

The Ethics of Computing Ethics

Ever since the advent of computers, the tendency to delegate tasks to machines has been prevalent also in the clinic. Artificial intelligence already helps medical staff with a multitude of different tasks, including precision dosing, predicting long-term therapeutic outcomes, and interpreting medical images. Genuinely ethical tasks have so far been excluded from automatization.

With the COVID-19 pandemic, however, the need for the taking of thousands of morally relevant decisions within short time frames has arisen. Expanding the use of artificial intelligence into the realm of clinical ethics suddenly seems a worthwhile enterprise.

In the past months, our interdisciplinary team of engineers and ethicists have developed the world's first functional ethical advisory system for clinical application. Preliminary performance results are promising: the algorithm's recommendations barely deviate from those of human ethicists. We will begin this talk with an analysis of the different moral frameworks on which an ethical advisor system could be based and explain how we used machine learning to incorporate Beauchamp and Childress' prima-facie principles. We shall show how we acquired suitable training data and captured the parameters of individual medical cases.

That one can do something, however, does not imply that one also should: the basic technological means now exist to aid bioethical decision-making; but should we really entrust this sensitive domain to artificial intelligence? We will end the talk by reflecting on the profound impact on (clinical) culture that new technologies of this kind are likely to have.