Eurocom-G4

We aim to provide an intermediate server to convert different data types for Eourcom to obtain Asolution patient data.

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Created on: June 28, 2021 2:15 PM
Changed on: June 29, 2021 12:38 PM

Impact on society

What impact is expected from your technology?

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

The Eurocom E-Health API Service aims to solve the problem of data differences between thrombosis caretakers and tools provided by different companies. By coalescing the data of different tools and patients, caretakers are able to treat all patients the same, resolving possible confusion and delays in treatment.
Specifically, the nursing staff and managers can always obtain the patient's thrombotic index.
They can obtain the prescription for the patient to monitor the patient's medication status at all times.

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

The E-health service is tailor-made for companies that deal with thrombosis health issues, meaning that the input of said companies is taking into account during development. This ensures that the final data structures match all necessary requirements of each company.

Technology does not solve the problem, but people are the key to solving the problem. We aim to use this technology to help Eourcom provide better services to its customers, the caregiver.
Therefore, the caregiver could get the patient's data in a more convenient way to help the patient.

How is this technology going to solve the problem?

By carefully looking at all the data available during thrombosis treatment, patient information, and existing forms of data services in the medical field we feel strongly that the development of the services will lead to the solution.

What negative effects do you expect from this technology?

People's needs will change, so correspondingly, technology also needs to keep up with people's new needs. The system we build needs to be maintained at all times to adapt to new changes.

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

By reducing the time to treat patients, the medical field will increase both in quality and speed of treatments, resulting in less workload and stress for caretakers and a higher possible hospital capacity.

Monitoring the latest health data of patients can effectively help nursing staff to take care of patients, and it can also prevent emergencies in advance. This reduces the communication cost between patients and nurses to a certain extent, and at the same time, patients families can also help patients recover through software.
Once it is put into application on a large scale, it can reduce the medical pressure of the hospital.

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.

Technology cannot solve all problems. We aim to use technology as a tool to help Eourcom provide better services to patients. After this application is put into use on a large scale, it can help reduce the cost of communication between patients and nurses. Which not only reduces the medical pressure but also reduces the cost of care.

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?

The E-health service is used to convert and store medical and personal information of thrombosis patients. If the application is abused, the information can leak leading to privacy-invading and potentially identity theft.

Can fakers, thieves or scammers abuse the technology?

If the authorized personnel abuses the application it can lead to leaked personal information, fraud and identity theft.

Can the technology be used against certain (ethnic) groups or (social) classes?

By coalescing the data, groups and classes are united in ways that could potentially hurt their identity and ideals.

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.

Bad actors could use the information to show that there is no distinction between ethnic, social or religious groups in the medical field.

How could bad actors use this technology to subvert or attack the truth?

By faking personal information, a bad actor could case fraud or identity theft. The spreading of this fake news is potentially dangerous to the individuals that are affected.

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?

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

The core of the E-health application is registering personal data. Includes :
- Age
- Birthday
- Social Service number
- Health Data (Blood type, medical history, etc...)
- Other (contact number, etc..)

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

Yes, the privacy of an individual is at stake during the development and deployment of the application. We request the patient to share their personal information and the caretaker is authorized to use this information.

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

The data protection law allows the processing of patient's data for preventive or occupational medicine. The development team is dedicated to striving towards this goal to allow the processing of patient's data.

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

Access to the patient data will be very limited; only authorized personnel is allowed to view the data. The application itself does not store the data, only converts it whenever possible.

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

The data collected is limited to medical purposes and will be deleted once the patient is recovered and is no longer in need of assistance from the caretakers.

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

This term is not applicable for now.

Human values

How does the technology affect your human values?

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

The E-health service function is to receive medical data without creating an identity of the user. The data is used exclusively to improve the user's physical- and mental health.

How does the technology influence the users' autonomy?

The E-health service creates a blank slate of the users' autonomy based on personal and medical information.

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

The technology is meant to significantly improve the health and well-being of the user. The e-health service is an extension to the thrombosis treatment procedure and is therefore purely beneficial to the user.

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 term is not applicable for now.

Stakeholders

Have you considered all stakeholders?

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

Name of the stakeholder
Eurocom

How is this stakeholder affected?
They are one of the prominent developers in the technology of trombosis treatment and they provide us with the necessary information regarding trombosis.

Did you consult the stakeholder?
Yes

Are you going to take this stakeholder into account?
Yes

Name of the stakeholder
ASolutions

How is this stakeholder affected?
Asolutions is one of the prominent developers in trombosis treatment. They are in direct communication with Eurocom and they are one of the endpoints for the development of the data conversion.

Did you consult the stakeholder?
Yes

Are you going to take this stakeholder into account?
Yes

Name of the stakeholder
Trombosis Caretakers

How is this stakeholder affected?
They are the primary users of the technology. UX and UI are specifically designed with the caretakers in mind.

Did you consult the stakeholder?
Yes

Are you going to take this stakeholder into account?
Yes

Name of the stakeholder
Fontys

How is this stakeholder affected?
Matchmaking the project

Did you consult the stakeholder?
Yes

Are you going to take this stakeholder into account?
Yes

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

Name of the stakeholder
Trombosis Doctor

How is this stakeholder affected?
It will affect the way of communication between patients and doctors to a certain extent.

Did you consult the stakeholder?
Yes

Are you going to take this stakeholder into account?
Yes

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them below.
not applicable.

Data

Is data in your technology properly used?

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into account in the technology?

E-health service main goal is to provide sound and secure data to trombosis care takers. Any shortcoming and pitfalls of data will be taken into account and thoroughly researched in order to create the best experience.

How does the technology organize continuous improvement when it comes to the use of data?

An active development team combined with strong user feedback through stakeholder communications ensures that we are always up to date in the ever-changing development of data.

How will the technology keep the insights that it identifies with data sustainable over time?

The data received from patients are based on past occurences. Insights into the future of the data are not applicable.

In what way do you consider the fact that data is collected from the users?

The collecting of data is in the best interest of the user and/or patient.

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?

The project has only provided services between Eurocom and Asolution.

Does this technology have a built-in bias?

No

Does this technology make automatic decisions and how do you account for them?

We provide a black box API service for Eourcom developers.
The only automatic decision made by our technology is caching data and clearing the caching in a certain period.

Is everyone benefitting from the technology or only a a small group? Do you see this as a problem? Why/why not?

The premise of discussing anything needs to define a scope.

On a small scale, the direct stakeholders are only limited to the fact that this technology has improved the interaction between doctors, caregivers, and patients to a certain extent. To be more detailed, to a certain extent, it provides a layer of protection for the patient's health.

Does the team that creates the technology represent the diversity of our society?

The team grouped by 5 people who came from Netherland, China, and Romania.

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

Not applicable for now

Transparency

Are you transparent about how your technology works?

Is it explained to the users/stakeholders how the technology works and how the business model works?

Its Eourcom and Asolution need to take responsibility to explain the value of this technology to the real user.
On our side, the user is the developers from both companies above. We will update API documentation and other specific tech aspect content to them as the explaination

If the technology makes an (algorithmic) decision, is it explained to the users/stakeholders how the decision was reached?

We do not perform any complex algorithmic, the only thing we provide is to bring data from Asolution and convert it into a certain format.

Is it possible to file a complaint or ask questions/get answers about this technology?

We are committed to converting the data provided by Asolution. For use by Eourcom. The API documentation will be updated to GITHUB in the future.

Is the technology (company) clear about possible negative consequences or shortcomings of the technology?

The only problem that may arise is privacy.
And we only provide data conversion services, so it is not within the scope of the discussion.
The details involved require Asolution and Eourcom to negotiate with users.

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

- Project Introduction
- API Documentation

Sustainability

Is your technology environmentally sustainable?

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

None

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

No

Do you think the lifespan of the technology is realistic?

It is not applicable.

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

we are not only providing the data conversion but also build
An intermediate server reduces the access pressure of the main server to a certain extent. At the same time, the address of the main server is hidden to a certain extent to prevent some network attacks.

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

Taking into account future changes in demand, the data model we design needs to maintain a simple and simple maintenance principle to respond to changes in demand.
(maintainable modeling to embracing the future changes)

Future

Did you consider future impact?

What could possibly happen with this technology in the future?

- The data model we designed will be changed and reconstructed according to the needs of users
- When new technologies appear, the servers we provide will be replaced.

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 is not applicable to our project.
Our task is to design a backend API server that connects A Solution and Eourcom applications.

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 is not applicable to our project.
Our task is to design a backend API server that connects A Solution and Eourcom applications.

Would you like to live in one of this scenario's? Why? Why not?

Not Applicable

What happens if the technology (which you have thought of as ethically well-considered) is bought or taken over by another party?

Our technology is designed for providing for the third part company to convert their data, there won't ethically issue with taken by another party.

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.

We aim at a specific task, which is to convert data. To embracing future change:

- Keep Clean design of Modelling