QUICKSCAN - CANVAS

Diabetes Prediction Tool

NAME: Diabetes Prediction Tool
DATE: September 5, 2024 6:47 PM
DESCRIPTION OF TECHNOLOGY
The objective of this classification assignment is to diagnostically predict whether or not a patient has diabetes, based on certain diagnostic measurements.

TICT

HUMAN VALUES

Thetechnology has nothing to do with the relationship between people, therefore it will not affect the interaction between people. The product will not replace a medical persona, but it can help medical personas identify the onset of diabetes. The technology does not affect a user's dignity and is not used to empower people, but to give people an easy way to be diagnosed for a treatable condition.

TRANSPARENCY

The technology is explained in an understandable way, the solution itself is also explained in a transparent way.

IMPACT ON SOCIETY

The problem that the project is aiming to solve is the big number of undiagnosed cases of people with diabetes. The created model will serve as a fast and convenient way to diagnose people.

STAKEHOLDERS

- Medical entities/hospitals
- People that are not diagnosed with diabetes, but are suspicious of having it
- Diabetes related associations

SUSTAINABILITY

The technology can be used by medical companies in order to provide medical persons with an automated recommendation regarding the onset of diabetes of a person. This means that the medical companies themselves will be taking care of the energy use when working with the tool.

HATEFUL AND CRIMINAL ACTORS

The amount of the data that the technology needs is minimal and the current solution created does not take in any parameters like name, address, etc. that are heavily personal and could be used to identify a person, therefore, there is a low chance of the technology breaking the law.

DATA

When creating the technology many factors were taken into account when finding, preparing, cleaning, manipulating and training the data so that the pitfalls of data could be avoided. This does not mean that the solution is perfect, but that the fundamental shortcomings are taken into account, and the technology was continuously worked on (and will be worked on) in order to improve.

FUTURE

In the future, this technology can become a dominant tool in the medical world helping medical professionals have an automated helper when it comes to diagnosing diabetes. This can mean that more people will be diagnosed and treated, since the time for diagnosis taken before, will go down drastically. In the future more data will be fed to the model and more elaborate and accurate solutions will be formed, which could lead to an automation of the whole process.

PRIVACY

The technology registers the age, the BMI, and the glucose levels of the person using it. This data cannot be used to identify a person easily, but since it is health-related data, extra care must be taken when creating the technology.

INCLUSIVITY

The data that was collected could be biased in a way that the two target groups (people with and without diabetes) were uneven, but that could be easily fixed with a more balanced data. Since this project is using open-source

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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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