

Preface and acknowledgements

The idea for this book emerged from the intersection of three areas of interest. The first is of course the rise of artificial intelligence, its powering of machines and systems, and the effects it might have on our lives. The second is the legal responsibility of groups, including states, military organizations, and multinational corporations. The third has to do with complexity theory and the relationship between autonomous agents, human and artificial, and complex systems. As artificial intelligence, autonomous machines and systems, and intelligence enhancement have become more widely used, several of the issues that emerge with the legal responsibility of groups are arising in debates about how society in general and the legal system in particular should respond to these emerging, increasingly sophisticated technologies, particularly if they cause harm, and whether and how the law itself might change in relation to those machines and systems.

It was useful to frame this exploration in terms of a possible trajectory for the coevolution of autonomous technologies and legal responsibility, that is, to examine how emerging technologies are interacting with existing systems of responsibility, to identify particular trends, and to consider where those trends might lead. As such, this study is not intended to be a complete review of the existing legal doctrine as it might apply to autonomous technologies; excellent works of that kind already exist. Of course, this book must describe recent developments in the technology and the legal landscape to some extent, but its purpose is to be more thematic and speculative in nature. At the same time, over the course of writing the book, the project became more than tracing a possible trajectory: it also became a chance for reassessment. The emergence of artificial intelligence requires us to reconsider how we already address harms and to ask whether the justifications for our existing systems of responsibility are likely to remain persuasive as intelligent technologies become a greater, perhaps ubiquitous part of our daily experience.

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¹ Mark A. Chinen, *The Co-Evolution of Autonomous Machines and Legal Responsibility*, 20 VA. J. L. & TECH. 338 (2016).

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