



PARKSIDE
The UX success factor in the use of artificial intelligence

Artificial intelligence (AI) holds enormous potential for automation, for the creation of new products and services, for increasing efficiency and for data processing. However, AI can also create a sense of scepticism and discomfort among users or patients, especially when used in the human technology sector. In addition to the technical challenges, human-system interaction is also an important success factor in the use of AI, because it does not replace the individual, but rather interacts with the users and supports them in their daily work. Even in highly automated processes, the human being is the ultimate controller, and so it is crucial to also address the psychological aspects of this interaction. Especially in the environment of medical devices, a sufficient risk analysis and subsequent usability tests are of crucial importance, as even the smallest uncertainties and errors in use can have serious consequences for patients.

To ensure that AI-based applications are also used profitably, it is crucial to involve UX (user experience) and UI (user interface) designers in the development process in addition to data scientists and engineers. They ensure that the human factor is taken into account and that technically perfect solutions also achieve the necessary usability and acceptance.

In AI applications, the UX focuses on the following topics, among others:

- » the motivation of the user to use an AI-based tool
- » the trust in the results of the AI, the data security and its explicability and comprehensibility
- » the user's expectation management of the AI application and
- » a well thought-out interaction according to common UX criteria, which offers the AI application the possibility to learn.

Learn more about the most important focus areas for UX in artificial intelligence systems at: www.parkside.at/ux4ai

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Artificial intelligence as an ethical challenge

AI, at least as a buzzword, is well known to the general public. How AI works, what potentials and possible dangers it harbours, and how to deal with it in a meaningful way, are not so well understood. People's emotional reactions to AI include everything from flat-out rejection to massive existential fears to ideas of paradise. A similar spectrum of attitudes is evident even among experts. To arrive at a sense of how we as a society want to handle the use of AI, and what measures should be taken, we need to consider and discuss the ethics of its development and application.

Ethics is primarily concerned with the question of what is good and with the evaluation of actions and decisions as to whether they are good or bad. The potentials, but also the risks and dangers of AI require us to be clear about what is good and right for us. There are now a number of proposals to establish ethical orientation principles in dealing with AI at all levels, especially among decision-makers. These include, as basic principles, autonomy, non-harm, "do good" / welfare, and justice/fairness. Other normative orientations would be to protect groups that are particularly worthy of protection, clearly regulate the distribution of power and information, and thus also create clear responsibilities. Issues that need answers are social impacts, prohibition of discrimination and preservation of diversity, special protection of privacy (confidentiality, integrity) and security, but above all transparency and explainability and the necessity of stakeholder analyses. In case of conflict, it is always necessary to justify which principles and values are to be rated higher than others. Not all of these orientations can always be realized at the same time.

However, an ethical framework is needed at all levels, starting with the initial ideas and extending to the developers, the developments (ethics-by-design) and companies, all the way to concrete applications and political regulations. Sensitization and adequate value attitudes must be incorporated into personal behaviour everywhere and must not simply be delegated to clients or to higher authorities. Each individual has to take responsibility for their own actions. Transparency is a key tool here, enabling us to accompany developments with critical reflection at an early stage and to stimulate a social discourse about what we want and what is better not to do. Since not every end justifies the means, it must also be possible to forego certain opportunities in order to safeguard fundamental values and principles. This requires impact assessments, clearly defined areas of application, small implementation steps, sufficient safety nets, permanent evaluations and clear responsibilities in order to construct future AI in a "human-compatible" and "human-sensitive" way.

At the moment it is hardly possible to predict where the development of future AI systems will lead. But we can develop our ethical discussions now and by preparing the relevant ethical principles, we can be ready to exploit these potentials in a way that we want to without having to suffer the worst of the risks. What matters is that we can only do this together.

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„We need to construct future AI in a ‘human-compatible’ and ‘human-sensitive’ way“

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