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Book Review: Is Law Computable?: Critical Perspectives on Law and Artificial Intelligence

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Is Law Computable?: Critical Perspectives on Law and Artificial Intelligence. Edited by Simon Deakin and Christopher Markou. Oxford; New York: Hart Publishing, 2020. xxi, 320 pages. Includes bibliographical references and index. ISBN: 978-1-5099-3706-6 (Hardback) $130.05.

If you have any interest in artificial intelligence (AI), especially if it's coupled with a desire to learn more about how developments in AI are related to law and legal technology, then this collection of papers has been compiled just for you. However, as Frank Pasquale[1] rightly suggests in his thoughtful foreword, this is also "a collection that should be read by a wide range of audiences both in and around the legal profession" (p. v).

Why such high praise? First of all, these papers were prepared for a one-day workshop[2] that brought together "some of the most influential scholars working at the intersection of law/technology" (p. 19). This diverse range of experts gathered at the University of Cambridge in December 2019 to share their ideas and talk about how artificial intelligence, machine learning and data science have been and might be applied to legal procedures and decision-making. And secondly, as stated in the concluding remarks of the editors' introductory chapter, these papers are a "deliberate effort to push-back against the more hagiographical accounts of AI in law" (p. 28). In other words, these papers provide a much-needed critical analysis and reality check.

While AI is mentioned regularly in media and social media sources, the general fervor over AI seems to have died down since IBM's Watson won that fabled Jeopardy! tournament in 2011, or DeepMind's AlphaGo beat Lee Sedol the reigning 9-dan professional Go champion 4 games to 1 in 2016. Computational successes like these, or even the earlier Deep Blue chess program, have led some Legal AI proponents to "mistakenly assume that because machine learning systems can perform well in certain well-defined and well-delineated tasks, they are transferable … to a complex, shifting thing like law, filled with loosely-defined abstract concepts" (p. 119).

The idea of the "legal singularity,"[3] which Jennifer Cobbe describes as "the point at which machines become as good as if not better than humans at understanding, applying, and, potentially, writing the law" (p. 107), is raised and contested by many of the writers in this collection. Lyria Bennett Moses, for example, explains that law and legal processes are much more of a "multi-dimensional puzzle" (p. 205) and therefore there will not be a "single singularity" (p. 205-222). She also provides a particularly useful conceptualization describing these legal singularities as a three-dimensional solid changing over time where "each axis comprises legal tasks otherwise performed by human paralegals, lawyers and judges" (p. 205). Think of an amorphous object that expands until all aspects of this legal puzzle have reached out

[1] See his fantastic keynote presentation "Battle of the Experts: The Promise and Peril of Automating Knowledge Work" delivered at the 2021 Virtual CALL/ACBD Conference.
[2] For some additional information see https://www.jesus.cam.ac.uk/articles/lex-ex-machina-conference-laws-computability.
[3] Alarie, Benjamin. 2016. "The Path of the Law: Toward Legal Singularity." *University of Toronto Law Journal*. 66 (4): 443–455.

to touch an encompassing sphere that represents the perfect or "functionally complete"[4] legal system.

All contributions to this collection are well-written, impeccably researched, thought provoking and worth reading. In addition to the application of AI to law in general there are papers that focus more specifically on law and politics, law and society, the rule of law, holding AI criminally responsible, copyright, and assessing mental capacity.

Having said that, if you could only read one of these chapters, the final chapter by Christopher Markou and Lily Hands would be recommended. It provides an excellent overview of the challenges involved when using AI as a way to assess legal capacity. It begins by considering the influence of early applications of AI and medicine including the development of medical expert systems used for psychiatric diagnosis and clinical decision support. In the process Markou and Hands also review various stages in AI development: Logical AI, Connectionist AI, Affective Computing, Automated Mental State Detection, and briefly touches on human brain interfaces.

Since machines are not "capable of cognitive awareness" (p. 195) they don't, nor can they, "think."[5] Therefore the idea of using a machine to assess the psychological state of a human being is an important legal problem to consider. Especially, as Markou and Hands explain, when the assessment process calls on the courts "to apply a fundamentally imprecise concept to subjective evidence while resolving conflicts between individual autonomy, social norms, ethics and public policy" (p. 279). In other words, this is not a well-defined area of law.

The social role of law is often overlooked in legal AI which leads Cobbe to conclude that "without rethinking how law is problematized and responses developed, and without working towards radically rebuilding the law to try to produce a fairer, more just society, legal singularity as a vision and a goal remain primarily concerned with making the law better at entrenching market-oriented logics, commercial imperatives, and a particularly computational worldview" (p. 133). This omission is another common thread found throughout this collection and raises another important question that many authors allude to: just because "arbitrary software developers in big tech or big law" (p. 83) can apply AI to an area of law, or indeed to any aspect of life, should they?

From a practical perspective these papers are enhanced by a glossary and a decent index. For each term in the glossary, for example 'Machine Ethics,' a definition and a short reading list are provided. Very helpful for readers looking to gain a better understanding of the concepts and historical developments of AI and law. While AI continues to seep into many areas of legal practice this is an important collection of critical papers relevant not just for law libraries but for any library collection hoping to inform readers about ongoing developments of AI and society.

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[4] Ibid.

[5] "Even though machines that 'think' is how some people have conceptualized AI, this remains a futuristic vision" (p. 207).