

Chapter 1

Ethics, Health, and AI in a COVID-19 World: Why Contextual Dynamics Matter and Culture Beats Algorithms

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ABSTRACT

One of the conversations that emerged forcefully during the past year, in the context of the COVID-19 pandemic, is linked to the use of artificial intelligence (AI) in healthcare, and it touches both its effectiveness and its ethics. The chapter starts with three examples of using automated systems in healthcare and continues by proposing an understanding of the ethics from the perspective of the meaning assigned to optimisation. The argument is that we need to deeply explore the aim of optimisation in order to shed a different and perhaps more revealing light on ethical questions related to AI use in general, and in healthcare in particular. The chapter ends with a few propositions on how to approach optimisation and reconsider the way in which automation is both adopted and adapted.

INTRODUCTION

One of the conversations that emerged forcefully during the past year, in the context of the COVID-19 pandemic, is linked to the use of Artificial Intelligence (AI) in healthcare, and it touches both its effectiveness, and its ethics. Based on the author's experience in healthcare and on the current examples of the adoption and adaptation

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of automating systems, this article will discuss the impact of the possible use of AI as decision support for allocation of medical resources in emergency situations. The main question of the article is: How is optimisation understood and used in healthcare in relation to AI, what are possible pitfalls of adopting automated systems, and how can they be possibly avoided?

Exploring possible answers to this question will lead us to analyse the impact of the dynamic socio-cultural environment on the predictive capacities of algorithm-based AI models. The article will emphasize the importance of integrating culturally specific dimensions in AI development and deployment, and to approach ethics as applied to AI in a culturally aware manner.

The article starts with three examples of using automated systems in healthcare, and continues with proposing an understanding of the ethics from the perspective of the meaning assigned to optimisation. The argument is that we need to deeply explore the aim of optimisation in order to shed a different and perhaps more revealing light on ethical questions related to AI use in general, and healthcare in particular. The article ends with a few propositions on how to approach optimisation and reconsider the way in which automation is both adopted and adapted.

DECISIONS, DECISIONS, DECISIONS

Optimisation is a major selling point of Artificial Intelligence (AI)-based automation systems. It consists of clear and obvious applications — such as optimising the image-based diagnosis in healthcare. All the same, it bears promises of a perfectly optimised lifestyle for those who embrace total monitoring of their lives, from food intake to daily activities — a hallucination of a perfectly optimised life that is.

The ethics of decision making applied to AI gave birth to an entire field, AI ethics, with specialized journals, publications, and books that cover the most diverse domains, from justice and policing application to cultural variance of AI applications. While some authors approach the structural determinants that influence the very design of automated systems (Noble, 2018; D'Ignazio et al., 2020), others look at the ways in which these designs reinforce the current inequalities instead of addressing them (Hong, 2020; Eubanks, 2019; Hicks, 2018). Healthcare, AI and ethics constitute a special subfield, in which decision making is analyzed from ethical, human-machine interaction, and efficiency lenses (Perreira, 2019; Musen et al., 2014; Park et al., 2019; Pontefract et al., 2018; Kohli et al., 2018). While the field is ripe with theoretical and practical approaches, this paper proposes a perspective on the question of AI ethics in healthcare that is both philosophical and practical. Philosophically it asks the question of the limits of optimisation, it concretely shows how ethics is highly

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