QUICKSCAN - CANVAS

Dozy, a sleep forecast web app

NAME: Dozy, a sleep forecast web app

DATE: November 25, 2026 8:19 AM

DESCRIPTION OF TECHNOLOGY

Dozy is a web app that forecasts how long someone will sleep the next night. The user uploads an Apple Health export and answers four short questions, and Dozy shows the forecast in hours and minutes.

HUMAN VALUES

Dozy gives people a number about their own body. Some people may start to see themselves as a bad sleeper because of it. If the forecast says 6 hours, someone might feel worried before the night even starts. The gender question only offers male and female, so people who do not fit those options may feel left out. On the positive side, Dozy can help people understand their sleep and feel more in control.

TRANSPARENCY

Partly. The page About the model explains which inputs the model uses and that it learned from Fitbit data. The forecast card shows the average error of about 50 minutes and compares the forecast with the users recent average. The upload window shows which values came from the export and which ones are still missing. Dozy does not explain yet why a forecast is high or low.

IMPACT ON SOCIETY

Many people do not know how long they will sleep tonight, and sleep trackers only show what already happened. Dozy gives people a forecast for the coming night, so they can see if a short or long night is coming and plan around it. For most people this is a small problem, not a serious one. Doctors and sleep coaches can help with real sleep problems much better than an app can. Dozy mostly helps people understand their own sleep pattern.

STAKEHOLDERS

- People who are interested in their own health, between ages of 20-40

SUSTAINABILITY

Dozy uses very little energy. I trained the model once, and the model file is smaller than 1 MB. A forecast takes less than a second on a normal laptop. Dozy runs on the users own computer, so it needs no server or cloud service that runs all day.

HATEFUL AND CRIMINAL ACTORS

Dozy does not store any data and has no accounts, so the risk is low. Someone could still misuse it. A person could upload the Health export of a partner or family member without asking and look at their sleep and heart rate. That would invade their privacy. An employer or an insurance company could also use sleep forecasts to judge people, which is unfair and in some cases illegal.

DATA

Yes. The model learned from only 14 people in the PMData dataset, so it cannot represent everyone. A lot of the data comes from self reports, and every person answers those in their own way. Some nights had no report, and I had to fill in those gaps with estimates. The model finds patterns, not causes. Sleep also depends on things the data does not show, like alarms, stress or plans.

FUTURE

If 100 million people used Dozy, many of them might trust the forecast more than their own feeling. People could start to plan their evening around a number that can be off by about 50 minutes. Some people might even sleep worse because they worry about the forecast. Companies could want the data to sell products or to judge employees. On the positive side, more people could learn about their sleep habits, like the effect of weekends and routines.

PRIVACY

Yes. Dozy reads health data. From the Apple Health export, Dozy reads sleep times, resting heart rate and the gender in the Health profile. The user also fills in sleep type, morning freshness and morning readiness. Dozy handles all of this on the users own computer. It does not save the export and does not keep a history of forecasts. It has no accounts, no tracking and no analytics.

INCLUSIVITY

Yes. Most PMData participants are men, so the model probably works better for men than for women. The participants are a small group of adults from one research project in Norway, with fairly similar lives. People with night shifts, young children or irregular schedules do not appear in the data, so the forecast may be wrong for them.

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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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