IMPROVEMENTSCAN - CANVAS

Airbnb price predictive model

NAME: Airbnb price predictive model

DATE: May 8, 2021 1:01 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 main goal of the project is to keep safety and transparency to avoid harming human values. The process will be transparent about the kind of data used and any shortcomings of the software(e.g, data bias), and the scraped data is reliable and valid. Therefore, it is not being expected to change anything on human values.

TRANSPARENCY

I would like to clarify each step clearly what is done for what purpose.

IMPACT ON SOCIETY

I would like to inform the host that the price is provided by the system is the best accurate advised price and it is not mandatory to use the price in their listings. Thus, if the price doesn't satisfy the hosts, hosts could price listings whatever they want.

STAKEHOLDERS

I will create a model so that can offer the best price for both the tenant and the landlord, besides increases the lease on Airbnb.

SUSTAINABILITY

The main issue regarding sustainability in regard to this technology is the energy used for inputting and processing the data. By inputting and processing the data in fixed time intervals as opposed to constantly working with the data will help reduce the energy consumption, thus becoming more environmentally sustainable. Since this is technology is data-driven there is no specific lifespan, meaning that as long as there is relevant data the technology can continue working.

HATEFUL AND CRIMINAL ACTORS

After considering the various nefarious means that this data can be used for, the system will be using in the Airnbn while listing the property therefore, it would be safe with Airbnb since the security policies of Airbnb would protect the system and prevent accessing the bad actors.

DATA

The dataset is incomplete; this could be improved upon. I would advise Airbnb to have a better data collection system, to gain more benefits from AI systems. For now, this means that we have certain limitations to the system. Price changes on neither holidays nor festivals and sports competitions. So the best price prediction would be not as accurate as desired.

FUTURE

The ideal conditions, perfect predictions for all the properties. This would provide more trust in the predictive model. I would have a system where the technology would greatly aid the hosts and tenants but still be just a second measure to the real thing. In the worst conditions, a technology not very good at predicting the best price but hosts still trust it and can lose profit. They can be mislead to use the technology.

PRIVACY

The data is already public and accessible online on Airbnb. I am not in charge to keep data private. However, I am still responsible for the data that I use for the model, and the hostname which is not useful for predicting the price will be avoided using. Moreover, I will use the coordinates to reach the nearest accompanies to predict the best price for that neighborhood.

INCLUSIVITY

I would like to make this project applicable in other cities, not limiting to Amsterdam.

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TICT

HUMAN VALUES

Now that you have thought hard about the impact of your technology on human values, what improvements…

If you think about the impact of this technology on human values and needs. If you think about how this technology affects the identity of the user, the autonomy of the user (can the users make their own decisions?) and the health and well-being of the user. If you think about all that, what improvement would you (want to) make? In the technology?…

TRANSPARENCY

Now that you have thought hard about the transparency of this technology, what improvements would you like t…

If you think about the communication on the way the technology works and the businessmodel. If you think about the explanation on automatic decisions that are made. If you think about complaint procedures and transparency on possible negative effects. If you think about all that, what would you (want to) improve? In the technology? In context?…

IMPACT ON SOCIETY

Now that you have thought hard about the impact of this technology on society, what improvements would you…

If you think about the real problem this technology is going to solve. If you think about the ability of this technology to solve the real problem. If you think about possible negative effects and wether this technology will contribute to a world you want to live in. If you think about all that, what improvements would you make? In technology? In context? In use?…

STAKEHOLDERS

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them…

If you think about all stakeholders of this technology. If you think about stakeholders that are less obvious. If you think about the way certain stakeholders are affected by this technology and if you want to take them into consideration. If you think about all that, what would you (want to) improve? In the technology? In context? In use?…

SUSTAINABILITY

Now that you have thought hard about the sustainability of this technology, what improvements would you like t…

If you think about the direct and indirect energy use and the materials that are used in this technology. If you think about the lifespan of the technology and the hidden environmental impact of the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?…

HATEFUL AND CRIMINAL ACTORS

Now that you have thought hard about how bad actors can impact this technology, what improvements would…

If you think about this technology being used to break the law, or avoid the consequences of breaking the law, or to be used against certain groups, or to attack the truth or to pit certain groups against each other. If you think about all of that, what improvements would you (want to) make? In the technology? In context? In use?…

DATA

Now that you have thought hard about the impact of data on this technology, what improvements would you…

If you think about the limitations of data. Things like subjectivity, incomplete datasets and so on. If you think about the way new insights are handled. If you think about the sustainability of the collection of data or the data that is collected from the users. If you think about all that, what would you (want to) improve? In the technology? In context?…

FUTURE

Impact Improvement: Now that you have thought hard about the future impact of your technology, what…

If you think about an utopian and a dystopian scenario. If you think about the way this technology can change the world. If you think about the consequences of a different party buying your technology. If you think about all that, what would you (want to) improve? In the technology? In context? In use? …

PRIVACY

Now that you have thought hard about privacy and data protection, what improvements would you like to make?…

If you think about this technology invading someone's privacy or collecting personal data and if you think about the way this technology is compliant with prevailing law and mitigates dataprotection risks and concerns. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?…

INCLUSIVITY

Now that you have thought hard about the inclusivity of this technology, what improvements would you like to…

If you think about accessibility to this technology. If you think about built in biases or automatic decisions that may be biased. If you think about who is benefitting from this technology and the diversity of the team that creates the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?

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