



Web3 Journal: ML in Health Science

[ISSN 2942-8726](#)

2024. Vol. 1(2)

Editorial (V7.0. update 08.05.2024)

[TxnHash: 0x6fe1deb746dbd978baee68e2940d75faab168afaa70ca89718cf9a8c851a87c5](#)

[DOI: 10.62487/ypqht57](#)

Human-centered Evaluation of AI and ML Projects

Yury Rusinovich¹, Alexander Vareiko¹, Nikita Shestak¹

Keywords: Evaluation of AI, Human-centered AI

With this editorial, we inaugurate the next issue of our journal, which is dedicated to showcasing AI, ML and E-Health models within real healthcare environments. We cordially invite authors to submit their works for publication. Each submission will undergo a rigorous peer review, with a special focus on the human-centered aspects of the proposed original project. The evaluation process will adhere to evidence-based guidelines continuously refined by our ongoing web research and the insights published in our foundational issue, "Why ML in Health Science." Published original projects will be recognized with our Blockchain Token, MLHS, and added to the repository "Web3 Certificate: Human-Centered Project"¹.

It's important to clarify that our recommendations are not intended to replace the guidance of official regulatory bodies. Rather, they are designed to enhance the integration of human-centered considerations in AI and ML projects, thereby promoting sustainable human-AI collaboration.

Within this editorial, you will find our current recommendations, each substantiated by research or endorsements from official regulatory authorities. These recommendations will be utilized for the peer-review process:

1. Maintain human oversight in machine-to-machine interactions, ensuring that critical decisions involve human judgment and accountability²⁻⁷.
2. Provide transparent information about the developer team, such as profiles on social networks (LinkedIn, X, etc.)^{6,8,9}.
3. Ensure transparency regarding the algorithms of the models^{6,8-12}.
4. Build your model on existing and proven data¹³⁻¹⁵.
5. Regularly consult an independent human expert to validate the stability of your AI/ML system. Employ robust validation methods to compare human and machine decisions, ensuring continuous accuracy and fairness^{3-5,8,9,11,12,16,17}.
6. Inform the end-users of your model, such as patients or clients, about the utilization of AI/ML in communication, including diagnostics and treatment processes^{7,8,10,18-22}.
7. Inform the users of your model, such as patients or clients, about the utilization of their data for training of your model, if such training is performed^{10,18-22}.

¹ML in Health Science, Germany, Poland. Europe

Corresponding author: Yury Rusinovich

Email: info@mlhs.ink

8. Implement a feedback system to collect insights from your end users, such as patients or clients, regarding the performance and impact of your model^{8,10,21,22}.
9. Guarantee that your project adheres to the prevailing guidelines and standards in Health Science and Healthcare, ensuring compliance, safety, and efficacy in all applications^{3,10}.
10. Avoid using confounders that could lead to social scoring and categorization of humans, such as nationality, race, immigration status, or religion^{3,4,8,23–37}.
11. Provide Diamond Open Access to at least the beta version of your project, meaning no fees are charged³⁸.
12. Incorporate team members with medical backgrounds who have regular interactions with real patients into your project^{3,7,10}.
13. Prominently highlight a “Human-centered” approach in your White Paper, website, and social media posts, underscoring the commitment to prioritizing human well-being and ethical standards in your projects³⁹.
14. Engage in charitable activities or make donations (e.g., to organizations like UNICEF, Water.org, etc.)^{40–43}.

Conflict of Interest: no conflict of interest exists.

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