


NAME: Rekening Rijden Luxemburg (G3)


DATE: July 12, 2025 4:27 AM

DESCRIPTION OF TECHNOLOGY

Automated road pricing system for luxemburg. Bills are generated automatically. Users can get an overview of their trips and pay online. Interpol can investigate stolen cars.




HUMAN VALUES




If implemented correctly, all users should be completely anonymous.

TRANSPARENCY




To make the received invoices more transparent to the end-users, the application shows the route driven. It's also going to be easy for the end-user to look up prices for different kinds of roads and countries.

IMPACT ON SOCIETY



There are many different systems with tedious payment method for road taxing. Each country has its own system that must be investigated by the drivers

STAKEHOLDERS




- Interpol

- Government organisation (in charge of road pricing)


- Drivers

SUSTAINABILITY




We don't produce the tracking devices. But by introducing road pricing to the public, people will be more selective about where and when they drive. This will result in less traffic which is better for the environment.

HATEFUL AND CRIMINAL ACTORS



The system will contain sensitive data of real-time and history car locations. If the security is breached, one could find out where a certain car is at any time. If the car-tracker is disabled, one could drive without paying road tax.

DATA




The data in this technology are coordinates received from a gps, this generally works very well. However a gps is not 100% accurate all the time, so this should be taken into account.

FUTURE




PRIVACY



Yes, location data is linked to the car registration.


INCLUSIVITY





There is always some bias in technology. In our project, there will be a certain bias in the pricing of different roads.

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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...


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...


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...

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?...

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.

...

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;...


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....


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...


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?

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?

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