QUICKSCAN - CANVAS

web tool

NAME: web tool

DATE: December 27, 2025 5:45 PM

DESCRIPTION OF TECHNOLOGY

Dit project is een innovatief warehouse management platform dat focust op het optimaliseren van orderkwaliteit. Het systeem combineert een centraal webplatform met draagbare scanners (gebaseerd op Raspberry Pi's) om het orderpick-proces te digitaliseren en te verbeteren. In plaats van te vertrouwen op schattingen, wordt technologie ingezet om elke pallet perfect op te bouwen.

HUMAN VALUES

this tool does ensure that all employees from the intended users have a centralism tool that can be upgraded for more automatizations

TRANSPARENCY

Yes, explanations are tailored by role. Order pickers rely on self-explanatory 3D visuals, bypassing technical jargon for intuitive use. Stakeholders see a clear business model based on tangible ROI: replacing expensive proprietary hardware with low-cost web devices and significantly reducing transport damage costs.

IMPACT ON SOCIETY

In many warehouses, stacking pallets relies on the insight of order pickers. Efficiently stacking boxes of varying dimensions and weights resembles a complex '3D Tetris' puzzle. Relying solely on intuition can result in sub-optimal patterns, such as heavy boxes on light ones or unstable columns that may fall during transport. Additionally, warehouse layouts are often unoptimized, leading to unnecessary travel for employees.

STAKEHOLDERS

- Logestics companies
- Retail companies
- wholesaler companies

SUSTAINABILITY

We minimize direct energy by using low-power Raspberry Pis instead of heavy industrial terminals. Indirectly, the impact is significant: our stacking algorithm prevents product damage, eliminating the fuel and energy waste of re-shipping and re-manufacturing, while smart routing reduces unnecessary internal transport.

HATEFUL AND CRIMINAL ACTORS

it can been use to steal the company that use this tool / fraude the governement & company

DATA

We address data risks like incorrect dimensions causing unstable stacks by prioritizing safety over theoretical perfection. Our algorithm adds tolerance margins and enforces strict weight rules (heavy items at the bottom) to handle physical anomalies. Finally, the human picker serves as a quality check, using the visualization to spot data errors or packaging issues the software misses.

FUTURE

it can been integrated with automatisation tool or robotics (industries 4.0)

PRIVACY

yes and no, the tool does only contain some data from employees but not the clients of the company that uses the tool and for the clients of the client when anonymizing the user and only holds an ID and the list of orders that they have

INCLUSIVITY

Yes, the algorithm prioritizes mathematical stability over ergonomics, potentially creating stacks too high for shorter workers. Additionally, the exclusive reliance on visual 3D instructions creates an accessibility bias against employees with visual impairments or color blindness, requiring audio alternatives to ensure inclusivity.

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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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