

# ECHO MARKS

A SONIC THINKING PROJECT



# PROJECT INFORMATION

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# THE IDEA

## The Problem

Messengers and Social Media can have a negative impact on mental health and distance people from the world around them [1],[2] .

## The Research Question

How can we avoid that and use technology to bring people closer together?

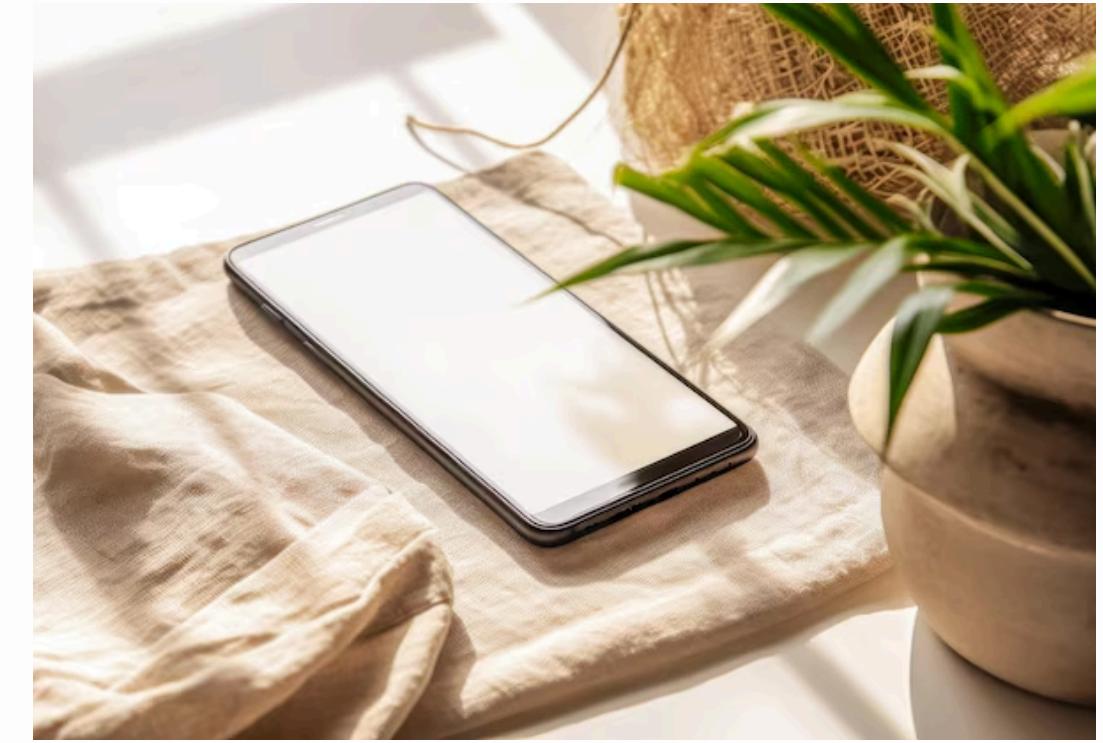
## The Hypothesis

Enable people to leave an echo wherever they go, allowing others to later listen to these traces. This will deepen their connection to each other and the world around them.



# THE IMPLEMENTATION

Create an App that allows users to leave and listen to echos wherever and whenever they want.



## Map

- display user location
- display echo locations

## Creation of Echos

- create sound file
- set location  
(default to user location)
- set recipient  
(single person, group or public)
- toggle visibility on map

## Playback of Echos

- notify user when at echo location
- play echo when at location



# GOAL

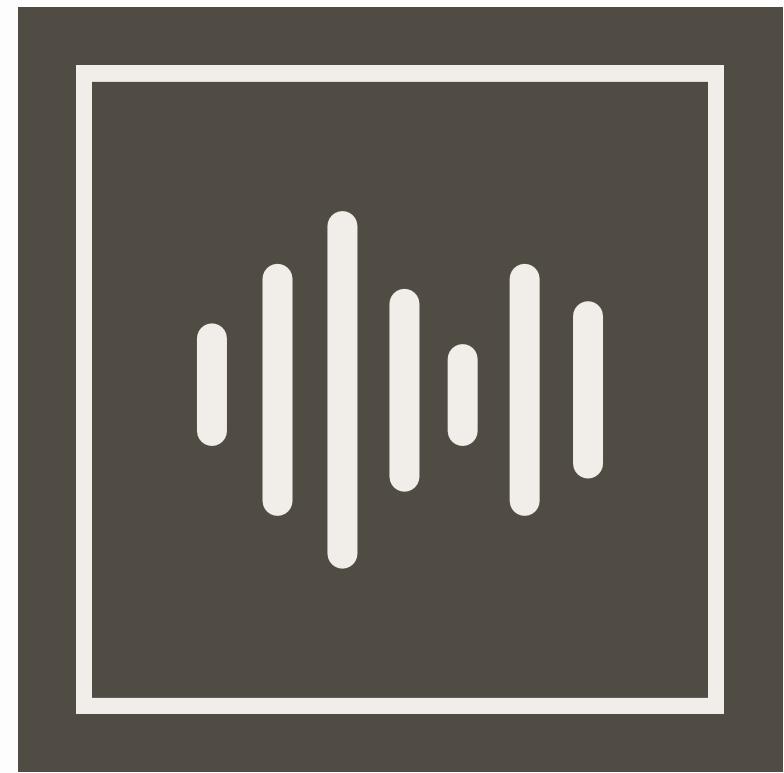
Create MVP with the following features:

- Display Map
- Create audio file linked to specific location
- Display audio file on map
- Enable user to play audio file

- Notify when user is at location of audio file
- Audio file only accessible when at right location
- Address messages to groups/individuals/public
- Configurations like autoplay and visibility on map

} This Semester

} When there is extra time

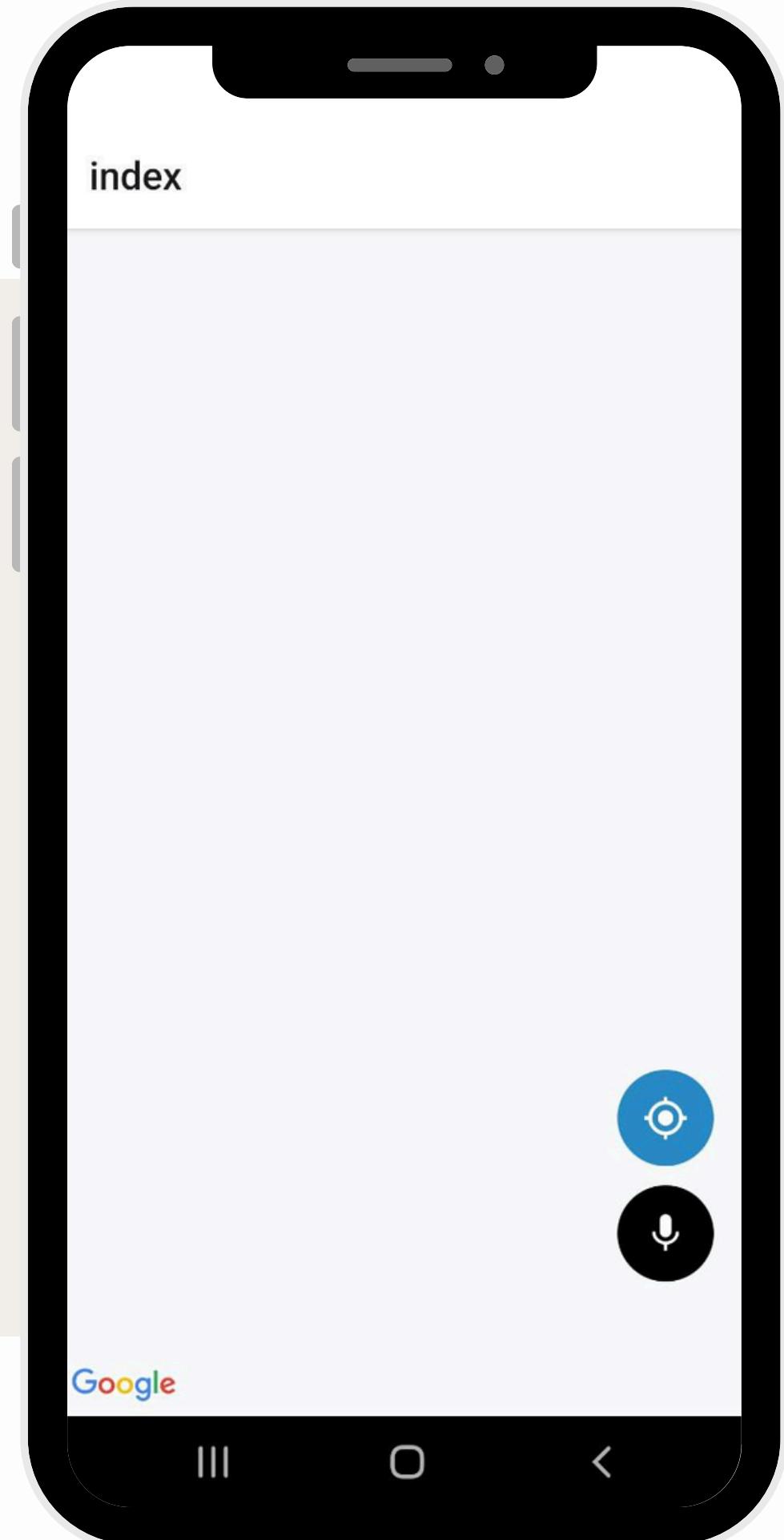


- D E M O -

# WHERE WE ARE AT

Create an App that allows users to leave and listen to echos wherever and whenever they want.

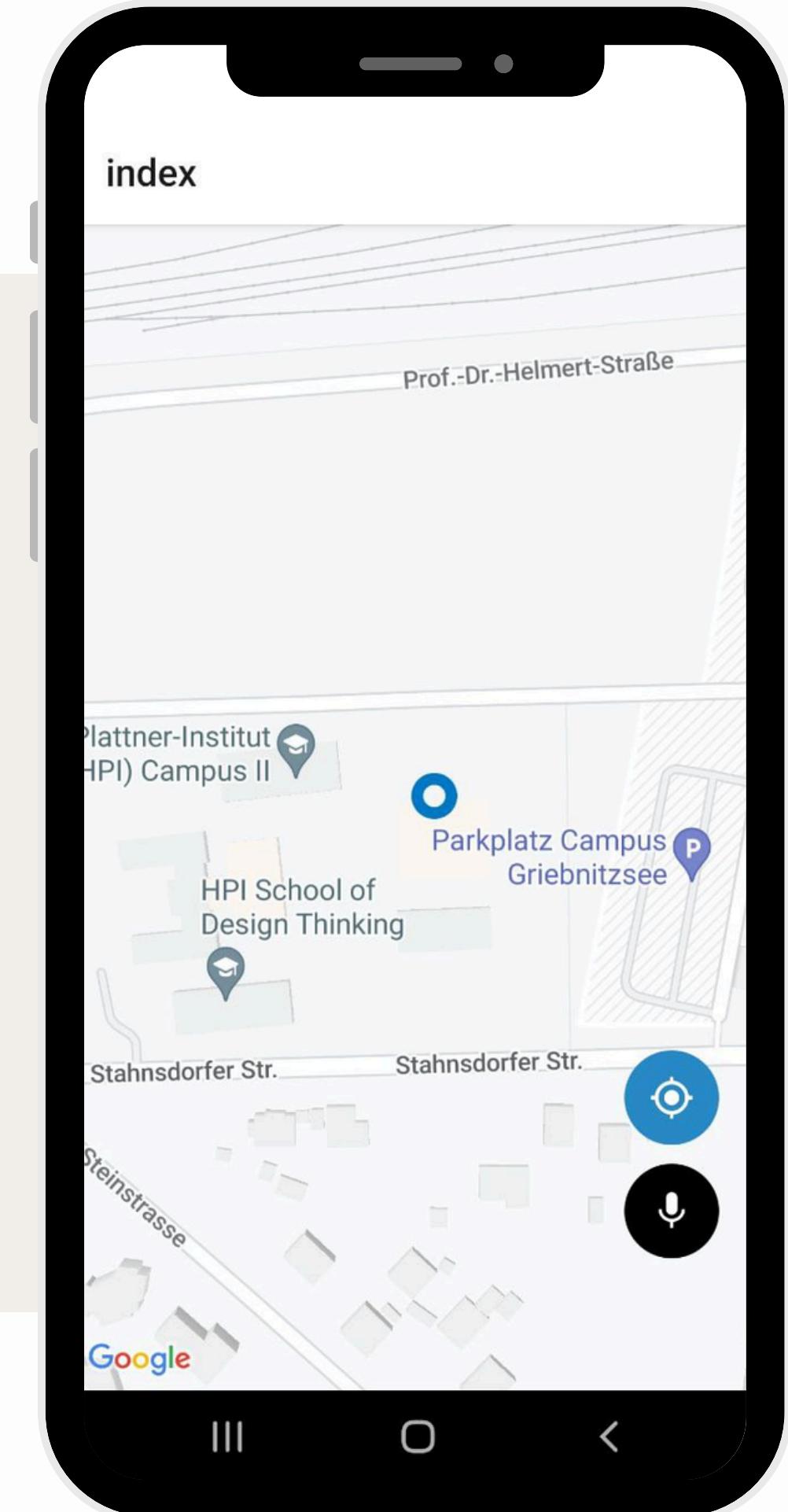
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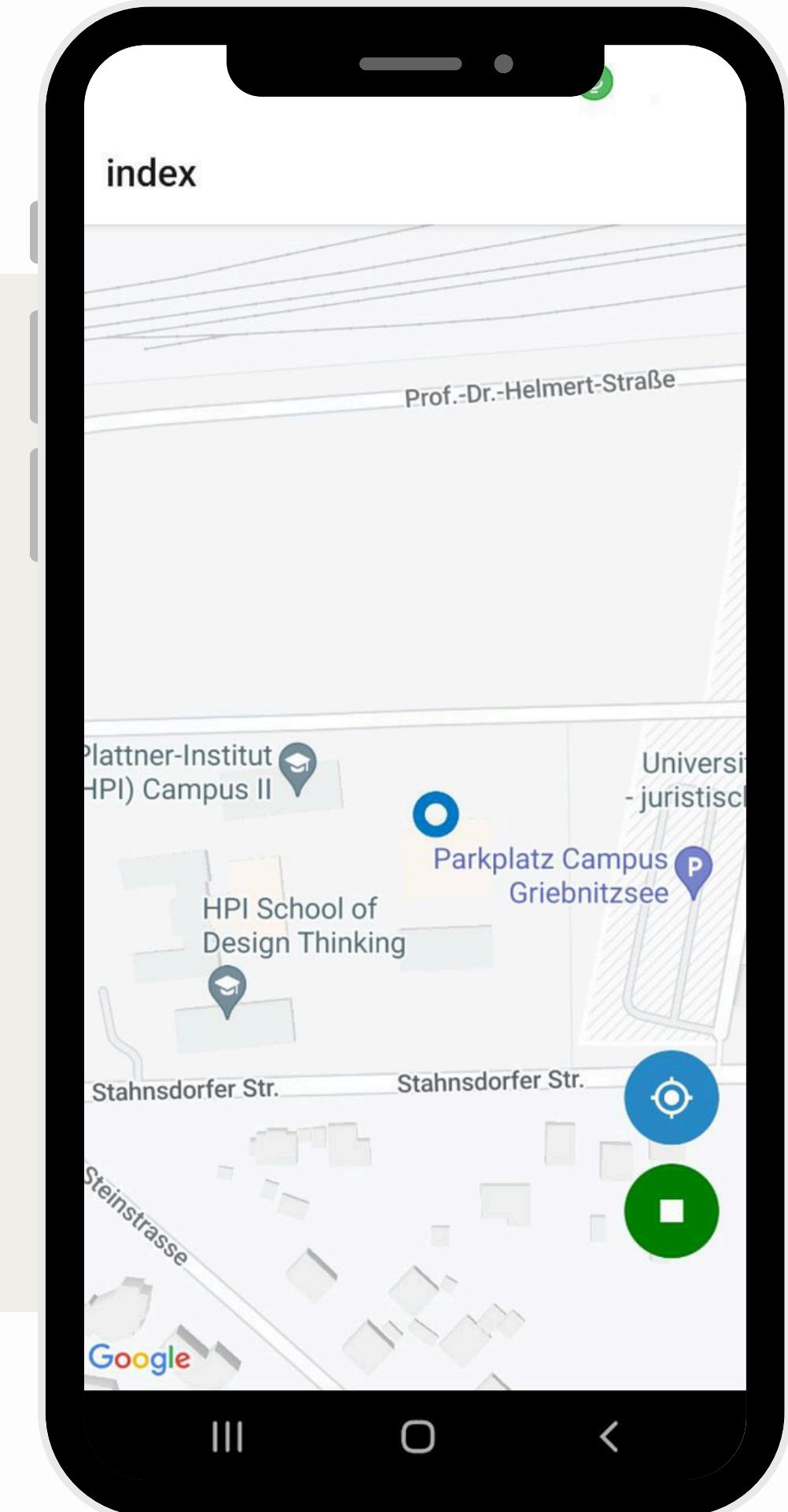
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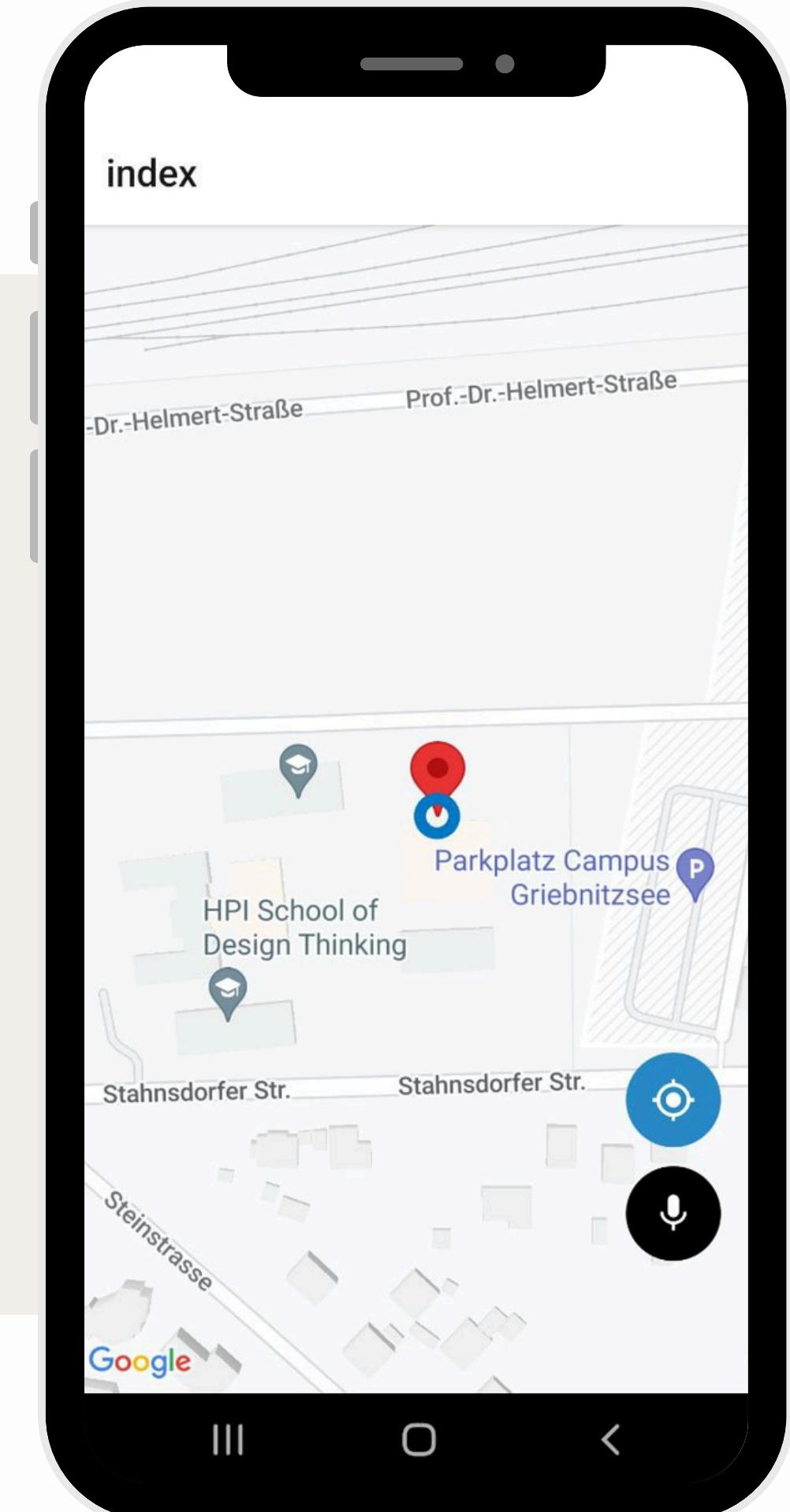
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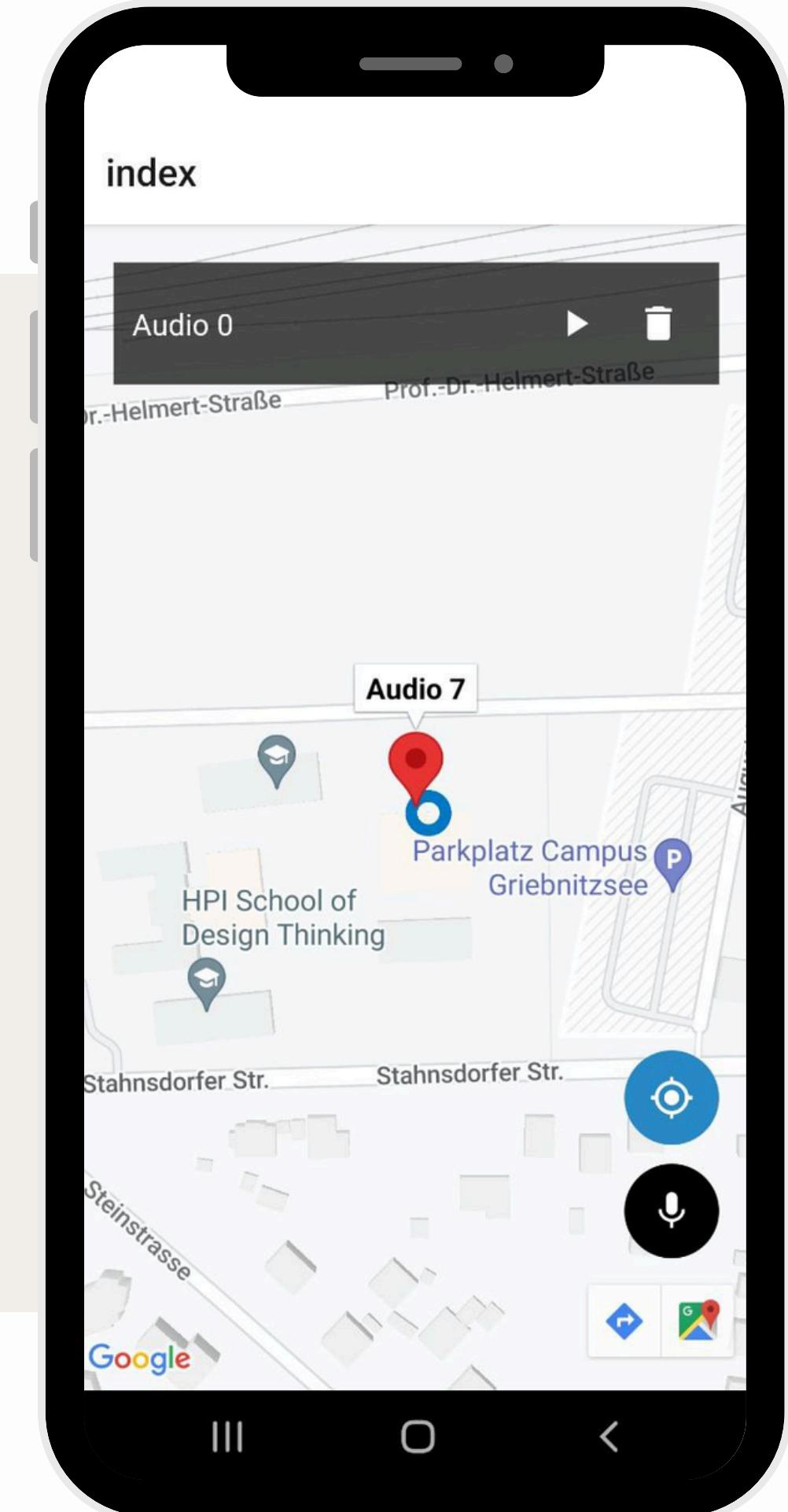
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- **Display Map**
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# GOAL

Create MVP with the following features:

- **Display Map**
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} This Semester





# GOAL

Create MVP with the following features:

- **Display Map**
- **Create audio file linked to specific location**
- **Display audio file on map**
- **Enable user to play audio file**

- + **Delete audio file**
- + **Reset map to user location**

} This Semester



# RESEARCH QUESTION

How can we use technology to bring people closer together without distancing ourselves from the world around us?



# EVALUATING THE APP



- 01** Introduce a selected group of people to the Echo Marks application

- 02** Conduct a user survey with this group using a questionnaire

The screenshot shows a Google Forms survey titled "Echo Marks". The header includes a toolbar with "Fragen", "Antworten", and "Einstellungen". The main content area has a title "Echo Marks" and a descriptive paragraph about the survey's purpose. Below this are two sections: "Age \*" with five radio button options (Under 18, 18-24, 25-34, 35 and above, 45 and above) and "Gender \*" with three radio button options (Female, Male, Non-binary). On the right side of the form, there are icons for adding questions (+), deleting questions (-), and a trash bin (Tr).

# LIMITATIONS

As I undertook the development of the prototype alone, I couldn't incorporate all the features I had envisioned for the final product.

As a result, a complete evaluation is not yet feasible.



## **Missing Network Component**

- Messages are device dependent
- Evaluation on effect of App on interpersonal relationships is limited

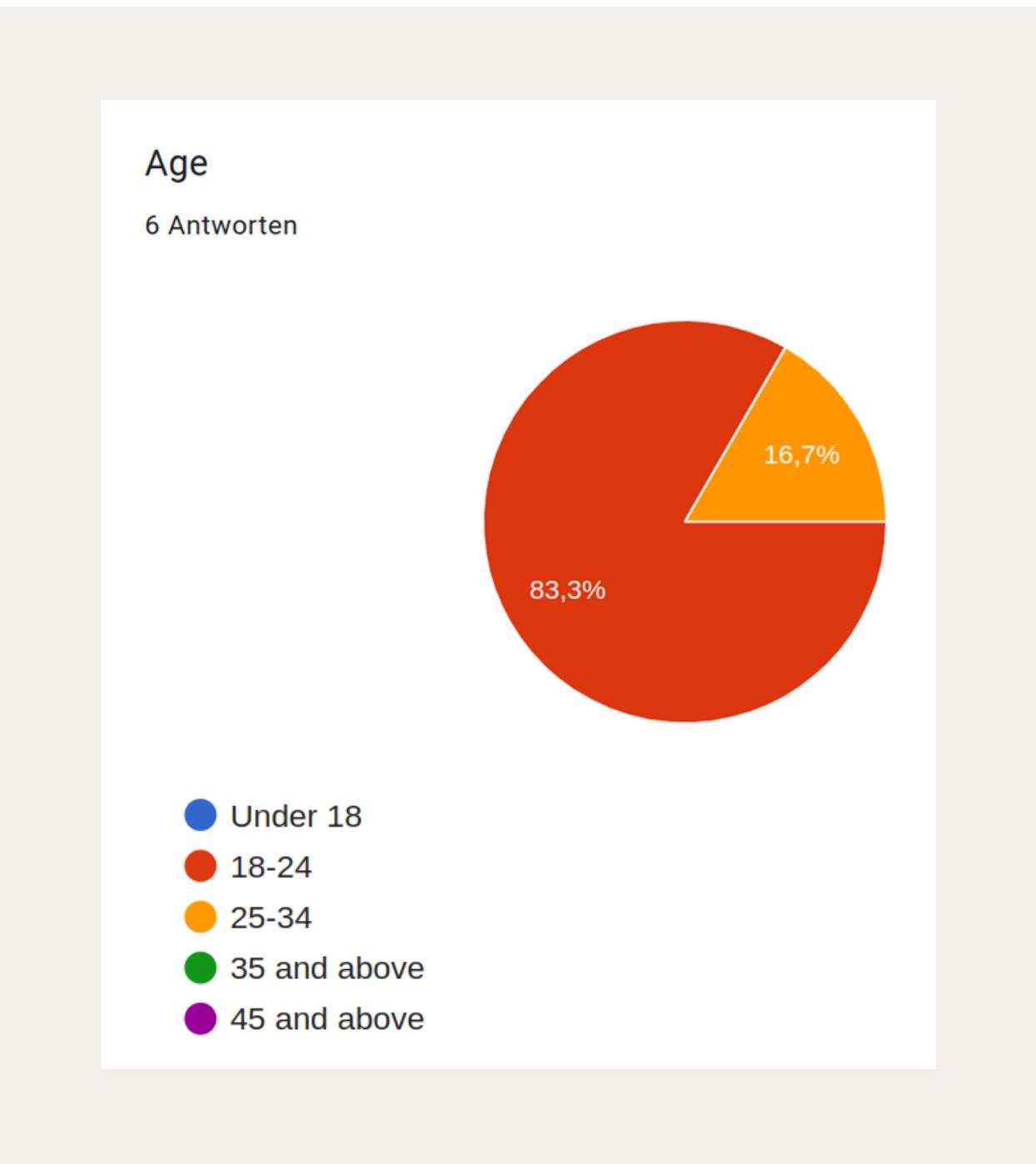
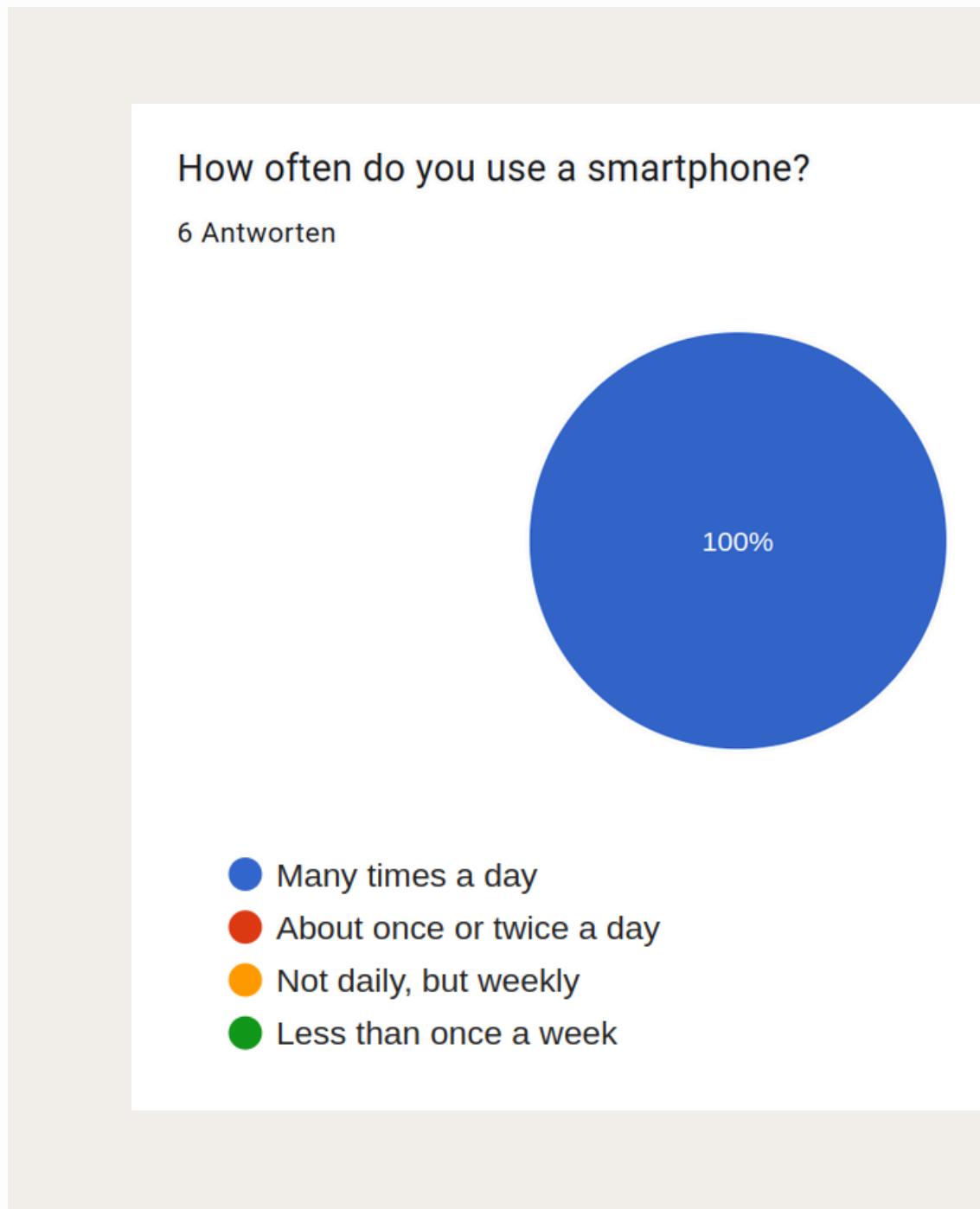
## **Playback Location Independent**

- User doesn't need to be at the correct location
- Functionality has to be simulated
- Limits the user experience.

## **Subjective Evaluation**

- No large-scale surveys
- Results remain subjective
- Lack of statistical significance
- Serve as indicator rather than definitive proof of concept

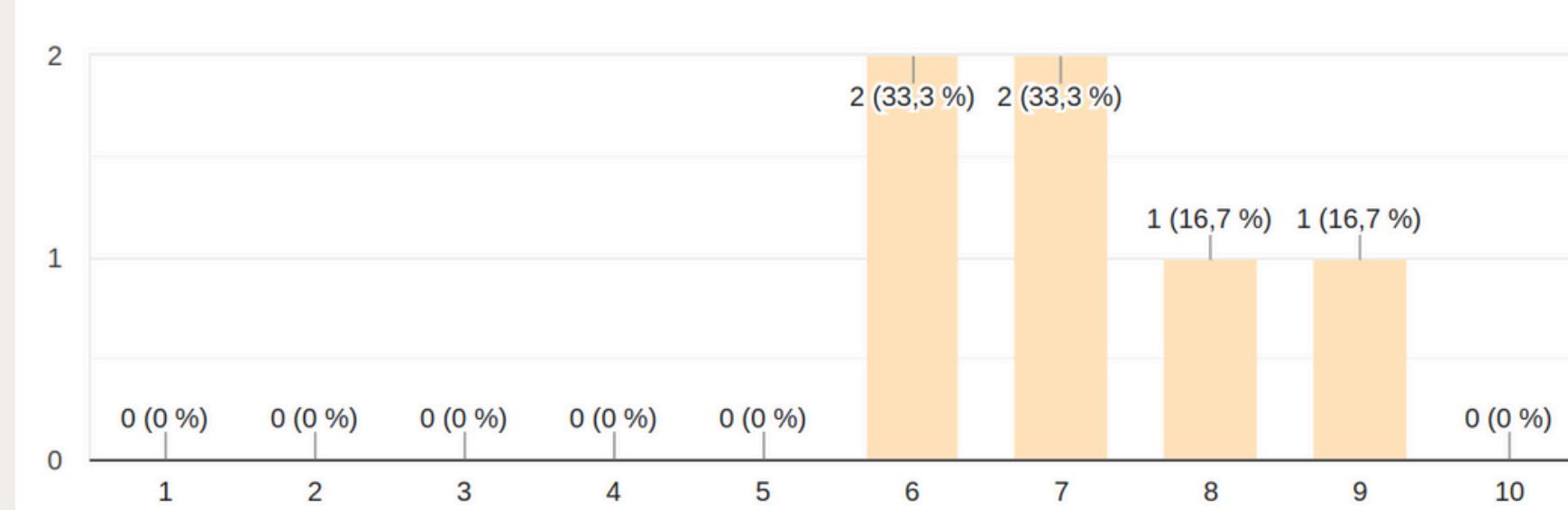
## 01 Limitations



## 02 Interpersonal Connection

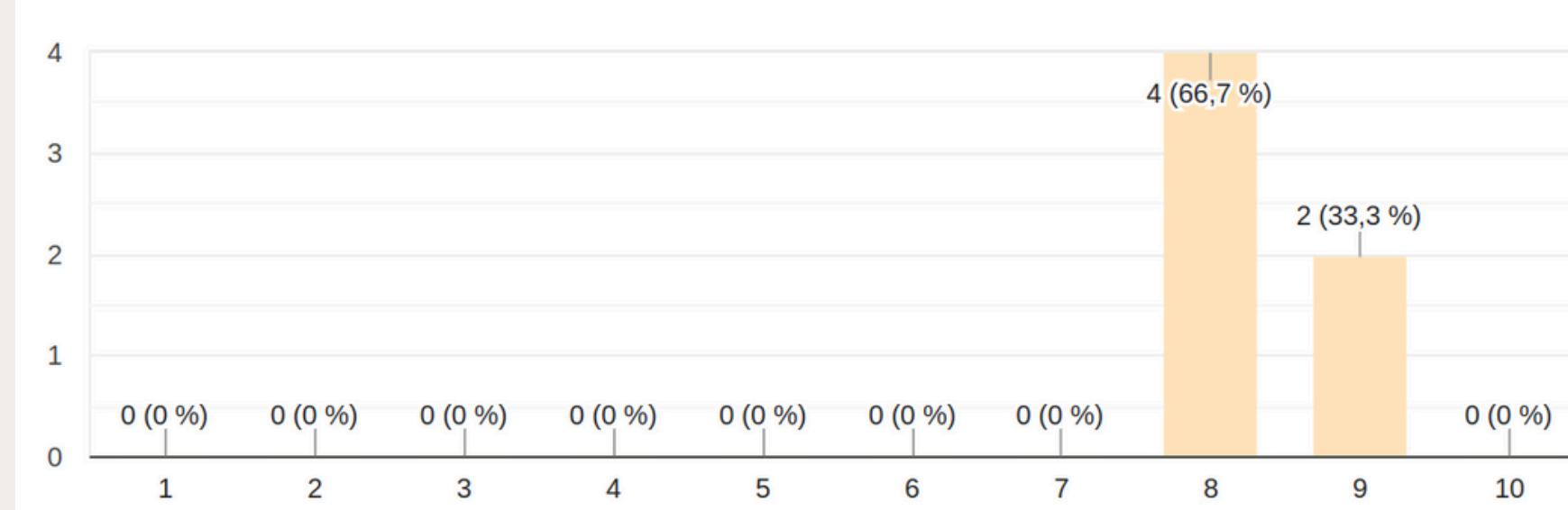
**How did the placement of audio messages for others affect your sense of connection to them?**  
(compared to if you had texted them at that moment)

1: Strongly decreased connection  
10: Strongly increased connection



**How did the discovery of audio messages affect your sense of connection to the senders?**  
(compared to if you had received a text at that moment)

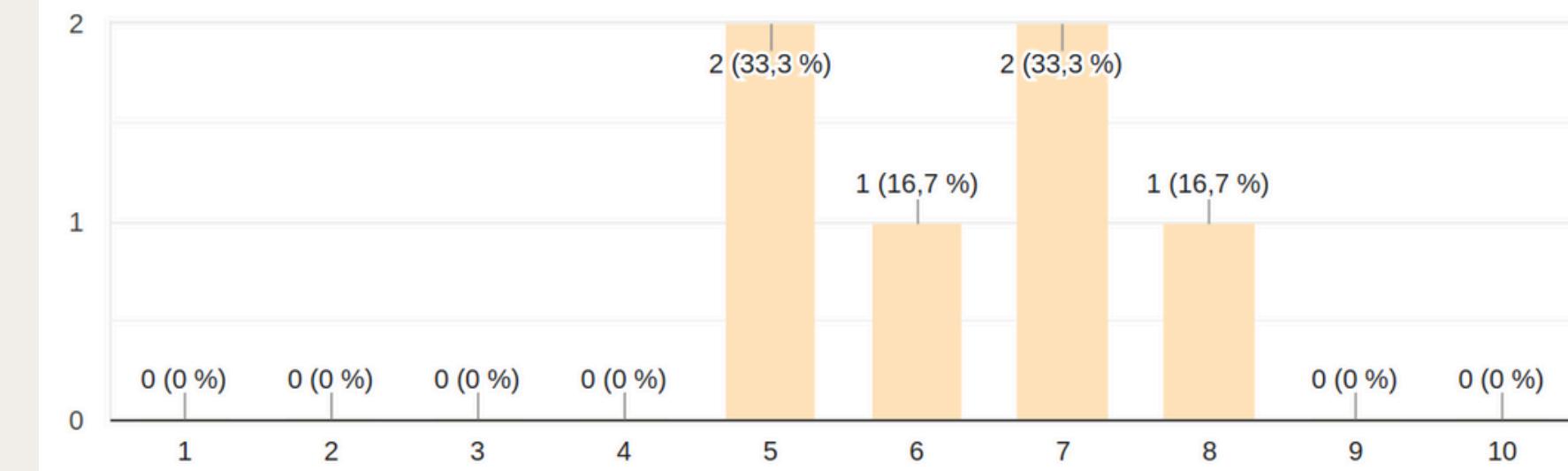
1: Strongly decreased connection  
10: Strongly increased connection



## 03 Engagement with Environment

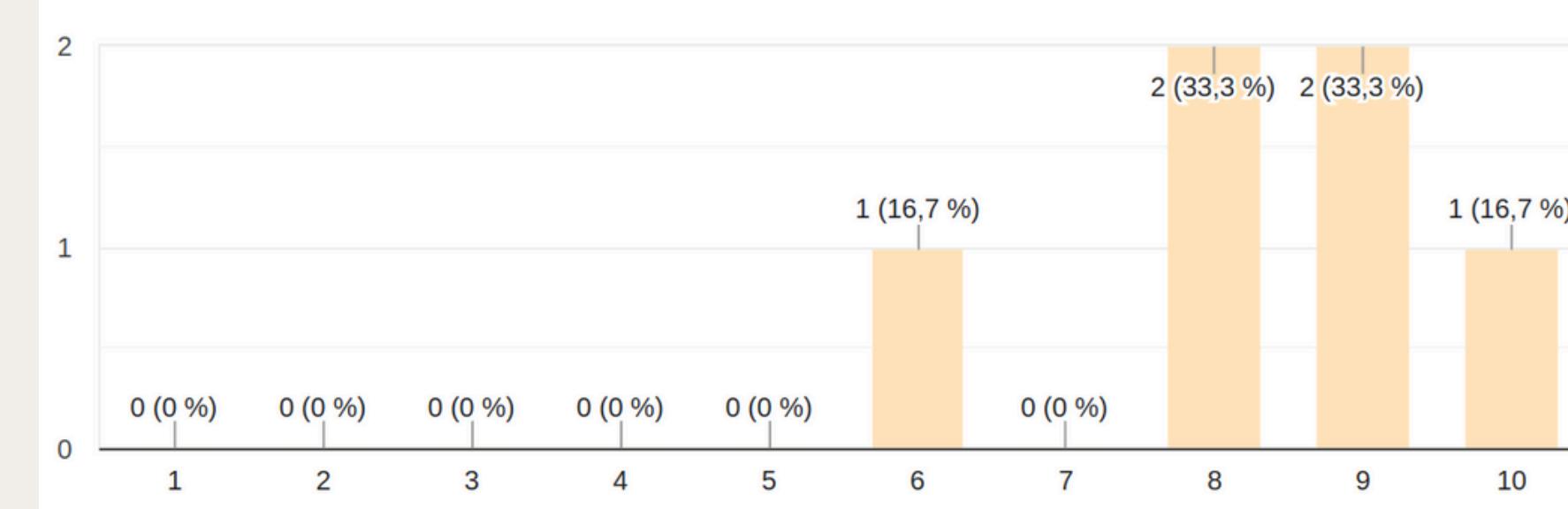
**How did the use of the system affect your amount of engagement with the physical world?**

- 1: Strongly decreased engagement  
10: Strongly increased engagement



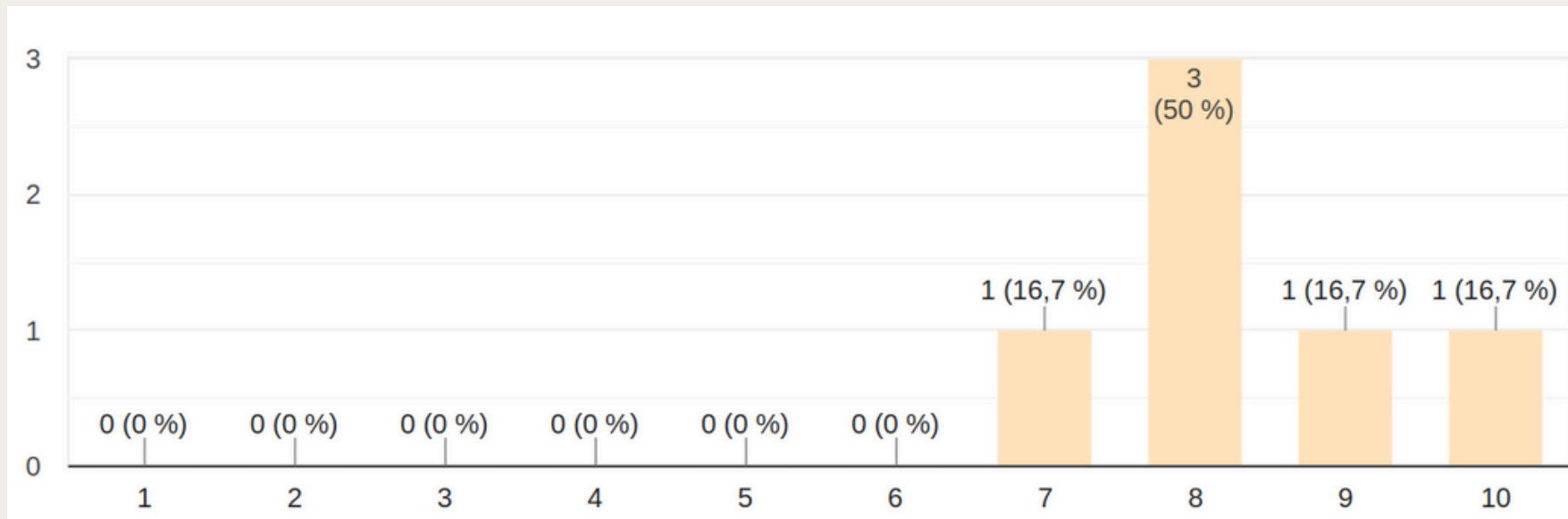
**Would you take a detour or a walk to reach an audio note?**

- 1: No, Never!  
10: As often as possible!



## 04 Future Use

**How likely is it that you would use the app regularly if it were fully developed?**  
**On a scale from 0% to 100%.**

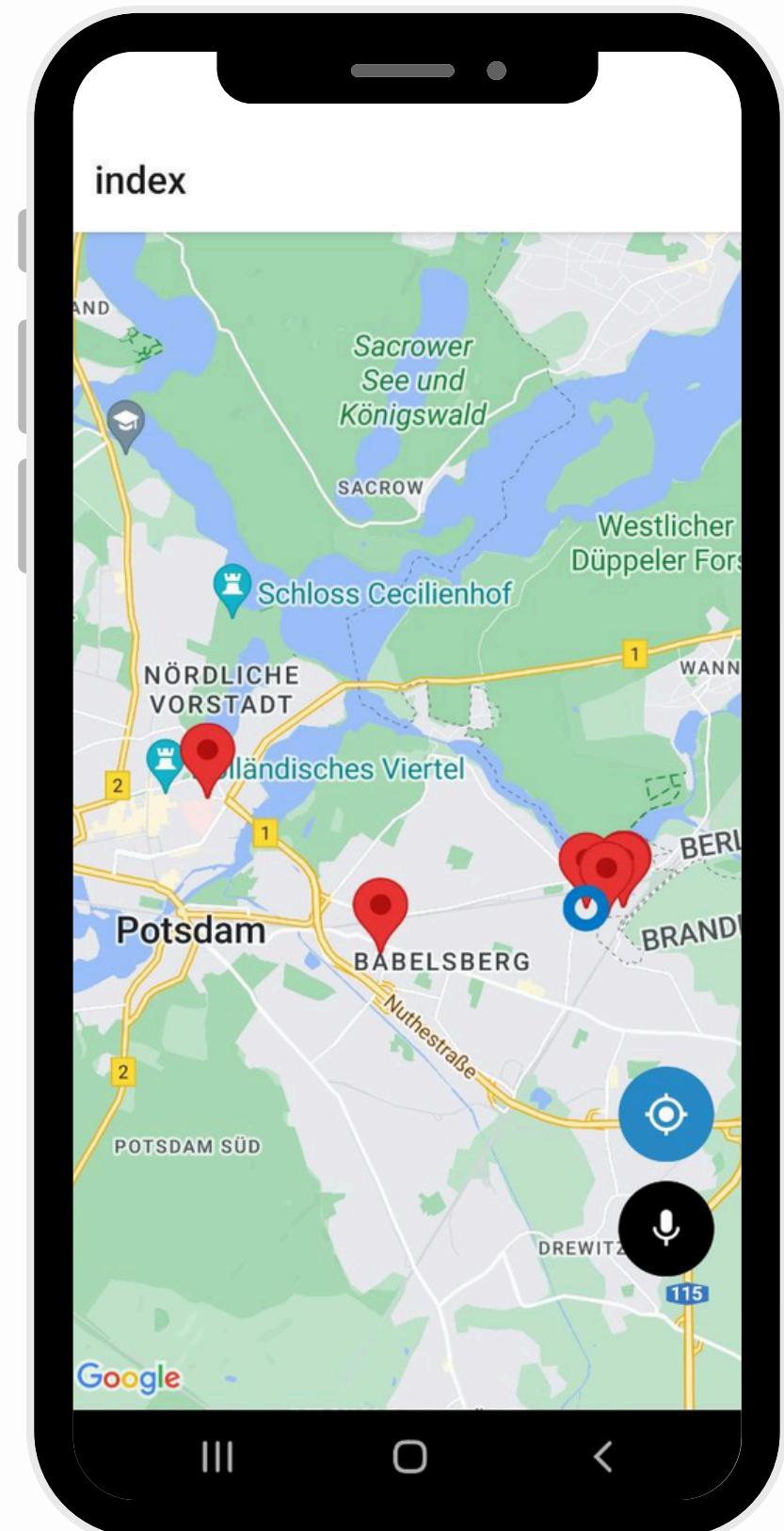


### Suggestions for additional features

Allow users to react to messages

Support text-messages and pictures

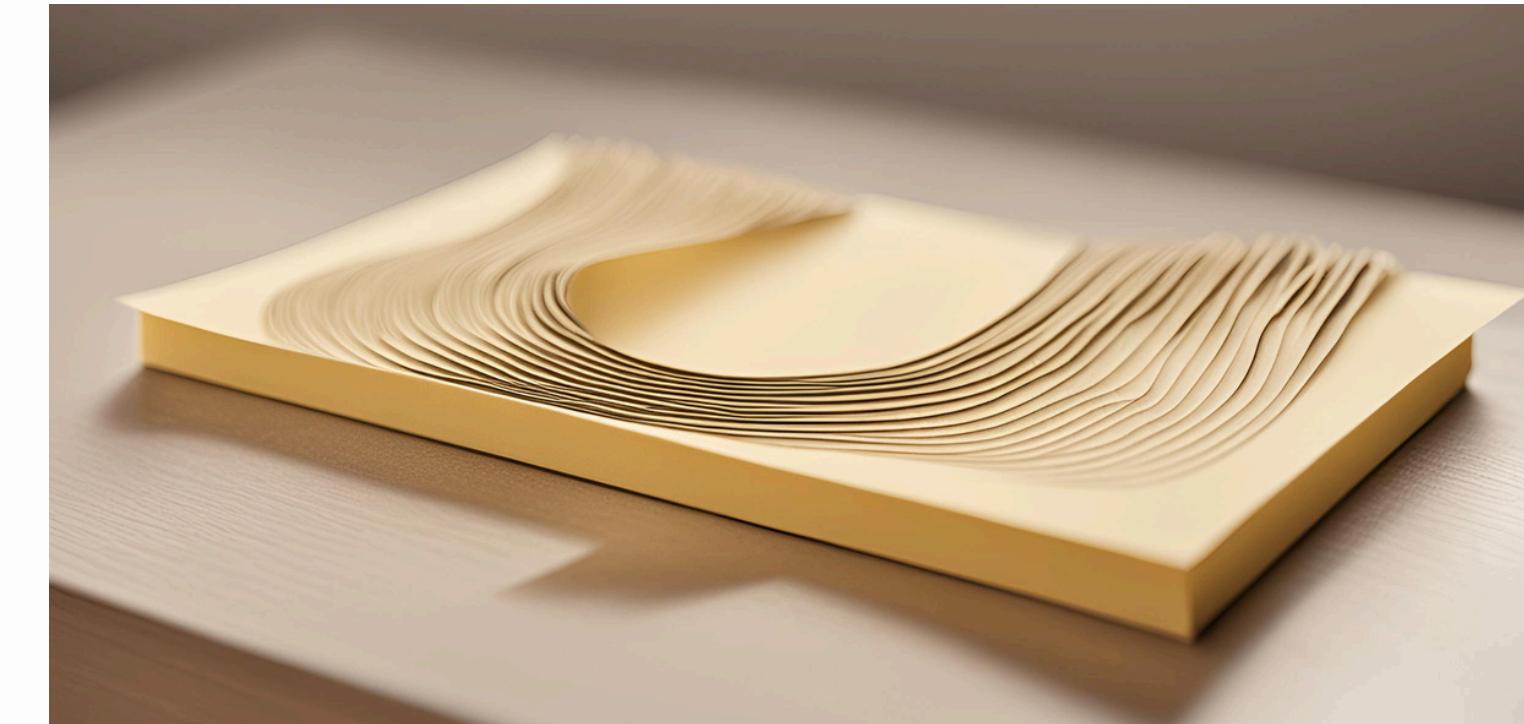
Add voting and report system for public messages



## CONCLUSION

This prototype served as a proof of concept, convincing my test group that Echo Marks would be a valuable addition to their daily lives by significantly enhancing their relationships with others and their environment.

# ACHIEVEMENTS



**1.**

Building a prototype that includes all the required features for the MVP

**2**

Using this prototype to introduce an early test group to the concept of echo marks and evaluate it in relation to the research question

**3**

Proofing through positive feedback that the conceptual and technical design meets the requirements of the research question

# FUTURE WORK

1.

Implement the missing features of the MVP:

- Notify when user is at location of audio file
- Playback only possible when at right location
- Address messages to groups/individuals/public
- Additional configurations (auto play/map visibility)
- Network component

2.

Deploy the product and make it accessible to a large user base

3.

Conduct a large scale User-Study e.g. with the use of questionnaires



4.

Conduct a detailed evaluation of echo marks in relation to the research question

5.

Use the insights gained to adjust Echo Marks and iterate through the feedback loop again

# WHAT DID I LEARN

It is very rewarding to work on realizing a vision that one believes in. Even more beautiful is being able to convince other people of this vision and watching it come to life.



## REFERENCES

[1] Cheng, Cecilia, and Angel Yee-lam Li. "Internet addiction prevalence and quality of (real) life: A meta-analysis of 31 nations across seven world regions." *Cyberpsychology, behavior, and social networking* 17.12 (2014): 755-760.

[2] Young, Kimberly S., and Robert C. Rogers. "The relationship between depression and Internet addiction." *Cyberpsychology & behavior* 1.1 (1998): 25-28.

