QUICKSCAN - CANVAS

Home Automation

NAME: Home Automation **DATE:** July 1, 2025 1:30 PM

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DESCRIPTION OF TECHNOLOGY

A personal assistant for my smart home, that communicates with OpenAI and maps the response to the corresponding Home Assistant service calls.

This enables the use of natural language to control your smart home.

HUMAN VALUES

The project does not influence the user's identity or create new ways for them to interact.

The project might create a risk of over-reliance on the technology for convenience's sake.



TRANSPARENCY

The user's data will be transmitted to OpenAI, But no further external transmissions will be made.

Documentation will be made available to the user.



IMPACT ON SOCIETY

The problem right now is that current voice assistants misinterpret commands and are not able to process them in a home automation context.

For people who want to control their smart Homes without frustration, it will be an improvement



STAKEHOLDERS

- Smart Home Residents



SUSTAINABILITY

The power consumption of a server can be high, although I can't mitigate it completely, I have solar panels that lessen the grid consumption during the day.

Indirectly, I will be sending requests to OpenAI, who also have to run servers.



HATEFUL AND CRIMINAL ACTORS

A malicious actor could open my gates, disable my cameras and potentially hop to other devices in my network.

It would also enable the actor to gather info about how my device ecosystem looks like.



DATA

By design, I rely on a third-party (OpenAI) for analysis. Any bias in their model will carry over to my application.



FUTURE

The big players (Google, Amazon, Apple) will presumably create a streamlined product more suited for less tech-savvy consumers.



PRIVACY

I do not keep any data that is not mine.



INCLUSIVITY

All built-in bias that is included in the OpenAl model will be present in my application. There is no workaround to this.

My application does allow movement impaired people to control devices in a more efficient way.



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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...

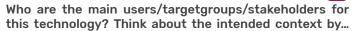
IMPACT ON SOCIETY



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



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....

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