Chapter V

Are Agency and Responsibility Still Solely Ascribable to Humans?
The Case of Medical Decision Support Systems

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Abstract

Are agency and responsibility solely ascribable to humans? This chapter explores the question from legal and ethical perspectives. In addition to presenting important theories, the chapter uses arguments, counterarguments, and scenarios to clarify both the actual and the hypothetical ethical and legal situations governing a very particular type of advanced computer system: medical decision support systems (MDSS) that feature AI in their system design. The author argues that today's MDSS must be categorized by more than just type and function even to begin ascribing some level of moral or legal responsibility. As the scenarios demonstrate, various U.S. and UK legal doctrines appear to allow for the possibility of assigning specific types of agency—and thus specific types of legal responsibility—to some types of MDSS. The author concludes that strong arguments for assigning moral agency and responsibility are still lacking, however.

Introduction: Why MDSS Deserve a Closer Look

Are agency and responsibility solely ascribable to humans? The advent of artificial intelligence (AI) appears to be chipping away at the traditional foundations of moral agency and responsibility. Despite the increasing attention of many philosophers and ethicists to AI, there continues to exist a fair amount of conceptual muddle on the conditions for assigning agency and responsibility to such systems, from both legal and ethical perspectives.

In contexts where the requirements for attributing responsibility are not met, we are mistaken if we assign responsibility to machines. In such cases, we need to make it clear to those designing and employing the machines that responsibility rests on them. Since my argument has the conclusion that currently available computer systems do not meet the conditions for being responsible agents (although some will come close to meeting the conditions), it has an implication that ***for now*** *issues concerning responsibility must be directed at those designing and using the machines.* (Bechtel, 1985, p. 297, Bechtel's own emphasis)

Bechtel wrote the previous passage over twenty years ago. Have things changed since then? This chapter explores the possibility that the answer could now be affirmative:

Now it can be shown that there is an increasing class of machine actions, where the traditional ways of responsibility ascription are not compatible with our sense of justice and the moral framework of society because nobody has enough ***control*** *over the machine's actions to be able to assume the responsibility for them. These cases constitute what we will call the* ***responsibility gap****.* (Matthias, 2004, p. 177, Matthias's own emphasis)

Roadmap of the Chapter

The first section of this chapter introduces the various types of advanced medical decision support systems (MDSS) and AI that are the focus of this analysis. It also outlines the moral and legal issues that drive the study. The second section presents important non-mainstream arguments and counterarguments for ascribing moral agency and responsibility to such systems. The third section, in addition to providing some background to the relevant legal principles, explores the potential current and future legal ramifications of MDSS, through the use of informed legal conjecturing and scenarios.[1]