NAME: Electrify

DATE: September 5, 2024 7:34 PM

DESCRIPTION OF TECHNOLOGY

Infiniot asked our group to create software solutions for avoiding the problems caused by an overload and underload, as well as keeping users and providers informed with estimates and current usage of the system.

HUMAN VALUES

The users will be more aware of the electricity they are consuming while avoiding consulting with their electricity provider each time they want to see this information. It can be considered empowerment, as it allows the users to do something they are not usually able to do, but will not affect their identity as people of any sort.

TRANSPARENCY

The stakeholders are well aware of our idea of a software solution, including every aspect of it. They are well kept in the loop of the development and until this moment they are happy with our idea for solving the issue they gave us. When it is time for deployment of the final application user-friendly design will be one of the main priorities, while aiming to make it as accessible as possible.

IMPACT ON SOCIETY

In the current Dutch energy sector, the electricity supply monitoring is limited to only between providers and consumers, which includes only commercial electricity. The growth of self-produced electricity (renewable electricity) raises the question of how to avoid both under-capacity and over-capacity of an electrical grid, which are linked with additional costs.

STAKEHOLDERS

- Kenneth Ruys
- Ton Smets
- Gertjan Schouten
- Marcel Boelaars
- Tom Meulensteen

SUSTAINABILITY

The aim for deployment is to use a cloud service that will minimize the energy consumption, as no physical server will be used for the application. Another thing is that the application will not be constantly running to collect data on every user's technology.

HATEFUL AND CRIMINAL ACTORS

Being able to monitor your consumption and production of electricity, makes a point only in spy, which will not benefit the person stealing the information in any sort, as he will not be able to use the information for anything fraudulent.

DATA

The data we are collecting is data that will not be subject to any shortcomings or pitfalls, as it is only based on names, addresses, and emails, which are not something to be interpreted wrong.

FUTURE

The application will go to a larger scale, as our goal is to make it easily scalable while being able to handle the load of every household in the Netherlands (with the assumption that everyone will use it).

PRIVACY

Our technology solution collects limited personal data, which is name, address, email, and electricity meter code while storing it securely in Auth0 with encryption.

INCLUSIVITY

Our application does not bias anything while collecting data. The only bias that might be considered will be the AI running the algorithms based on the previous usage of a certain person's household. This will never harm anyone in any matter, as it is only used for predictions of consumption, which will only be estimated and not exactly accurate.

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 was collected, 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 you know this is not the case? Be critical. Be aware of your own biases.…