DietCheckr

DietCheckr is a web application that will help our users improve their health and lifestyle by keeping track of their daily intake. This app will be GDPR proof and completely anonymous.

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Context of use: Education
Level of education: Bachelor

Technology Impact Cycle Tool

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Impact on society

What impact is expected from your technology?

This category is only partial filled.

What is exactly the problem? Is it really a problem? Are you sure?

A lot of diet applications do not offer the possiblity to show all micro and macro nutrients of food to the users. Our users will also be a part of one or more researches conducted by researches, students and teachers of the study nutrition and dietetics. This app will help them keep track of their users and coach them for a better and healthier lifestyle by extracting data in an automatic and easy way..

Are you sure that this technology is solving the RIGHT problem?

Students of nutrition and dietetics came to us and asked for our help to create this application because a lot of apps didn't have the right tools to help them for better coaching. We want to create a service, which is optimal for them and eventually for other dietetics.

How is this technology going to solve the problem?

It will be possible to implement each macro and micro nutrients in our application, which will give users a clear overview of everything they take in. The researchers can then easily analyse this data.

What negative effects do you expect from this technology?

There are a lot of micro and macro nutrients. It will make our application complete, but maybe a little too complex and not so easy to understand for the users.

In what way is this technology contributing to a world you want to live in?

This application will firstly help students to not lose a lot of time by manually inserting data. This will also help users to keep a better track of their daily intake, which can considerably increase their health.

Now that you have thought hard about the impact of this technology on society (by filling out the questions above), what improvements would you like to make to the technology? List them below.

This question has not been answered yet.

Hateful and criminal actors
What can bad actors do with your technology?

In which way can the technology be used to break the law or avoid the consequences of breaking the law?
There will be a lot of personal data from our users that could be used or sold for commercial reasons.

Can fakers, thieves or scammers abuse the technology?
Thieves could steal the data of our users and try to sell them for commercial ends.

Can the technology be used against certain (ethnic) groups or (social) classes?
Our users will be from everywhere and from any age. Even though their name would be made anonymously, they will be conducted in certain researches for specific groups. For example users between 50-60 years old, or people with obesity. This could be used against them if our data would leak.

In which way can bad actors use this technology to pit certain groups against each other? These groups can be, but are not constrained to, ethnic, social, political or religious groups.
Body shaming is not a new phenomenon and could be a problem between certain groups.

How could bad actors use this technology to subvert or attack the truth?
The application uses the email-adres from our users. The rest is anonymous. If this could leak, they could be spammed.

Now that you have thought hard about how bad actors can impact this technology, what improvements would you like to make? List them below.
Restrain hacking attempts by limiting how many times you can try to login by using a wrong password. Automatically sending an email to change password after failing a number of times.

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Privacy

Are you considering the privacy & personal data of the users of your technology?

This category is only partial filled.

Does the technology register personal data? If yes, what personal data?

Our app keeps a daily track of food intake for each user. They keep also the emails of our users. Their name remains anonymous.

Do you think the technology invades the privacy of the stakeholders? If yes, in what way?

No, we are making sure that the data remains intact. Researchers and admins do not have access to the personal data (email) of our users. Only people accessing our database have access to their emails.

Is the technology is compliant with prevailing privacy and data protection law? Can you indicate why?

Users have to accept the GDPR rules, which are essential before registering. Their will be also privacy, processing and license conditions.

Does the technology mitigate privacy and data protection risks/ concerns (privacy by design)? Please indicate how.

We mitigate the risks by not keeping any names in our database. It will be protected by using an UUiD. We keep emails to keep our users updated about their research and send them the reports. Emails will not be visible to researchers or admins.

In which way can you imagine a future impact of the collection of personal data?

Bodyshaming is still an issue in our society. Even though we would not keep secrets of certain people. A leak could potentially be embarassing for certain people. Like we said before, there would not be any names or emails publicly available, only emails will be stored in our database.

Now that you have thought hard about privacy and data protection, what improvements would you like to make? List them below.

This question has not been answered yet.

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Human values

How does the technology affect your human values?

This category is only partial filled.

How is the identity of the (intended) users affected by the technology?

Our webapplication will help user to keep track of their food intake and lifestyle. They will be assigned to a research and will be coached by one or more researchers to improve their lifestyle. It could change people in a positive way by giving them motivation and a clear overview of what to change.

How does the technology influence the users' autonomy?

It will empower users to increase their lifestyle. They have to send in everytime they ate or drank something. This will be reported to researchers and will be analysed. They have to follow a certain plan to achieve certain goals.

What is the effect of the technology on the health and/or well-being of users?

It could be stressful to change their lifestyle and could eventually cause certain eat disorders or just help their eating disorder. It will mostly have a very positive impact on their health.

Now that you have thought hard about the impact of your technology on human values, what improvements would you like to make to the technology? List them below.

This question has not been answered yet.

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Stakeholders

Have you considered all stakeholders?

This category is not applicable for this technology.

Data

Is data in your technology properly used?

This category is only partial filled.

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into account in the technology?
By asking clear questions, we avoid having misunderstandings in our data.

How does the technology organize continuous improvement when it comes to the use of data?
This question has not been answered yet.

How will the technology keep the insights that it identifies with data sustainable over time?
This question has not been answered yet.

In what way do you consider the fact that data is collected from the users?
This question has not been answered yet.

Now that you have thought hard about the impact of data on this technology, what improvements would you like to make? List them below.
This question has not been answered yet.

Inclusivity
Is your technology fair for everyone?

Will everyone have access to the technology?
In the beginning we aim for our application to be used by students studying dietetics. In the future our application aims to be sold to all dietitians and their customers.

Does this technology have a built-in bias?
From our point of view we have no built-in bias in our application because anyone with legal access to our application can use it.

Does this technology make automatic decisions and how do you account for them?
No, it will not.

Is everyone benefitting from the technology or only a a small group? Do you see this as a problem? Why/why not?
Our application is firstly made for students and teachers of nutrition and dietetics. It will be benefic to them because their data will be exported to excel.
The other users can have clear overviews of plans they could follow and are keeping track of their daily food intake.
It is a smaller group, since not everyone is interested in their food intake, but this isn't a problem.

Does the team that creates the technology represent the diversity of our society?
Yes, a bit. Our team consists of students that followed the same kind of education. However everyone has another way of thinking of the technology.

Now that you have thought hard about the inclusivity of the technology, what improvements would you like to make? List them below.
We will need to be careful so that certain questions or features cannot offend or ashame users.

Transparency

Are you transparent about how your technology works?

This category is not applicable for this technology.

Sustainability
Is your technology environmentally sustainable?

This category is not applicable for this technology.

Future
Did you consider future impact?

This category is only partial filled.

What could possibly happen with this technology in the future?
Publish our application to diet specialists, not only for schools.

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one utopian scenario.
This question has not been answered yet.

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one dystopian scenario.
This question has not been answered yet.

Would you like to live in one of this scenario's? Why? Why not?
This question has not been answered yet.

What happens if the technology (which you have thought of as ethically well-considered) is bought or taken over by another party?
This question has not been answered yet.

Impact Improvement: Now that you have thought hard about the future impact of the technology, what improvements would you like to make? List them below.
This question has not been answered yet.