | 29%

Communicating with my partner using CoVideo helps me feel more connected to them — 7% | 21% | 71% ; 43% | 57%

Presence-In-Absence while using the CoVideo app with its **Text Chat** feature [X.]

Presence-In-Absence while using the CoVideo app with its **Video Chat** feature [X.]

A comparison of the communication modes based on the Presence-In-absence section of the ABCCT scales

Legend:
■ Always
■ Usually
■ Sometimes
■ Rarely
■ Never

Legend for the stacked bar charts

Text Chat	64.3%
Video Chat	35.7%

Communication Mode Preference while using the CoVideo app

Strongly Agree	78.6%
Agree	21.4%

Connecting with remote friends or family while participating in a shared activity further fosters the feeling of togetherness