

# Data Mags

A Data Science and Machine Learning online community platform, with an Integrated Development Environment. Inside this platform users will be able to upload/share their ML models, as well as explore/download other pre-trained models from other users. About the IDE the users will be able to import their dataset and will have the option to visualize it with the help of plots and tables.

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Context of use: Education  
Level of education: Bachelor

# Technology Impact Cycle Tool

Data Mags

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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?

Data Mags aims to create a user-friendly platform accessible to all who wish to work within the domain of data science and machine learning. With the goal of easing the accessibility barrier, particularly for those with little or no programming skills, and thus empowering a broader community of users to leverage these tools effectively.

## 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.*

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## 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?**

Data Mags could be misused for unauthorized data access. Users might upload stolen data or manipulate it for personal gain. The AI assistant could give false recommendations, in theory, influencing markets or elections.

### **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.*

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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?**

Yes, Data Mags collects personal data, mainly related to user accounts and interactions within the platform. This can include but is not limited to names, email addresses, and any information provided during account creation or usage. Additionally, if users upload datasets containing personal information, that could be stored and processed within the platform. It's important to ensure that all personal data is handled securely and compliant with GDPR.

### **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.*

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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?**

Data Mags changes its users' identities by offering a platform for knowledge exchange within the data science and machine learning communities.

Uploading models can help people establish themselves as experts in their fields and create possibilities for recognition and networking. Users who study and interact with the platform's material have the opportunity to learn and grow professionally, perhaps creating their identity as experienced data scientists.

### **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**

Fontys University

**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**

Data Scientists

**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**

Machine Learning Engineers

**How is this stakeholder affected?**

-

**Did you consult the stakeholder?**

No

**Are you going to take this stakeholder into account?**

No

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Name of the stakeholder

Data Analysts

**How is this stakeholder affected?**

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**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?**

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**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.*

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## 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?**

We acknowledge that data is inherently subjective, imperfect, and susceptible to bias. We understand the difficulty of differentiating correlation from causation, as well as the complexities of conveying reality through statistics. To address these challenges, the platform emphasizes transparency in data sources and processes and expects critical thinking and skepticism when interpreting 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.*



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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?

Data Mags may include inherent biases, which arise mostly from the data used to train machine learning models and the viewpoints of those involved in platform creation. If the training data overrepresents specific demographics or opinions, the models' suggestions may be biased.

## 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.*

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## 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?**

Data Mags promotes transparency when discussing how its technology works. Users may obtain information on the platform's functionality, such as the data sources and algorithms employed. We give descriptions of our goals, mission, and intended influence on the data science and machine learning communities. However, we recognize that the complexities of AI algorithms may not always be completely obvious to users.

### **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.*

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## 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?**

Data Mags promotes energy efficiency by improving platform infrastructure and reducing resource use. To decrease energy usage, we use cloud services that have environmentally friendly data centers and efficient data processing algorithms. Furthermore, we will investigate options to offload computing to client devices, reducing dependency on centralized servers and total energy use.

### **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.*

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## Future

Did you consider future impact?

*This category is only partial filled.*

### **What could possibly happen with this technology in the future?**

In the future, Data Mags might serve as a global center for data science and machine learning enthusiasts, allowing for cooperation, innovation, and knowledge exchange. As the platform expands and improves, it has the potential to provide access to powerful analytics tools, empowering people with various backgrounds to use data for good.

**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.*