QUICKSCAN - CANVAS

Cenaco

NAME: Cenaco
DATE: May 15, 2026 1:47 PM

DESCRIPTION OF TECHNOLOGY
Using the natural convection of heated and cooled water to move heat away from a data center heat source, without the use of additional energy.

HUMAN VALUES

The server building company that may use this product can use it to justify themselves as a climate consious company, seeing as they reduce potential energy consumption of the centers they build. However, the other 80% of energy consumed in the data centre is not addressed. This could be seen as a type of "greenwashing", and would falsely put the company in an overly positive light.

TRANSPARENCY

As the product is rather simple, and it operates constantly, there is very little involved in it. It required some maintenance and monitoring, but very little specialised knowledge. The energy saving potential is quite frankly the biggest feature of the technology, and therefore will be the sole focus of any user, investor or other stakeholder.

IMPACT ON SOCIETY

The processors in data centers produce a lot of heat during use. This heat needs to be extracted and moved elsewhere. Using cooled air, mechanically pumped water or other traditional means of heat transportation takes energy. Seeing as the energy consumption of a data center is already quite high, reducing this in any way is a positive thing

STAKEHOLDERS

- Server builders
- Server owners
- server maintenance technicians
- production companies
- The Fontys institute
- Lawmakers / local government
- heat management specialists

SUSTAINABILITY

As the product is an energy saving measure that does in itself not use any power, the energy saving is a positive impact on the system it is applied in. The only real energy consumption of the product exists in production, but that is no different than any other product.

HATEFUL AND CRIMINAL ACTORS

The uses of the data centers that the product can be installed in could be used with malintent. This would however not be any direct result of the use of the product, simply a misuse of the system that this makes a small part of. (like a screw can be used to build a gun, this component cannot directly be used for harm)

DATA

not relevant for a mechanical component

FUTURE

The technology has the potential to help shape data centers and servers into a new more energy efficient future, where the climate is taken account, instead of only raw performance figures and profits.

PRIVACY

The part is entirely mechanical, and does therefore not interact with, produce or store any type of data.

INCLUSIVITY

The product does not decrease the power consumption of a data center directly, but only that part of power that would otherwise be consumed by cooling equiptment. This could also free up power for more servers, which in turn somewhat defeats the purpose entirely.

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THIS CANVAS IS PART OF THE TECHNOLOGY IMPACT CYCLE TOOL. THIS CANVAS IS THE RESULT OF A QUICKSCAN. YOU CAN FILL OUT THE FULL TICT ON WWW.TICT.IO

QUICKSCAN - CANVAS - HELPSIDE

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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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