QUICKSCAN - CANVAS

Dynamic Sound Level Control

NAME: Dynamic Sound Level Control
DATE: November 22, 2022 12:48 PM

DESCRIPTION OF TECHNOLOGY

Modern, dynamic educational buildings often face the challenge that they are a great environment for one student and not at all for another. An important reason for this is the sound. It is an enormous challenge to ensure that the noise levels in these buildings are acceptable to as many people as possible without compromising the dynamics of the buildings. In this project, you take up that challenge!

HUMAN VALUES

The technology is not designed to affected by the users identity. The technology is designed to change the behaviour of people that make to much noise through some sort of intervention.

TRANSPARENCY

The technology has a manual on how to set it up the project. Each module of the project has it own documentation on how to use it and the project has complete documentation. While the technology does not have a business model at this point we can assume their will be a monthly subscription for the server, a one time price for the hardware, installation cost and a server costs based on how many devices.

IMPACT ON SOCIETY

For their educational buildings, Fontys is looking for a solution to control the sound levels in parts of the building without compromising the dynamics of the buildings.Earlier other groups have already worked on this problem and have created parts of the solution.The next step is figuring out how you can enable the manager of an educational building to designate quiet zones simply and dynamically and how do you point this out to students?

STAKEHOLDERS

- Fontys - Dienst Huisvesting en Facilitaire Zaken
- (Jelco Debets)
- Open Learning coaches
- (Joeri van Belle & Rens van der Vorst)
- Developers
- (Rens van den Brekel & Patrick Kocken)

SUSTAINABILITY

The technology currently only uses indirect energy usage in the form of (cloud) server energy usage. In the future when the mocked hardware application is replaced by actual hardware the hardware will have a direct usage.

HATEFUL AND CRIMINAL ACTORS

The technology is not designed to break the law or avoid the consequences of breaking the law. We think the usage of the technology is can't be used to break the law or avoid the consequences of breaking the law in any form.

DATA

The biggest data category of the technology is the generated sound levels. The technology does not make decisions or advices users into doing things based on the data. The administrators of the technology can view and export the data and make their own analysis. In the future when the technology is deployed on new locations the first couple of days the data can be bias when the devices are not effectively installed.

FUTURE

The technology is designed to scale up or down based on the amount of users and devices. In the future the other (technology) groups will work on replacing the mock hardware application with actual hardware.

PRIVACY

The technology itself doesn't register or store any personal data. For authentication within our technology we use the an external authentication system (Fontys login) so we don't have to store and manage user information. We do short-lived tokens in the website which contains encrypted basic user information.

INCLUSIVITY

The technology doesn't have a built-in bias. The sound level data is currently generated trough a random generator. In the future when there is actual hardware the way the sound levels are collected is not on a personal level but on a device location level.

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QUICKSCAN - CANVAS - HELPSIDE

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HUMAN VALUES

How is the identity of the (intended) users affected by the technology?

To help you answer this question think about sub questions like:

- If two friends use your product, how could it enhance or detract from their relationship?
- Does your product create new ways for people to interact?…

TRANSPARENCY

Is it explained to the users/stakeholders how the technology works and how the business model works?

- Is it easy for users to find out how the technology works?
- Can a user understand or find out why your technology behaves in a certain way?
- Are the goals explained?
- Is the idea of the technology explained?
- Is the technology company transparent about the way their…

IMPACT ON SOCIETY

What is exactly the problem? Is it really a problem? Are you sure?

Can you exactly define what the challenge is? What problem (what 'pain') does this technology want to solve? Can you make a clear definition of the problem? What 'pain' does this technology want to ease? Whose pain? Is it really a problem? For who? Will solving the problem make the world better? Are you sure? The problem definition will help you to determine…

STAKEHOLDERS

Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by…

When thinking about the stakeholders, the most obvious one are of course the intended users, so start there. Next, list the stakeholders that are directly affected. Listing the users and directly affected stakeholders also gives an impression of the intended context of the technology.
…

SUSTAINABILITY

In what way is the direct and indirect energy use of this technology taken into account?

One of the most prominent impacts on sustainability is energy efficiency. Consider what service you want this technology to provide and how this could be achieved with a minimal use of energy. Are improvements possible?

HATEFUL AND CRIMINAL ACTORS

In which way can the technology be used to break the law or avoid the consequences of breaking the law?

Can you imagine ways that the technology can or will be used to break the law? Think about invading someone's privacy. Spying. Hurting people. Harassment. Steal things. Fraud/ identity theft and so on. Or will people use the technology to avoid facing the consequences of breaking the law (using trackers to evade speed radars or using bitcoins to launder…

DATA

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into…

There are fundamental issues with data. For example:

- Data is always subjective;
- Data collections are never complete;
- Correlation and causation are tricky concepts;
- Data collections are often biased;…

FUTURE

What could possibly happen with this technology in the future?

Discuss this quickly and note your first thoughts here. Think about what happens when 100 million people use your product. How could communities, habits and norms change?

PRIVACY

Does the technology register personal data? If yes, what personal data?

If this technology registers personal data you have to be aware of privacy legislation and the concept of privacy. Think hard about this question. Remember: personal data can be interpreted in a broad way. Maybe this technology does not collect personal data, but can be used to assemble personal data. If the technology collects special personal data (like…

INCLUSIVITY

Does this technology have a built-in bias?

Do a brainstorm. Can you find a built-in bias in this technology? Maybe because of the way the data wascollected, either by personal bias, historical bias, political bias or a lack of diversity in the people responsible for the design of the technology? How do youknow this is not the case? Be critical. Be aware of your own biases.…

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