IMPROVEMENTSCAN - CANVAS

Virtual AI coach

NAME: Virtual AI coach

DATE: July 12, 2025 11:12 AM

DESCRIPTION OF TECHNOLOGY

The virtual AI coach is there to support students by listening to their personal wellbeing concerns. The virtual coach acts as a confidant, listening attentively and asking relevant questions based on the context. The most important goal is for the student to feel heard. When topics become too personal, especially those related to mental health, the coach will refer the student to a real coach or professional.

HUMAN VALUES

To improve alignment with human values, the virtual AI coach should allow students to control how personal the coach becomes, helping protect autonomy and comfort. A usage dashboard could help prevent overreliance and encourage balance. To preserve user identity and mental well-being, emotional tone settings should be adjustable, and students should be reminded that the AI is not a human. Finally, to reduce confusion and support autonomy, the coach should clearly state when it doesnt have an answer or when its time…

TRANSPARENCY

Based on these reflections, we would add a clear onboarding process that informs users of the virtual coachs purpose, boundaries, and limitations. A dedicated FAQ and transparency section will explain how the AI works, including its reliance on prompts and local processing. We will also include warnings about potential emotional effects and offer a clear contact point for feedback or concerns. This way, users can make informed decisions and know what to expect from the technology.

IMPACT ON SOCIETY

To improve the impact of the virtual AI coach, we would implement a user-controlled personalization slider for tone and depth of conversation. We would also introduce time-based usage reminders to prevent emotional overdependence. The AI would clearly explain its boundaries and limitations up front. Lastly, wed ensure seamless escalation to real professionals when sensitive topics arise, and explore integrating community or peer-support features to encourage real human connection alongside AI use.

STAKEHOLDERS

To better consider all stakeholders, including less obvious ones like parents, teachers, and ethics committees, we would improve transparency around how the AI works and clarify its limitations. Parents and teachers may worry about students relying too heavily on the coach, so we would provide them with optional insights or summaries (without breaching privacy) to foster trust. Wed also add customization tools that let institutions align the coach with their own values, helping schools and educators feel more comfortable integrating the…

SUSTAINABILITY

We will look into reducing the energy demands of the AI by optimizing the model size and performance. Additionally, we are investigating if certain taskslike data processing and storagecan be handled locally on the users device to reduce reliance on energy-intensive cloud services. We also aim to provide transparency around energy usage and encourage use on low-power devices when possible.

HATEFUL AND CRIMINAL ACTORS

To mitigate misuse, the virtual AI coach should include strict authentication and user access controlsespecially in school settings. All conversation data must be encrypted and stored locally unless explicitly allowed by the user. Additionally, tamper detection and logging should be implemented to flag unusual interactions or changes to the system prompt. The system should be auditable by trusted professionals, with regular checks for bias, harmful suggestions, or false information. Finally, transparency notices should inform user…

DATA

At the moment, no major improvements are planned. The virtual coach is designed with local data storage, optional saving, and user-controlled privacy settings in mind. The AI does not rely on large external datasets and avoids unnecessary data collection, minimizing risks related to bias or unsustainability. Continuous feedback during user testing will help identify any future improvements if needed.

FUTURE

I guess its good to be aware of the possible future impact, but honestly, the world is constantly changing anyway. There will always be both utopian and dystopian sides to technology. Maybe we can build in some guidelines or restrictions early on, but if someone else takes over and changes everything to make money, that's on them. I can only control so much. Improvements could include clearer warnings, user limits, or opt-out optionsbut whether those survive in the long run depends on whos in charge.

PRIVACY

To better safeguard privacy, improvements could include allowing users to choose whether their data is stored and for how long, with clear expiration dates or auto-deletion options. The system could implement strict local encryption and optional anonymization for future model training. Adding transparency featureslike a dashboard that shows what data is stored and gives users full deletion controlwould also increase trust. Lastly, ensuring consent is gathered clearly before any personal information is processed is key to stayi…

INCLUSIVITY

Yes. Based on this reflection, I would improve inclusivity by involving a more diverse group of testers and designers throughout the development process, especially those from different cultural and socio-economic backgrounds within MBO education. I would also implement features that allow the virtual coach to adapt better to different communication styles and sensitivities. Additionally, the interface and language used should be reviewed for accessibility and inclusiveness, ensuring the technology feels welcoming and…

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TICT

HUMAN VALUES

Now that you have thought hard about the impact of your technology on human values, what improvements…

If you think about the impact of this technology on human values and needs. If you think about how this technology affects the identity of the user, the autonomy of the user (can the users make their own decisions?) and the health and well-being of the user. If you think about all that, what improvement would you (want to) make? In the technology?…

TRANSPARENCY

Now that you have thought hard about the transparency of this technology, what improvements would you like t…

If you think about the communication on the way the technology works and the businessmodel. If you think about the explanation on automatic decisions that are made. If you think about complaint procedures and transparency on possible negative effects. If you think about all that, what would you (want to) improve? In the technology? In context?…

IMPACT ON SOCIETY

Now that you have thought hard about the impact of this technology on society (by filling out the questions…

If you think about the real problem this technology is going to solve. If you think about the ability of this technology to solve the real problem. If you think about possible negative effects and whether this technology will contribute to a world you want to live in. If you think about all that, what improvements would you make? In technology? In context? In use?…

STAKEHOLDERS

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them…

If you think about all stakeholders of this technology. If you think about stakeholders that are less obvious. If you think about the way certain stakeholders are affected by this technology and if you want to take them into consideration. If you think about all that, what would you (want to) improve? In the technology? In context? In use?…

SUSTAINABILITY

Now that you have thought hard about the sustainability of this technology, what improvements would you like t…

If you think about the direct and indirect energy use and the materials that are used in the technology. If you think about the lifespan of the technology and the hidden environmental impact of the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?…

HATEFUL AND CRIMINAL ACTORS

Now that you have thought hard about how bad actors can impact this technology, what improvements would…

If you think about this technology being used to break the law, or avoid the consequences of breaking the law, or to be used against certain groups, or to attack the truth or to pit certain groups against each other. If you think about all of that, what improvements would you (want to) make? In the technology? In context? In use?…

DATA

Now that you have thought hard about the impact of data on this technology, what improvements would you…

If you think about the limitations of data. Things like subjectivity, incomplete datasets and so on. If you think about the way new insights are handled. If you think about the sustainability of the collection of data or the data that is collected from the users. If you think about all that, what would you (want to) improve? In the technology? In context?…

FUTURE

Impact Improvement: Now that you have thought hard about the future impact of the technology, what…

If you think about an utopian and a dystopian scenario. If you think about the way this technology can change the world. If you think about the consequences of a different party buying your technology. If you think about all that, what would you (want to) improve? In the technology? In context? In use? …

PRIVACY

Now that you have thought hard about privacy and data protection, what improvements would you like to make?…

If you think about this technology invading someone's privacy or collecting personal data and if you think about the way this technology is compliant with prevailing law and mitigates dataprotection risks and concerns. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?…

INCLUSIVITY

Now that you have thought hard about the inclusivity of the technology, what improvements would you like to…

If you think about accessibility to this technology. If you think about built in biases or automatic decisions that may be biased. If you think about who is benefitting from this technology and the diversity of the team that creates the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?

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