

## INTRODUCTION

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1 The rapid rise of artificial intelligence (“AI”), particularly generative AI, has profoundly transformed the landscape of creative endeavours and intellectual property (“IP”) law. The year 2023 marked a watershed, as generative AI systems such as ChatGPT, Midjourney, and Gemini entered mainstream global use. Their ability to autonomously generate new outputs has blurred the boundaries between human and machine creation, challenging the long-standing legal doctrines of IP law. Across jurisdictions, courts and lawmakers are now confronting fundamental questions about the scope, function, and justification of IP protection in the age of generative AI. Although debates on AI and IP increasingly transcend national boundaries, scholarly and policy attention remain disproportionately concentrated on Europe and North America. The Asia-Pacific region, with its diverse legal traditions, dynamic markets, and rapidly evolving technological ecosystems, has attracted comparatively less scrutiny. This Special Issue of the *Singapore Academy of Law Journal* aims to address this gap by bringing together leading scholars and practitioners from the region to examine how Asia-Pacific jurisdictions are adapting and reinterpreting their IP frameworks in response to the transformative influence of AI.

2 More specifically, this Special Issue is the corollary of the *Colloquium on Current Issues in AI and Intellectual Property in the Asia-Pacific*, convened by the Centre for Digital Law at Singapore Management University (“SMU”) with support from Google. We convened this Colloquium with industry support and broad participation

in order to contribute to the growing, but still relatively nascent, body of scholarship on this emerging problem area on which industry and the policy community can draw. In total, the Colloquium comprised four roundtable discussions – namely, a preliminary or framing roundtable in December 2023, two substantive roundtables in 2024, and a final conference in April 2025 at which draft papers were presented and discussed. Held under the Chatham House Rule, the proceedings brought together academics, policymakers, practitioners, and industry experts for open and in-depth exchanges on the future of IP in an AI-driven world.

3 Initially, we sought to develop a “heat map” of AI and IP issues, with the intention of conducting a deep dive into the doctrinal and then the policy aspects of each of those issues. Copyright loomed large on the heat map, although other IP rights (such as patents) and adjacent regimes (such as moral rights) were also prominent. The standout characteristic of the roundtables, however, was (despite active moderation) the tendency for “big questions” to bleed into the doctrinal debate. Discussions traversed issues of data governance, authorship, liability, and the balance between innovation and regulation, revealing enduring tensions between human creativity and machine production. The depth and breadth of the discussions were enhanced by the presence and active participation of practitioners, technical experts, and academics from varied stakeholder communities. This “trilogue” of industry, government, and academia benefitted from the neutrality of the university setting and has certainly set the benchmark for future dialogues at the intersection of law and technology.

4 The articles in this Special Issue build on those rich discussions, collectively tracing the region’s emerging responses to generative AI – from conceptual critique to doctrinal reform and regulatory design – and offering a comprehensive and forward-looking view of how the Asia-Pacific region is navigating the rapidly evolving relationship between AI and IP. Through its interdisciplinary approach and regional emphasis, this Special Issue hence makes a significant contribution to the evolving global discourse on AI and IP.

5 The Special Issue opens with Jason Grant Allen’s article, “Destination Unknown: AI and IP in the Digital Economy”. Allen situates the discussion within the broader political economy of data, arguing that generative AI exposes structural blind spots in liberal private law, with IP serving as a paradigmatic instance. He shows how copyright’s statutory concepts, including copying, reproduction, and adaptation, fail to capture the extraction and recombination of human creative labour that underlie large language model training. By tracing what he terms the “double extraction” of value, first through Web 2.0’s attention economies and now through data-driven AI generation, Allen argues

that this dynamic of enclosure renders the current model unsustainable, as human creativity becomes increasingly scarce and newly valuable. Drawing on Rawls' notion of the "original position" and Pistor's "code of capital" as framing devices, Allen urges a re-examination of distributive and institutional frameworks aimed at restoring reciprocity in the digital economy. In doctrinal terms, he proposes a reform agenda that includes recalibrating contract and property frameworks, developing collective licensing mechanisms, extending personality-based rights, safeguarding the data commons, and experimenting with protocol-level remuneration.

6 Wenting Cheng and Georg Zoeller's article, "Building Sandcastles at High Tide: Contracts in the IP Regulation of AI Training Data", complements this systemic discussion with a focused exploration of contractual governance. The article examines how contracts, including collective licensing agreements, have been promoted as flexible instruments for managing rights in training data, but they remain fragmented and unstable when confronted with overlapping regimes of copyright, competition, and consumer law. Through the metaphor of the "sandcastle", Cheng and Zoeller illustrate the fragile and fleeting nature of contractual ordering in the AI era. They argue that while contracts can respond to specific interests and circumstances, private agreements alone cannot provide a coherent nor enduring framework for governing the use of data in AI model training.

7 The Special Issue next considers the deeper conceptual challenges of creativity and authorship in the AI era. Joshua Yuvaraj's article, "Does This Unit Have a Soul? AI-Generated Works, Creativity Theory, and Copyright Policy", draws on insights from psychology, neuroscience, and creativity theory to assess whether AI can meaningfully be considered creative. He reaches a nuanced finding: "AI is more than a tool but not fully creative". Building on this insight, Yuvaraj proposes a calibrated policy response that extends limited protection to AI-generated outputs through adapted computer-generated works provisions, while preserving the primacy of human creative labour and public access to creative expression. His framework invites further reflection on how copyright can accommodate the increasingly blurred boundaries between human and machine creativity.

8 Huijuan Peng and David Tan's article, "Copyright in the Generative AI Era: Reimagining Creativity and Fairness", advances the discussion further through a comparative analysis of the copyright regimes in the United States, China, and Singapore. Peng and Tan examine the need for copyright reform to address the transformative impact of generative AI, which unsettles long-standing doctrines of originality, the idea-expression dichotomy, substantial similarity, and fair use. Identifying creativity and fairness as overarching themes

shaping the development of copyright law, they propose a multi-factor framework for determining when human involvement in AI-generated works merits authorship recognition. Their analysis of fair use and text and data mining (“TDM”) exceptions highlights the fragmented and evolving global landscape of copyright limitations in the context of AI training, advancing a three-part reform framework for a TDM exception grounded in purpose limitation, transparency, and opt-out safeguards. Framed by broader policy goals of protecting human creativity, fostering innovation, and promoting legal predictability, Peng and Tan articulate a forward-looking vision for copyright law in the generative AI era.

9 Subsequent contributions focus on more specific doctrinal questions. Saw Cheng Lim’s article, “Copyright Ownership and Duration of AI-Authored Works”, examines who, in law, should own rights in AI-authored works and how long such rights should subsist. The discussion proceeds on the premise that Parliament has accepted the notion of AI authorship and recognises the possibility that copyright may subsist in works created autonomously by AI. Drawing on the doctrine of accession as a principled basis for allocating ownership over valuable but unowned resources, Saw argues that copyright in AI-authored works should by default vest in the owner of the AI system. Recognising the accepted wisdom that AI systems do not possess moral rights and the need to prevent disproportionate rewards for investors, he proposes a shorter term of protection of three to five years and suggests that this approach offers a pragmatic balance between incentivising innovation and safeguarding public access in the knowledge-based, AI-driven economy. His article concludes that the time has come for Parliament to act on this issue, translating principle into law.

10 Ari Juliano Gema’s article, “Assessing the Originality of Works Created with the Assistance of Generative AI: An Indonesian Legal Perspective”, brings a Southeast Asian perspective to the global debate on authorship and originality. The article examines how Indonesian copyright law addresses the question of human contribution in works produced with the assistance of generative AI. Drawing on both domestic legislation and comparative insights, Gema proposes a structured four-step test, developed in response to the requirements of Art 34 of the Indonesian Copyright Law,<sup>1</sup> to assess originality by analysing the inputs and outputs of AI systems in relation to human creativity. This approach demonstrates how regional jurisprudence can adapt traditional concepts of labour, skill, and creativity to the realities of human-machine collaboration, providing a pragmatic framework for resolving future disputes concerning AI-assisted authorship.

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1 Law No 28 of 2014 on Copyright (Indonesia) (enacted on 16 October 2014).

11 WooJung Jon’s article, “Comparative Analysis of Text and Data-Mining Exception Clauses in South Korea, Singapore, and Japan”, highlights the growing importance of TDM exceptions as crucial legal foundations for AI innovation. The article begins by examining whether generative AI image models employing latent-space diffusion techniques infringe copyright in their training data and concludes that the underlying technical process generally does not reproduce protected expression. Building on this doctrinal analysis, Jon compares the legislative frameworks of Japan, Singapore, South Korea, and the European Union, demonstrating how clear, balanced, and technologically neutral TDM provisions can indeed facilitate data-driven research while safeguarding authors’ legitimate interests. He ultimately calls for South Korea to adopt a dedicated TDM exception that aligns with international best practices, enhances legal certainty, and recognises the socially beneficial use of copyrighted materials for AI training.

12 Jianfeng Cao and Jiahui Chen’s article, “Copyright Alignment for Generative AI: Designing a Dual-Phase Duty-of-Care Regime in China”, proposes a comprehensive framework that connects copyright compliance with verifiable technical and organisational duties across the AI lifecycle. The authors distinguish between the training and deployment stages, conditioning the lawfulness of model training on *ex ante* copyright alignment through lawful data access, dataset governance, and anti-memorisation safeguards, as well as assigning proportionate, auditable duties to platform providers at deployment. Their model integrates established copyright principles with technical measures such as watermarking, provenance tracing, and audit mechanisms to translate abstract legal standards into operational compliance practices. Cao and Chen argue that this dual-phase duty-of-care regime reconciles robust copyright protection with continued AI innovation and provides a foundation for adaptive, future-oriented governance in China’s generative AI ecosystem.

13 The final contribution by Poomsiri Dumrongvute and Sukhprem Sachadecha, titled “Bridging Statutory Exclusion and Administrative Exception: AI Patent Workarounds and Policy Reform in Thailand”, shifts the focus from copyright to patent law. Their article uses Thailand’s software and AI patent regime as a case study to examine how statutory exclusion under s 9(3) of the Patent Act,<sup>2</sup> which bars “computer programs *per se*”, is managed through administrative guidelines that recognise “computer-related inventions” producing demonstrable technical effects. Drawing on an empirical review of 13 borderline published patent applications, the authors identify practical drafting strategies that

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2 BE 2522 (1979) (Thailand) (as amended up to Patent Act (No 3) BE 2542 (1999)).

combine physical elements, quantifiable outcomes, and novel technical features to satisfy the *de facto* requirement of technical character. While these administrative workarounds have enabled patent protection for genuine AI inventions, they have also introduced legal uncertainty and inconsistency in patent examination. To address these challenges, Dumrongvute and Sachadecha propose amending s 9 to codify a “further technical effect” exception, aligning Thailand’s framework with international best practices while maintaining regulatory flexibility to foster innovation.

14 Taken together, the nine contributions reveal the diversity and currency of contemporary debates on AI and IP across the Asia-Pacific. Collectively, they highlight several shared themes. Foremost among these is the persistent tension between private ordering and public regulation in the governance of AI development. Across jurisdictions, the tension between contractual autonomy and regulatory oversight remains unresolved, particularly with respect to data access and AI training. A second recurring theme is fairness, which emerges not only as a doctrinal common denominator but also as an ethical and distributive value guiding reform. Fairness connects several proposals postulated in this Special Issue, including collective licensing, short-term copyright ownership, and duty-of-care obligations, each seeking to balance innovation with equitable participation in the benefits of AI. A third theme is interdisciplinarity, reflecting the reality that effective regulation of AI cannot be achieved within the confines of IP law alone, or even of law itself. Effective governance must draw on insights from computer science, economics, and ethics alongside legal reasoning. Finally, the Asia-Pacific context demonstrates that legal innovation is not the exclusive domain of Western systems. The region’s emerging proposals and evolving practices – including China’s proposed duty-of-care framework, Thailand’s proposed patent reforms, Singapore’s computational data analysis exception, and Indonesia’s ongoing discussions on originality methodology – suggest how local adaptation and implementation can generate models of potential global relevance. This Special Issue therefore goes beyond merely surveying doctrinal challenges to also portray a regional flavour of jurisprudential reimagination, in which Asia-Pacific jurisdictions are now developing their own normative vocabularies for the AI era. The contributions gathered here reflect rigorous legal scholarship and the spirit of cross-sector collaboration that clearly underpinned the Colloquium. They demonstrate that, in a field where international consensus remains tentative (perhaps even elusive), the Asia-Pacific is not merely contributing to global debates but also actively shaping them through comparative perspectives that inform both domestic policy and the evolution of international norms.

15 As Guest Editors, we extend our sincere gratitude to all contributors for their thoughtful scholarship and commitment to this project. The pace of legal developments in this space is swift, and in the weeks leading to publication, some landmark decisions were announced in other jurisdictions. Some of these have been referenced in some of the articles but time has precluded any full consideration. That said, recent developments have confirmed the topicality and relevance of the issues dealt with in the Special Issue and the value of the perspectives shared herein. We are especially grateful to Jean-Jacques Sahel and his team from Google for their generous support – not only for providing the means to convene the Colloquium, but also for participating in our discussions – and to all participants of the Colloquium whose insights and candid perspectives greatly enriched the intellectual foundations of this volume. The Colloquium was an in-person event, and we would like to thank, in particular, those participants who travelled from around the region to join us in Singapore. We also thank the reviewers and editorial team of the *Singapore Academy of Law Journal*, particularly Elizabeth Sheares, Deanna Kwok, and Nuraziah Aziz, for their guidance and dedicated work, as well as Jaslynn Shu and Mabel Choo Zi Ling from the SMU Centre for Digital Law for their excellent administrative assistance. (Allen and Saw would also like to give Huijuan Peng their thanks for her diligence and hard work.) This Special Issue is a product of collective (human) effort that would otherwise not have been possible without the contributions and support of all who participated. Finally, we express our deep appreciation to our institutional partners and colleagues across the Asia-Pacific for their cordial collaboration and shared commitment to advancing constructive dialogue at the intersection of AI and IP law. We hope that this Special Issue will inspire further reflection and discourse on its themes and their implications and look forward to continued engagement in this field through scholarship, dialogue, and practice in the years ahead.

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