NAME: FHICT - Seclab improvment and research
TICT

DATE: May 13, 2025 11:22 PM

DESCRIPTION OF TECHNOLOGY
A project meant to create a dashboard and orchestration method for the Seclab environment used by the Fontys university. This system is used by students to access school hosted VMs.

HUMAN VALUES

Real-world identity is not affected in this project. No belief or view is pushed onto the users of this project.
However, one could argue that the 'online'-identity will be altered by anonymizing the data since every user has their own username, only known to the specific user and network administrators.

TRANSPARENCY

Students are first told about the Seclab at the beginning of the Cyber Security specialization.
They are told that everything is monitored multiple times. Also when you are connected through the VPN.
Our to be developed technology will be explained in a similar way, and might even have the source code available to students.

IMPACT ON SOCIETY

It is trying to solve the problem of sharing information about the state of the Seclab environment used by the Fontys University and make it more manageable through an interactable dashboard. Also, it automates the deployment of the VM rollout, permission management and access rights.

STAKEHOLDERS

- Donovan van Hout
- Stefan Beekwilder
- Casper Schellekens
- Miss Wolden-Kea
- Students
- Stephan Vreijsen
- Cyber security teachers

SUSTAINABILITY

This does not affect the environment. All energy used is electrical and most likely green based.

HATEFUL AND CRIMINAL ACTORS

In this case, the platform and technologies that we will be using could be used by students to prank, break or influence their rights inside the system. This would constitute breaking the rules of the University. In a worse situation, the access to the system may grant the abuser access to the emails of students or teachers and their credentials. Which in turn can be used for phishing and other malicious activities.

DATA

At this point, the limitations of data are if we aren't able to get the data from the entire seclab-system and all the VM's that are running. But we can only know this for sure once researching/testing statistical outputs.

FUTURE

The dashboard is meant to be used by future students to help them understand the system better and for the administrators to fully be able to improve it.

PRIVACY

Not really, it monitors the data of the entire environment and the machines that the user is using. Therefore the dashboard is meant to be an open disclosure tool. The orchestration tool is meant to be used only by managers as such it does have to preserve the data they produce so if that data and credentials are leaked this could lead to more major problems.

INCLUSIVITY

Yes, by design it is used for monitoring and the Administrators are the ones that decide which students need this to use. But it is not biased based on gender, societal role, or ethnicity but rather on system permissions. Additionally, there can be a cyber security student bias as they are the most likely to affect the system negatively. Finally, there is a data bias toward useful data.

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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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