BOOK REVIEW

The Cambridge Handbook of Private Law and Artificial Intelligence by Ernest Lim and Phillip **Morgan**, eds. [Cambridge: Cambridge University Press, 2024. xxvi + 672 pp. Hardcover: S$219.92]

In recent years, the world has witnessed considerable advancements in artificial intelligence ("AI") technology. For example, several chatbots based on large language models ("LLMs") have been publicly launched, affording users the capacity to generate chunks of text using prompts. In the coming years, it seems that businesses and governments are likely to continue to invest substantially in innovation in AI. Therefore, at least within the near future, AI will probably be a prominent economic and social phenomenon.

AI has the potential to impact many aspects of society, including private law. Conversely, the rules of private law can influence the development and application of AI. There is, therefore, a clear intersection between private law and AI. *The Cambridge Handbook of Private Law and Artificial Intelligence*, edited by Ernest Lim and Phillip Morgan, is well-placed at that intersection. By bringing together the expertise of many established authors, it provides the reader with a comprehensive examination of the issues raised by AI across the various fields of private law.

This book contains a total of 29 chapters, in addition to an introductory chapter by the editors. In terms of the overall structure of this book, it is well-organised by topic, with each chapter consistently addressing one legal topic (for example, trust law) and its interface with AI.

The initial two chapters of this book examine some general issues pertaining to AI and private law. In Chapter 1, John A McDermid, Yan Jia, and Ibrahim Habli introduce AI concepts and terminology. In particular, the authors explain the different types of machine learning ("ML"), the state of the art of ML, and the challenges posed by AI systems based on ML. In Chapter 2, Harry Surden discusses computable law (that is, the representation of law in computer-processable form). Surden argues persuasively that simple but effective methods of computable law remain useful even with the growth of LLM-based AI systems, especially because these AI systems suffer from certain limitations that diminish their reliability and precision. One example of a simple computable law method is the addition of structural metadata to legal documents as a means of facilitating the computer processing of the documents – this method is "overlooked and under-utilised" because it is seen as "not particularly cutting-edge". In this chapter, Surden reminds the reader that there is no need to "focus on the latest and most advanced technologies to facilitate new and useful analytical abilities in law".

Part I addresses the law of obligations. In Chapter 3, TT Arvind examines AI-infused contracting (that is, the use of AI in contracting). Based on the "joint maximisation" theory of contract law, and drawing upon Mary Douglas' "grid-group cultural theory" and Marshal McLuhan's "tetrad of effects of technologies", Arvind proposes embedding a principle of "transactional responsibility" into "AI-infused contracting systems" to promote their "resilience and trustworthiness". In Chapter 4, Anthony J Casey and Anthony Niblett discuss self-driving contracts. "Self-driving contracts" refer to contracts that incorporate AI-driven "micro-directives" that automatically determine the parties' obligations based on external data. The use of AI in this context (for example, in the dynamic pricing of taxi services) is a relatively recent phenomenon, giving rise to novel opportunities and difficulties. This chapter highlights some potential use cases of self-driving contracts and some attendant challenges. Whilst the authors do fairly point out some of the difficulties that will inhibit the use of self-driving contracts, they ultimately appear to be optimistic about the eventual replacement of "conventional" contracts with self-driving contracts. With respect to the authors, however, this optimism may need to be tempered with some additional considerations. The first consideration is that AI optimism is often predicated on an assumption that sufficient technological advancement will occur in future to make the purported use cases technically feasible; yet the distance between the current state of the art and the future state necessary to make some of the use cases a reality may be so large as to call for some scepticism in this regard. The second consideration is that there are reasons why people may choose not to use self-driving contracts even if they could. The authors do mention that distrust of algorithms may limit uptake of self-driving contracts, but there are other reasons too: people could prefer the transparency of contractual provisions stated in words over the opacity of complex algorithms, and people could prefer the certainty of static contractual obligations over the dynamic obligations of self-driving contracts.

In Chapter 5, Jeannie Marie Paterson and Yvette Maker focus on consumer protection. They consider a slew of risks that could arise from "AI consumer products" (that is, consumer products that incorporate AI), ranging from privacy concerns to product safety issues. This chapter also raises subtler issues pertaining to the degradation of individual autonomy and interpersonal relationships that an over-reliance on AI consumer products may engender. In Chapter 6, Phillip Morgan considers the impact of AI on vicarious liability in tort law. In this chapter, Morgan identifies a "liability gap" arising from the replacement of employees with AI, arguing that there is a need for a statutory scheme of vicarious liability for harms caused by AI systems. In Chapter 7, James Goudkamp discusses automated vehicle liability, and in particular the statutory liability regime established in the UK by the Automated and Electric Vehicles Act 2018 ("AEV Act"). Goudkamp highlights some problems with the liability regime set out in the AEV Act, including several ways in which it is inconsistent with the liability regime for conventional vehicles. He concludes that the AEV Act "will require overhauling sooner rather than later". In Chapter 8, Sandy Steel discusses how aspects of AI can create problems in the context of legal causation. First, he considers how the opacity of certain types of AI may make it difficult to prove causation. Second, he considers how the apparent autonomy of certain types of AI may lead to arguments that an AI system's intervention breaks the chain of causation or causes harms that are unforeseeable. In Chapter 9, Vibe

Ulfbeck examines the application of product liability law to AI products, focusing
on the EU's product liability regime. Ulfbeck conducts an analysis of the issues
that arise when the notion of "defectiveness" is sought to be applied to AI prod-
ucts, and also considers how AI products affect the "value chain". In light of the
challenges posed by AI products to the central concepts of "defectiveness" and the
"value chain", this chapter ultimately calls into question whether product liability
law can accommodate AI products without losing its coherence. In Chapter 10, John
Zerilli discusses the problem of deepfakes (that is, images or videos that have been
edited by AI so as to replace a person's appearance or voice with another's). Zerilli
identifies certain existing torts that may be suitable for protecting individuals from
being harmed by deepfakes, but also highlights the gaps left behind by these exist-
ing torts. Accordingly, he makes the case that there is a need for the UK to recognise
a new dignitary tort of "appropriation of personality". As Zerilli focuses primarily
on the common law torts and the tort of harassment, one minor comment which
may be made is that this chapter could perhaps have included a closer examination
of the statutory data protection rules and how they offer protection against unautho-
rised deepfakes, because the creation and publication of deepfakes of an identifiable
individual likely constitutes "processing" of that individual's personal data, which
attracts regulation by data protection law.

In Chapter 11, Daniel Seng and Tan Cheng Han consider the interface between
AI and agency law. In particular, they critically examine the argument that cer-
tain legal problems could be resolved by treating AI systems as "legal agents". The
authors undertake an assessment of the purported justifications for treating AI sys-
tems as "legal agents", and ultimately conclude that AI systems cannot presently
be regarded as "legal agents". They suggest an alternative view of AI systems as
"instrumentalities" of persons. In Chapter 12, Anselmo Reyes discusses how AI
can be used in trusts. Reyes explains how AI systems could be used to adminis-
ter express and charitable trusts, and also considers the role that AI systems could
play in resulting and constructive trusts. While he recognises that there are certain
limits to how far AI can operationalise equitable principles, he takes an optimistic
view of the future usefulness of "robot trustees". In Chapter 13, Ying Hu addresses
the question of whether restitutionary remedies can be obtained against companies
that benefit from the use of personal data (for example, to train an AI system). She
argues that the cause of action of unjust enrichment could be a viable way of pro-
viding restitutionary relief, and that the remedy of disgorgement could be justifiably
awarded as a response to certain privacy wrongs.

Part II deals with property. In Chapter 14, Kelvin FK Low, Wan Wai Yee, and
Wu Ying-Chieh address three questions relating to property and personhood: when
should machines be regarded as having acceded to a person; when should machines
be regarded as legal persons; and whether data should be regarded as property.
Broadly, the authors offer sound resistance against the unnecessary distortion of
legal concepts, supporting instead the principled application of existing legal doc-
trine. In Chapter 15, Dev S Gangjee explores the challenge that data poses to intel-
lectual property law, and the EU's endeavours to confer rights to data producers. In
particular, he explains why the "data producer's right" approach adopted by the EU
has been thus far unproductive, and proposes a different regulatory approach based
on the "constructed commons" model. In Chapter 16, Anke Moerland examines

how intellectual property law protects the output of AI, as well as the AI technologies themselves. She considers both copyright law and patent law (focusing on EU law), and draws out some of the complexities that can arise when applying intellectual property law to AI. In Chapter 17, Daniel Seng discusses the interaction between Internet intermediary immunity and the use of AI by these intermediaries. He analyses the way in which intermediaries rely on automation to take advantage of statutory immunities available under US law and argues for reform to promote more responsible behaviour by intermediaries. This chapter is especially important, as it surfaces and questions a common assumption that has underpinned the way in which Internet intermediaries work, and that has arguably permitted (and continues to permit) these intermediaries to inflict harm. The assumption, broadly stated, is that intermediaries should enjoy legal immunities for the things that they do when they operate "merely" as intermediaries. In this regard, Seng makes a number of proposals to limit intermediary immunity, and although the proposals are modest, they are also urgently needed.

Part III focuses on corporate and commercial law. In Chapter 18, Deirdre Ahern probes the potential effects of AI in corporate law and corporate governance. She considers the legal implications of using (or not using) AI in corporate functions, including the fascinating idea of recognising AI systems as "robo-directors" on corporate boards. In Chapter 19, Gérard Hertig examines the role of AI systems in financial supervision. He highlights both the risks arising from the use of AI by financial institutions, and the possibilities of using AI to regulate financial markets. He also details the steps that international and national financial regulatory organisations have taken in this regard. In Chapter 20, Iris H-Y Chiu looks into the use of AI by financial advisory intermediaries, and the rise of the "robo-advice" industry. She considers how the regulatory rules on the provision of financial advice has influenced the development of the robo-advice industry into a low-cost and non-bespoke industry. She also points out the downsides of such a development and offers a range of reform proposals to improve the robo-advice industry. In Chapter 21, Thomas Cheng deals with the interface between competition law and AI, and in particular the regulation of "autonomous algorithmic collusion" (that is, automatic collusion among firms, facilitated by algorithms). He focuses on forms of tacit collusion that are enabled by algorithms and makes the argument that firms should be held responsible for such tacit collusion.

In Chapter 22, Sean Thomas discusses the applicability of sales law to AI systems. He touches upon the possibility of regarding AI systems as goods for the purposes of sales law, and explains that any transactional regime for AI systems must deal with issues relating to ownership and to the right to repair. In Chapter 23, Anselmo Reyes and Adrian Mak consider the use of AI for commercial dispute resolution. They contemplate how predictive AI systems could be used by adjudicators to assist in decision-making, and (more futuristically) the necessary conditions for AI systems to replace human adjudicators entirely. In Chapter 24, Özlem Gürses explains the impact of AI on insurance law. She explores the implications of InsurTech for various aspects of insurance law, but ultimately presents a sceptical response to the view that InsurTech has been disruptive to insurance law. In Chapter 25, Eric C Chaffee offers a range of options for the regulation of AI-driven robo-advisers by securities regulations. He highlights various models of regulation (such as "design

intervention" and regulation by disclosure) and suggests that an optimal regulatory model would incorporate a mixture of several models. In Chapter 26, Jeremias Adams-Prassl considers the challenges created by AI for employment law. In particular, he addresses the rise of "algorithmic management", and he argues that traditional regulatory regimes of worker protection need to be supplemented in light of algorithmic management.

Part IV provides some comparative perspectives. In Chapter 27, Ugo Pagallo compares how EU and US data privacy law regulates AI systems. He points out a number of areas of divergence, but suggests that there may be some consensus on the need for a "proactive" approach to privacy protection. In Chapter 28, Nadia Banteka addresses the theoretical question of whether AI systems can be legal persons and discusses the state of the law in the EU and the US. She argues that the standard spectrum used in ascribing personhood should be "inverted" for AI entities. In Chapter 29, Serena Quattrocolo and Ernestina Sacchetto identifies some lessons that may be learnt by other jurisdictions from the EU's attempt at AI governance.

The Cambridge Handbook of Private Law and Artificial Intelligence contains a wealth of insights about the implications of AI for private law. The editors have succeeded in putting together an impressive collection of essays that runs the gamut of private law, collaborating with authors who have delivered both incisive legal analyses and thought-provoking challenges to the status quo. This book will appeal to anyone who is interested in expanding the horizons of their thinking about AI and the law.

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