NAME: Medido

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DATE: September 6, 2024 8:12 AM
DESCRIPTION OF TECHNOLOGY

Based on the data gathered by the Medido we want to discover trends and anomalies in a Medido user's behaviour, for example in which situation a user is likely to forget their medication. This can then be used by the care providers to improve their treatment of the user.

#### **HUMAN VALUES**



The user might not be comfortable with their data being used to predict their behaviour.

The user might also feel inadequate if they are seen by our algorithm as a user who needs extra help.

#### **TRANSPARENCY**



We will try to explain to the product owner how the algorithm works. The dashboard we are making should be easy to understand for future users.

## **IMPACT ON SOCIETY**



People using the Medido medicine dispenser should take their medicine when the alarm on the Medido rings. But some users are starting to take their medicine earlier or later then planned. If this happens on a regular basis their caretakers would like to get notified so they can intervene.

## **STAKEHOLDERS**



- Innospense
- Mindlabs
- Care providers using Medido
- Medido users

# SUSTAINABILITY



## HATEFUL AND CRIMINAL ACTORS



By manipulating data users our algorithm could say a user is behaving in a way where the care organization needs to intervene while this is not the case. Depending on how the care organization decides to respond this could be bad for a users health.

## **DATA**



There might not be enough data to correctly categorize behavior. The user might not have used the Medido long enough to see if their behavior changed significantly. Therefore, if people dont have enough data we can not make a prediction for them.

## **FUTURE**



The algorithm can be improved by adding more data. If the data per client is for a longer period of time, we could be able to see patterns in their behaviour. If these patterns are on a yearly basis for example, then at this moment it is too early to discover them. When other factors are an influence on peoples behaviour or maybe holidays, this would improve the accuracy as well.

## **PRIVACY**



We are trying to determine if a user behaves in an irregular way. This behavior might indicate a decline in health in the user.

To make sure the privacy of users is guaranteed the dashboard and data should only be shared with the care organization and Innospense.

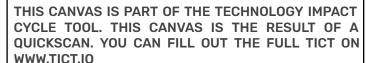
The data used in the algorithm does not contain any personal data but instead uses a client id.

## **INCLUSIVITY**



The algorithm is built with users of the Medido, these users are sick and receive care from a care organization. The algorithm cannot be used on people in other circumstances without a bias.

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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....

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