Red Wine Prediction

This project is about making a tool that predicts how good red wine is based on its chemical makeup. By looking at things like acidity and alcohol content, the tool will tell users if a bottle of wine is likely to be high or low quality. It's helpful for wine producers, sellers, and drinkers to make better choices about wine

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Context of use: Education
Level of education: Bachelor

Impact on society

What impact is expected from your technology?

This category is only partial filled.

What is exactly the problem? Is it really a problem? Are you sure?

The problem this technology aims to solve is the difficulty in predicting red wine quality accurately. This affects everyone involved in the wine industry, from producers to sellers to consumers. It's a problem because inaccurate predictions can lead to wasted resources, disappointed customers, and missed opportunities for businesses. Solving this problem can make the wine world better by enabling smarter decisions.

Are you sure that this technology is solving the RIGHT problem?

This question has not been answered yet.

How is this technology going to solve the problem?

This question has not been answered yet.

What negative effects do you expect from this technology?

This question has not been answered yet.

In what way is this technology contributing to a world you want to live in?

This question has not been answered yet.

Now that you have thought hard about the impact of this technology on society (by filling out the questions above), what improvements would you like to make to the technology? List them below.

This question has not been answered yet.

Hateful and criminal actors
What can bad actors do with your technology?

This category is only partial filled.

In which way can the technology be used to break the law or avoid the consequences of breaking the law?
While technology like predictive modeling can be beneficial, it could potentially be misused. For instance, if someone manipulated the wine quality predictions to deceive customers into buying overpriced bottles, it could be illegal. Additionally, if the predictions were used to unfairly advantage certain wineries or manipulate market prices, it could break laws related to fair competition.

Can fakers, thieves or scammers abuse the technology?
This question has not been answered yet.

Can the technology be used against certain (ethnic) groups or (social) classes?
This question has not been answered yet.

In which way can bad actors use this technology to pit certain groups against each other? These groups can be, but are not constrained to, ethnic, social, political or religious groups.
This question has not been answered yet.

How could bad actors use this technology to subvert or attack the truth?
This question has not been answered yet.

Now that you have thought hard about how bad actors can impact this technology, what improvements would you like to make? List them below.
This question has not been answered yet.

Privacy

Are you considering the privacy & personal data of the users of your technology?

This category is only partial filled.

Does the technology register personal data? If yes, what personal data?

No, the technology does not register personal data. It focuses on analyzing characteristics of red wine to predict its quality. While it may process information about wine attributes, it does not involve collecting or storing personal information about individuals. Therefore, there are no privacy concerns related to personal data.

Do you think the technology invades the privacy of the stakeholders? If yes, in what way?

This question has not been answered yet.

Is the technology is compliant with prevailing privacy and data protection law? Can you indicate why?

This question has not been answered yet.

Does the technology mitigate privacy and data protection risks/ concerns (privacy by design)? Please indicate how.

This question has not been answered yet.

In which way can you imagine a future impact of the collection of personal data?

This question has not been answered yet.

Now that you have thought hard about privacy and data protection, what improvements would you like to make? List them below.

This question has not been answered yet.

Human values

How does the technology affect your human values?

This category is only partial filled.

How is the identity of the (intended) users affected by the technology?

it could affect users in different ways, for example:
- The technology changes how users approach wine selection, potentially leading to a shift in preferences and habits as they rely on predictions rather than personal taste alone.
- The website where users input wine characteristics to receive predictions creates a new way for people to interact with wine information and make informed decisions.

How does the technology influence the users' autonomy?

This question has not been answered yet.

What is the effect of the technology on the health and/or well-being of users?

This question has not been answered yet.

Now that you have thought hard about the impact of your technology on human values, what improvements would you like to make to the technology? List them below.

This question has not been answered yet.

Stakeholders
Have you considered all stakeholders?

This category is only partial filled.

Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by answering these questions.

Name of the stakeholder
Joseph Atallah is my main stakeholder in this project. In a red wine prediction project, stakeholders could include wine enthusiasts, wine sellers, sommeliers, wine producers.

How is this stakeholder affected?
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Did you consult the stakeholder?
No

Are you going to take this stakeholder into account?
No

Did you consider all stakeholders, even the ones that might not be a user or target group, but still might be of interest?
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Now that you have thought hard about all stakeholders, what improvements would you like to make? List them below.
This question has not been answered yet.

Technology Impact Cycle Tool

Red Wine Prediction

Data
Is data in your technology properly used?

This category is only partial filled.

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into account in the technology?
I know about the data challenges in wine prediction. Sometimes the data can be biased, incomplete, or just not good quality. Models can also get too complicated or too simple, leading to wrong predictions. And trends in wine preferences can change, making old models outdated. But we've got ways to handle these issues, like cleaning up the data, picking the right features, and regularly checking how well the model is doing.

How does the technology organize continuous improvement when it comes to the use of data?
This question has not been answered yet.

How will the technology keep the insights that it identifies with data sustainable over time?
This question has not been answered yet.

In what way do you consider the fact that data is collected from the users?
This question has not been answered yet.

Now that you have thought hard about the impact of data on this technology, what improvements would you like to make? List them below.
This question has not been answered yet.

Inclusivity

Is your technology fair for everyone?

This category is only partial filled.

Will everyone have access to the technology?
This question has not been answered yet.

Does this technology have a built-in bias?
Predictive models are trained on existing data, which may reflect biases. For example, if the data used to train the model is biased towards certain types of wine or preferences, the predictions it makes may not accurately represent the diverse tastes of consumers. This bias can lead to unfair outcomes, such as favoring certain wineries or types of wine over others, and may impact decision-making in the wine industry.

Does this technology make automatic decisions and how do you account for them?
This question has not been answered yet.

Is everyone benefitting from the technology or only a a small group? Do you see this as a problem? Why/why not?
This question has not been answered yet.

Does the team that creates the technology represent the diversity of our society?
This question has not been answered yet.

Now that you have thought hard about the inclusivity of the technology, what improvements would you like to make? List them below.
This question has not been answered yet.

Transparency

Are you transparent about how your technology works?

This category is only partial filled.

Is it explained to the users/stakeholders how the technology works and how the business model works?

Yes, the users and stakeholders are informed about how the technology works and how the business model operates. The project includes a prototype of a user-friendly website where users can input characteristics of red wine to receive a quality prediction. The website processes this data using a predictive model and generates a quality rating. The website explains how it calculates the quality rating so users understand why the prediction is made.

If the technology makes an (algorithmic) decision, is it explained to the users/stakeholders how the decision was reached?

This question has not been answered yet.

Is it possible to file a complaint or ask questions/get answers about this technology?

This question has not been answered yet.

Is the technology (company) clear about possible negative consequences or shortcomings of the technology?

This question has not been answered yet.

Now that you have thought hard about the transparency of this technology, what improvements would you like to make? List them below.

This question has not been answered yet.

Sustainability

Is your technology environmentally sustainable?

This category is only partial filled.

In what way is the direct and indirect energy use of this technology taken into account?

In what way is the direct and indirect energy use of this technology taken into account?

Do you think alternative materials could have been considered in the technology?

This question has not been answered yet.

Do you think the lifespan of the technology is realistic?

This question has not been answered yet.

What is the hidden impact of the technology in the whole chain?

This question has not been answered yet.

Now that you have thought hard about the sustainability of this technology, what improvements would you like to make? List them below.

This question has not been answered yet.

Technology Impact Cycle Tool
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Future
Did you consider future impact?

This category is only partial filled.

What could possibly happen with this technology in the future?
If millions of people start using this wine prediction tool, it could shake up how we think about wine. Imagine everyone from casual drinkers to wine experts relying on it to pick bottles. It might change what wines become popular and how much they cost. But there could be downsides too, like less trust in personal taste and maybe even fewer unique wines if everyone just goes for what's predicted to be good

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one utopian scenario.
This question has not been answered yet.

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one dystopian scenario.
This question has not been answered yet.

Would you like to live in one of this scenario's? Why? Why not?
This question has not been answered yet.

What happens if the technology (which you have thought of as ethically well-considered) is bought or taken over by another party?
This question has not been answered yet.

Impact Improvement: Now that you have thought hard about the future impact of the technology, what improvements would you like to make? List them below.
This question has not been answered yet.