QUICKSCAN - CANVAS

Airbnb price predictive model

NAME: Airbnb price predictive model
DATE: May 8, 2021 1:02 AM

DESCRIPTION OF TECHNOLOGY
A predictive model, that will help hosts by predicting as accurately as possible the price with the highest profit of a new listing in Airbnb given its attributes. Furthermore, it is also expected to increase the lease on Airbnb.

HUMAN VALUES

The new system does not affect anything about the way that the identity of the user is influenced, which is different from the current system.

TRANSPARENCY

Each step of the technology will be clarified transparently for each phase through the project by Jupyter notebooks.

IMPACT ON SOCIETY

A prediction tool, that will help the host by predicting as accurately as possible the price of a new listing in Airbnb given its attributes. As soon as attributes are filled, the model will compare attributes with similar data and predicts the best accurate price according to the features of the property. In the meantime, the model will count overpricing and underpricing issues to keep the highest profit for the host.

STAKEHOLDERS

- Host
- Tenant
- Airbnb

SUSTAINABILITY

This technology will use Google cloud services. According to Google, they invest in renewable energy in order to make their data centers more environmentally.

HATEFUL AND CRIMINAL ACTORS

The prediction model will not set the price by itself but will offer an advised price to the host, in order to find the best price for their properties. Therefore, I do not expect any breaking law issues from this model. However, it is counted that the model will affect free-market rates by predicting prices instead of human beings.

DATA

The data contains only the instant price of the time it was scrapped. Therefore offers or price increases on holidays or special occasions are not available in the data. Moreover, missing values and outliers will be taken into account to avoid pitfalls in order to keep models performing as expected.

FUTURE

Utopia
The model can be extended for the other cities as well. Increasing on rented houses can be observed via the model.

Dystopia
Long-term leases local may be adversely affected by the increase in short-term rentals. Landlords may avoid long-term leases or increase their property prices further.

PRIVACY

The personal data in this model can be named as the name of the host and the coordinates of the house which are already public and accessible on the Airbnb official website to the visitors.

INCLUSIVITY

There is not any data in this technology that can be caused discrimination and bias.

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QUICKSCAN - CANVAS - HELPSIDE

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HUMAN VALUES

How does your technology affect the identity of users?

To answer this question think about sub questions like: Can the technology be perceived as stigmatising? Does the technology imply or impose a certain belief or world view? Does the technology affects users' dignity? Is the technology in line with the person the user wants to be perceived as?

TRANSPARENCY

How is it explained to the users about how a technology works and how the business model works?

Is it easy for users to find out how your 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 business model works?

IMPACT ON SOCIETY

What is the challenge at hand? What problem (what 'pain') does this technology want to solve?

This technology is designed to solve a problem. That is why it is important to exactly define which problem this technology is going to solve. Can you make a clear definition of the problem? What 'pain' does this technology want to ease? Whose pain? The problem definition will help you to determine and discuss if you are solving the right problem.

STAKEHOLDERS

Who are the main users/targetgroups/stakeholders for this technology?

For the Quick Scan, you only have to list the stakeholders. Can you think of the people that are directly or indirectly affected by this technology? There are a lot of stakeholders that are obvious (like users) but we invite you also to think about the less obvious ones. Missing a stakeholder can have great consequences.…

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.

HATEFUL AND CRIMINAL ACTORS

In which way can this technology be used to break the law or avoid the consequences of breaking the law?

Can you imagine ways that this technology can or will be used to break the law? Think about invading someone's privacy. Spying. Hurting people. Harassment. Fraud/identity theft and so on. Or will people use this technology to avoid facing the consequences of breaking the law (using trackers to evade speed radars or using bitcoins to launder money, fo…

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. Data is always subjective. Data collections are never complete. Correlation and causation are tricky concepts. Data collections are often biased. Reality is way more complex than a million datapoints. Are you aware of these issues? How does this technology take these issues into account?…

FUTURE

What could possibly happen with this technology in the future?

Discuss this quickly and note your first thoughts here.

PRIVACY

Does this 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. 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 this technology collects special personal data (like health or ethnicity) you should be extra…

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 wascollected, 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 youknow this is not the case? Be critical. Be aware of your own biases.

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