


**NAME:** Data Science 

**DATE:** September 5, 2024 10:27 PM


**DESCRIPTION OF TECHNOLOGY**  
 Predict Natural Disaster using Satellite Imagery Data

**HUMAN VALUES** 


Users could be over-rely on it in predicting an upcoming disaster. For example, if there is some problems in the predicting system that can not fix in time, it could cause serious effects.

**TRANSPARENCY** 


The idea has been clearly explained. However, it could be a trouble for people to adopt this new technology in to work.

**IMPACT ON SOCIETY** 

AI can predict the occurrence of numerous natural disasters using massive amounts of high-quality datasets, which can mean the difference between life and death for thousands of people. Earthquakes, floods, hurricanes, and other natural disasters can all be predicted using satellite data.

**STAKEHOLDERS** 


- Everyone in need of disaster predicting technique
- Notification center from the government or an organisation of a country

**SUSTAINABILITY** 


The idea is to implement this project as an mobile application. It will not affect much on the energy efficiency part because all the model need to pretrained clearly.

**HATEFUL AND CRIMINAL ACTORS** 


Because it will use satellite data so it may affect some country policy in sharing their data worldwide.

**DATA** 


Currently, the data constantly update from the space. In the worst scenario, there could be some technical problems with the satellite and can affect the updating process.

**FUTURE** 

People can use the information provided by this technology to prepare countermeasure against certain natural disasters.

**PRIVACY** 

No

**INCLUSIVITY** 

Not sure at this time

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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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