QUICKSCAN - CANVAS

Machine learning

NAME: Machine learning

DATE: July 15, 2025 8:35 PM

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DESCRIPTION OF TECHNOLOGY

Prediction of wine quality using various machine learning algorithms. The models will train on physio-chemical data derived from samples of wines to determine their quality level.

quality of a wine (scored 1-10 or good/bad) based on physio-

chemical analysis. It can help customers, wholesalers, and

wine shops help choose wines to buy, and could help

HUMAN VALUES



TRANSPARENCY



The data collected can be explained in a white paper, but the exact workings of the model cannot be explained. The technology being machine learning means that it will find links and draw conclusions on its own, without human intervention or a way to explain what exactly those decisions are based on.

IMPACT ON SOCIETY

winemakers craft better wines.



STAKEHOLDERS



sommeliers are regarded as less important: that is if the

model turns out to be very accurate. However, as wine quality

is very much decided by personal taste, this would be very



- Wine shops/wholesalers
- Wine customers
- Winemakers

unlikely.

- Vineyard owners

SUSTAINABILITY



Direct energy is used for training the model(s) and powering the devices that use said models to make predictions. Indirectly, energy is used to gather the information necessary to train the models and do the analysis.

HATEFUL AND CRIMINAL ACTORS

the subjective part of the data en masse.

However, it could be possible to skew the data by mislabelling



DATA



FUTURE



Wine quality is very much a subjective thing. Objective People could get dependent on the judgement given by the measurements could be used to get a rough idea of the machine learning model and refuse to try something that has quality, but ultimately the experience of tasting it will not been recommended. As such it would be very hard to get recommended if you are a beginning winemaker or a determine whether or not a wine is of good quality. winemaker who has had struggles with quality in the past.

PRIVACY

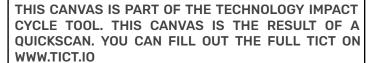


INCLUSIVITY



Assuming all data is purely physio-chemical and objective, no. But when subjective data is added, it could be skewed, since people from region A might not like wines from region B as much. Region B would be rated lower in that case, causing a

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The technology does not register personal data.

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

- 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...

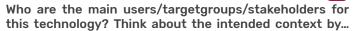
IMPACT ON SOCIETY



What is exactly the problem? Is it really a problem? Are vou 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 guickly 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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