Conversational Speechbot in de Zorg

De conversational speech bot heeft als doel om eenzaamheid en depressie tegen te gaan door stimulerende conversaties. Het sentiment van de persoon kan worden bepaald door middel van tekst/stem analyse.
Personen voelen zich minder eenzaam en bereiden zich voor op een echte ontmoeting. De verzamelde data kan van groot belang zijn voor de zorgmedewerkers voor signalering.

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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?

In de zorgsector is behoefte aan actieve en passieve zorg. In beiden gevallen is er een tekort. Actieve zorg is veeleisend, passieve zorg is minder intensief, maar kost veel tijd.

De ouderenzorg webpagina van de overheid(NL) toont "eenzaamheid" als eerste uitgelichte thema.

De statistieken tonen dat eenzaamheid een groot probleem is voor personen in een hogere leeftijdscategorie. Nieuwe connecties maken is lastig. Wat eenzaamheid kan versterken. Dit kan leiden tot complete afsluiting en depressie.

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?

Deze technologie is erg gevaarlijk. Inzichten over de bewoners worden verzameld gedurende de conversaties. Zorgmedewerkers zouden deze inzichten kunnen gebruiken om bewoners te manipuleren. Daarnaast zou iemand de chatbot kunnen hacken door middel van prompting om gevoelige data over de bewoners te verzamelen. Ook kan deze technologie buiten de zorgsector misbruikt worden om data over gebruikers uit chats te minen.

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?

Er is persoonsgevoelige data zoals naam, geboortedatum, wachtwoord voor gebruiker accounts, maar ook emotionele data zoals gevoel, sentiment en conversatie thema's. Deze data vereist extra maatregelen volgens de GDPR princiepes.
De verzamelde data blijft gescoped binnen een individuele zorginstelling. De medewerker accounts hebben toegang tot de data in een beveiligde omgeving. Dit limiteerd cross-contact. Maar lost de gevoeligheid niet op.

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?
Er zijn drie soorten gebruikers. Bewoners, zorgmedewerkers, en admin. In werkelijkheid levert dit de chat- en dashboard-omgeving op. De bewoners zouden mogelijk beinvloed kunnen worden door de gesprekken met de chatbot, maar ook door de zorgmedewerkers. Zo zouden zorgmedewerkers door de inzichten over de bewoners zich anders gaan gedragen. De bewoners zouden ook erg gehecht kunnen raken aan de chatbot, wat contact nog moeilijker zou kunnen maken.

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.

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
Ab Brink - Product Owner

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
John Kuijpers - Process Coach

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
Claudi Olieslagers - De Wever Contact

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
Varierende Doelgroep - De Wever

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?

Het gedrag van de chatbot is erg afhankelijk van de LLM die wordt gebruikt en de manier van prompting. Ook de taal en uit te voeren taken kunnen erg verschillen per model. Door gebruik te maken van Open Source modellen met transparante trainings methodes wordt dit vermindert. Daarbij is de kwaliteit en manier van data opname vanuit chats erg van belang, want foutieve data leidt tot misleidende inzichten.

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?

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?
De gebruikte LLM is vooraf getrained door een institutie (b.v. OpenAI, Meta), dus er zit al een bias vooraf die afhankelijk is van de gebruikte data en manier van trainen. Door prompting en gebruik van verschillende agents kan dit worden gehanteerd. Daarnaast worden variabelen gemeten die depressie en eenzaamheid moeten signaleren, de gekozen variabelen zouden biased kunnen zijn richting het onderzoek dat is verricht.

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?

De technologie wordt ontwikkeld in samenwerking met De Wever en een aantal bewoners als doelgroep. Daarbij is CIMSOLUTIONS de facilitator van kennis voor development. En de bewoners delen hun behoeftes zodat deze geevalueerd kunnen worden voor implementatie.
Dit zorgt voor een meetbaar process van requirement opstelling, development, realisatie en testing.

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?
Het trainen van een LLM kost enorm veel rekenkracht, dus ook veel energie. Daarnaast is het veeleisend om modellen lokaal te runnen. Een deelse oplossing hiervoor is het quantiseren van model data naar 4bit. Hierdoor is minder rekenvermogen vereist, maar de performance is ook lager.
De combinatie van verschillende AI-microservice componenten die in de cloud actief zijn kosten ook wat energie. Vooral als de applicatie word geschaald naar een grote hoeveelheid gebruikers

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?
De technologie kan twee kanten op gaan. Het kan veel aspecten van ons leven verbeteren, buiten de zorg om. Het automatisch signaleren van mentale stoornissen door gesprekken, of het overzichtbaar maken van enorme data stromen uit conversaties. Maar het kan ook misbruikt worden als een BigBrother tool.

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.