QUICKSCAN - CANVAS

API Redesign - Containers - Automation

NAME: API Redesign - Containers - Automation
DATE: September 6, 2024 12:08 PM

DESCRIPTION OF TECHNOLOGY
We are trying to implement determine new infrastructure that is compatible with the current environment but also makes new developments such as hosting containers

HUMAN VALUES

The technology doesn't affect the identity of the user to my knowledge.

TRANSPARENCY

The user can have little understanding of how virtual machines works and with a little bit of research, mainly using googles documentation and videos in order to understand the basic functionality.

IMPACT ON SOCIETY

The current problem of the virtual network is the occasional bad performance and cluster of unused machines created by students in SecLab that can create difficulties for other stundets when using the network. Another problem is the slow rollout of new functionality for the network. All of this this also makes the lab's performance unpredictable and difficult to manage. Lecturers and students would benefit the most of this problem solution.

STAKEHOLDERS

- Donovan van Hout - network manager lab environment
- Casper Schellekens - innovation owner of ICT & Cyber Security
- Stefan Beekwilder - network manager lab environment
- Kea Klaassen-ten Wolde - operational team leader II&A
- Stefan Roijers - coordinator cybersecurity semester 4.

SUSTAINABILITY

Containers are like virtual machines, but unlike them they operate are much faster and not that taxing on machines. They require less resources because they dont include operating system images.

HATEFUL AND CRIMINAL ACTORS

If a team that works on the problem with unethical intentions gains access to the administrative rights of SecLab , they could potentially disrupt students performance in there , or worse they can try to track down theyr public ip address and invade their privacy, also any information that is stored in the SecLab database can be then used for harmful purposes

DATA

Unfortunately, container images arent without security risks. Container images may sometimes suffer from vulnerabilities. Maliscious actors could abuse a vulnerability in sqlite3 3.26.0 to send a malicious SQL command via remote code execution. Also they can create lookalike images public containers to prey upon your organization. In this type of attack, a user pulls a container image that secretly contains malicious code from a registry.

FUTURE

Because of how fast and lightweight containers are their participation in cloud coumputing and new apps would continue to increase.They will become an essential part of cloud computing.

PRIVACY

No, this technology doesnt use personal data at all. The users are only required to enter a username and password provided for them by Fontys. I am not aware of any implications that can happen regarding privacy legislation, the only possible invasion of privacy is if the administrators are able to directly monitor the activity of the students on the site.

INCLUSIVITY

I suppose the groups of people that are working on this technology are quite diverse, because Google is one of the biggest inernational companies in the world and i havent heard of political or ethnical bias in their work. There are rumors for privacy invasion from them, but nothing is confirmed yet.

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QUICKSCAN - CANVAS - HELPSHEET API Redesign - Containers - Automation

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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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