




NAME: Hospital Readmission Predictor 

DATE: September 5, 2024 1:36 PM


DESCRIPTION OF TECHNOLOGY
An ai model with the ability to predict whether a patient has a high likelihood of being readmitted to the hospital

HUMAN VALUES 


The technology should aid in raising awareness of the importance of self care after having been through medical procedures(on the patients' side), as well as advise medical experts to revise their procedure, provided the patient is determined to have an increased risk of readmission

TRANSPARENCY 


Explanations of the innerworkings as well as the way to interact with the tool will be made apparent for the user through the documents presented.

IMPACT ON SOCIETY 


The problem at hand is one regarding the readmission of patients to hospitals due to various reasons. Some of these readmissions are mandatory, but some are deemed to be preventable. This is truly an increasing issue, as it can be a suggestion for the quality of care provided in a hospital. In addition to this, it has a great negative impact on both the costs as well as the health of the patient.

STAKEHOLDERS 


- Medical Professionals

SUSTAINABILITY 


The efficiency of the energy usage of the technology is a matter of the machine used to run the program on. Given that it is an AI model, the energy use can vary vastly and is redundant to attempt to be determined

HATEFUL AND CRIMINAL ACTORS 


The nature of the technology does not provide any direct way of breaking the law or avoiding it. It simply provides advice, based on the data it has been given

DATA 

Data is a fundamental part of the technology in question and part of the development has in scope this exact issue. Details of the handling of unclean or biased data will be made apparent during the development of the chapter of data cleaning as well as the EDA.

FUTURE 

An ideal outcome of the project would be to have its' development continued with the assistance of medical professionals in order to better develop the predictor. This as a result, could impact the readmission rates drastically by lowering them.

PRIVACY 

Depending on the way personal data is interpreted it can be stated that the technology does use data form patients. Although, the data is not linked to any individual person and therefore, should not really fall into the category of personal data


INCLUSIVITY 

The bias of the technology has a possibility of occurring due to the nature of the data. This will be handled accordingly in the chapter responsible for such development

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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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