Data management platform

There will be a solution that will help the researchers to kick-start the IT infrastructure of research projects. The technology that will be used within the solution will be further determined, when the research will be executed.

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Context of use: Education
Level of education: Master

Technology Impact Cycle Tool

Data management platform

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?
The necessity of creating a new platform for each research project leads to a significant loss of time. In addition, a considerable portion of the procedural elements involved in these projects exhibits a notable degree of similarity, leading to redundant efforts when building them from scratch. This practice not only consumes valuable time, but also diverts the focus of researchers and developers away from the core objectives of their respective research initiatives.

Are you sure that this technology is solving the RIGHT problem?
This question has not been answered yet.

How is this technology going to solve the problem?
This question has not been answered yet.

What negative effects do you expect from this technology?
This question has not been answered yet.

In what way is this technology contributing to a world you want to live in?
This question has not been answered yet.

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?

This category is only partial filled.

In which way can the technology be used to break the law or avoid the consequences of breaking the law?
When creating a solution, I need to take into account that the stakeholders using the solution have different rights in for example using the stored data. Besides that, the personal data that is included in some research data need to be private and only available for the ones with the right to see this.

Can fakers, thieves or scammers abuse the technology?
This question has not been answered yet.

Can the technology be used against certain (ethnic) groups or (social) classes?
This question has not been answered yet.

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.
This question has not been answered yet.

How could bad actors use this technology to subvert or attack the truth?
This question has not been answered yet.

Now that you have thought hard about how bad actors can impact this technology, what improvements would you like to make? List them below.
This question has not been answered yet.

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?

The technology itself does not gather personal data. This because the final "technology" will be some form of a solution. Which is not yet defined. Within the research projects that will be used as examples, there is personal data stored. As we will work towards a solution that will handle with this kind of data, we will take into account the risks that come with it.

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

This question has not been answered yet.

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

This question has not been answered yet.

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

This question has not been answered yet.

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

This question has not been answered yet.

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.

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?

The solution that will be created will not influence users or their identity. it will only saves time for them, in which they now can further investigate other parts of their research. Therefore it will only influence their knowledge.

How does the technology influence the users' autonomy?

This question has not been answered yet.

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

This question has not been answered yet.

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 only partial filled.

Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by answering these questions.

Name of the stakeholder
the researchers

How is this stakeholder affected?
-

Did you consult the stakeholder?
No

Are you going to take this stakeholder into account?
No

Name of the stakeholder
the software developers

How is this stakeholder affected?
-

Did you consult the stakeholder?
No

Are you going to take this stakeholder into account?
No

Name of the stakeholder
the product owner of this research project

How is this stakeholder affected?
-

Did you consult the stakeholder?
No

Are you going to take this stakeholder into account?
No

Did you consider all stakeholders, even the ones that might not be a user or target group, but still might be of interest?
-

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them below.
This question has not been answered yet.

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?
I am aware of the pitfalls of data. By making sure that we use as much example projects as possible within the research we will execute and by executing a lot of background research on the topics, we try to take this into account during the project.

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.

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Inclusivity
Is your technology fair for everyone?

This category is only partial filled.

Will everyone have access to the technology?
This question has not been answered yet.

Does this technology have a built-in bias?
Within the final solution there will not be a build in bias. The choices we will make during the execution of the project need to be explained detailed, due to the fact that we need to be objective during this master. With each step that will be carried out, we will think about possible ways to do it and then decide which way will be best. By using triangulation and different opinions, we hope to make sure that there will eventually be as less bias as possible.

Does this technology make automatic decisions and how do you account for them?
This question has not been answered yet.

Is everyone benefitting from the technology or only a a small group? Do you see this as a problem? Why/why not?
This question has not been answered yet.

Does the team that creates the technology represent the diversity of our society?
This question has not been answered yet.

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

Transparency
Are you transparent about how your technology works?

This category is only partial filled.

Is it explained to the users/stakeholders how the technology works and how the business model works?
Due to the fact that my work will be more in recognizing patterns or categories within the research workflows and finding out similarities within their flows, my final solution will not be used by a non-technical person. My solution will be some kind of a blueprint that could be used by a software developer to build software parts of the research projects. Due to the fact that the user will be a software person, the final product will be in line with their knowledge. If i would doubt that they would understand my final work without an explanation, I will add this in the end. But due to the fact that within my research paper, a lot of text is written down about the solution. I think this will also help the software developers.

If the technology makes an (algorithmic) decision, is it explained to the users/stakeholders how the decision was reached?
This question has not been answered yet.

Is it possible to file a complaint or ask questions/get answers about this technology?
This question has not been answered yet.

Is the technology (company) clear about possible negative consequences or shortcomings of the technology?
This question has not been answered yet.

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

Sustainability

Is your technology environmentally sustainable?

This category is only partial filled.

In what way is the direct and indirect energy use of this technology taken into account?

Due to the fact that not every researcher needs to develop new software for their project. a lot of time in creating the software platform will be saved. This will save time on the laptop for the software developer and therefore this will reduce the use of energy by the software developer.

Do you think alternative materials could have been considered in the technology?

This question has not been answered yet.

Do you think the lifespan of the technology is realistic?

This question has not been answered yet.

What is the hidden impact of the technology in the whole chain?

This question has not been answered yet.

Now that you have thought hard about the sustainability of this technology, what improvements would you like to make? List them below.

This question has not been answered yet.

Future
Did you consider future impact?

This category is only partial filled.

What could possibly happen with this technology in the future?
The research will be carried out for a professorship within the Fontys. I think the final solution will be kind of specific for the projects that are carried out within this professorship. If this technology will be used, for example worldwide, then a lot of different aspects need to be taken into account. If everybody will use our software blueprint, then the research on different new and maybe in the future better tools will stop. I think it is good that some people find different solutions in the future, to make sure that also other options are constantly taken into account. Due to the fast-changing IT tools and possibilities.

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.