

Copyright and Artificial Intelligence

Public Consultation Paper



Commerce and Economic Development Bureau
Intellectual Property Department

Contents

Executive Summary	3
Chapter 1 Introduction	5
Chapter 2 Copyright Protection of AI-generated Works.....	8
Chapter 3 Copyright Infringement Liability for AI-generated Works .	22
Chapter 4 Possible Introduction of Specific Copyright Exception	30
Chapter 5 Other Issues Relating to Generative AI	43
Chapter 6 Invitation of Views.....	52

This paper states the laws and situations of other jurisdictions as at 3 July 2024.

Executive Summary

This consultation document focuses on copyright issues arising from artificial intelligence (“**AI**”), especially generative AI. It aims to examine Hong Kong’s copyright system against the issues of AI, with a view to ensuring that it encourages creation and investment in creativity while supporting innovation. This is part of a comprehensive strategy to enhance Hong Kong’s role as a regional intellectual property (“**IP**”) trading centre, an international innovation and technology centre, and an East-meets-West centre for international cultural exchange under the National 14th Five-Year Plan.

As set out in Chapter 2 of the document, the existing Copyright Ordinance (Cap. 528) (“**CO**”) is capable of protecting works generated by generative AI (“**AI-generated works**”), covering original literary, dramatic, musical and artistic works as well as sound recordings, films, broadcasts, cable programmes and the typographical arrangement of published editions. The general expression “computer-generated” adopted in the CO is sufficiently flexible to accommodate evolving technologies and covers works generated by computer where there is no human author.

Chapter 3 mainly considers the issue of copyright infringement arising from AI-generated works, which should be determined on a case-by-case basis. The existing broad and general provisions on liability in the CO and market practice of contractual arrangements between AI system owners and end-users should be relevant to address the issue of copyright infringement.

Chapter 4 explores the possible introduction of a new and specific copyright exception to allow reasonable use of copyright works for computational data analysis and processing, covering conventional text and data mining and the training of AI models. To this end, it discusses the need for a tailored exception (“**Proposed TDM Exception**”), which may cover non-commercial and commercial uses to foster the growth of the AI industry, with adequate safeguards provided to copyright owners in order to maintain a proper balance of interests, such as requiring lawful access to copyright works, rendering the relevant activities unauthorised if licensing schemes are available or copyright owners have expressly reserved their rights, and/or imposing restrictions on further communication/distribution/dealing of the copy made under the Proposed TDM Exception.

Chapter 5 explores the implications of issues related to generative AI, namely deepfakes and transparency of AI systems, which are not exclusively or directly tied to copyright. It discusses their intersection with IP rights including copyright, personal data privacy, spread of fake and biased information, and ethics, and their relevance in Hong Kong. As these two issues are not confined to the realm of copyright and are closely related to various other domains, we do not consider it appropriate to address them separately and solely from the perspective of copyright.

This consultation document seeks the views of the public on a range of matters. The consultation period will last until 8 September 2024.

Chapter 1 Introduction

1.1 As the world continues to witness the rapid advancements in artificial intelligence (“AI”)¹, AI is igniting a revolutionary impact across diverse domains and industries worldwide—from the realms of innovation and technology (“I&T”) to manufacturing, health sciences, education, creative industries, media, and beyond. The accelerated technological development and breakthroughs of AI are also reshaping Hong Kong’s I&T landscape, creative industries, other industry structures and economic pivot. AI is an important engine for developing “new quality productive forces”. In the 2024-25 Budget, the Financial Secretary expressly recognised AI as an important driver of a new round of technological and industrial transformation, as well as a key to propelling the development of a digital economy.

AI Development in Hong Kong

1.2 AI is catalysing substantial new prospects for global economic growth and scientific advancement. It has emerged as a critical trend that is integral to transforming Hong Kong into an international I&T centre, one of the “eight centres” under the National 14th Five-Year Plan. Under the “one country, two systems” principle, Hong Kong benefits uniquely from robust national support and a direct gateway to global interactions. Hong Kong also possesses significant edges in AI development, including a strong research base and a vibrant research and development (“R&D”) environment. The Hong Kong Innovation and Technology Development Blueprint promulgated by the Government in December 2022 highlights AI and data science as one of the strategic technology industries with an edge to develop in Hong Kong. To this end, the Government has been developing and investing in the AI ecosystem under a holistic and multi-pronged approach, covering the implementation of various policies, guidelines and regulations; supporting technology and R&D; nurturing of talents; and enhancement of infrastructure.²

¹ There is no single definition for the term “artificial intelligence”. For the purpose of this paper, we refer to AI as a discipline of computer science aimed at developing machines and systems that can carry out tasks considered to require human intelligence (such as finding correlations and making predictions, recommendations or decisions), and that they are designed to operate with varying levels of autonomy.

² See paper on enhancing digital infrastructure and support to the development of the AI ecosystem issued by the Innovation, Technology and Industry Bureau for the Legislative Council Panel on Information Technology and Broadcasting in April 2024 (<https://www.legco.gov.hk/yr2024/english/panels/itb/papers/itb20240408cb1-369-2-e.pdf>).

1.3 The influence of AI technology extends well beyond the traditional boundaries of I&T. In response, various policy bureaux and departments are devising policies and measures to tackle diverse challenges associated with AI’s evolution and specific to their policy regimes. For instance, in the realm of financial technology, Hong Kong, as an international financial centre, has witnessed the integration of AI across sectors including banking, securities, and insurance. To safeguard the overall financial security with responsible use of AI, the potential risks posed by AI have been suitably reflected in the relevant regulations and/or guidelines issued by financial regulators. Another example is the concerns related to privacy and personal data protection, which are also critical in the context of AI. The Office of the Privacy Commissioner for Personal Data has in this regard also issued guidance materials aimed at guiding the development, procurement and use of AI with a focus on safeguarding personal data privacy and facilitating compliance with the Personal Data (Privacy) Ordinance (Cap. 486) (“PDPO”).³

AI and Copyright

1.4 Among the various issues related to AI, protection of intellectual property (“IP”) rights covering copyright is a major issue which warrants attention. The central theme of this consultation paper is a number of copyright issues in relation to AI. This focus is crucial, especially considering the significant implications for the I&T and creative industries posed by the emergence of generative AI. Generative AI, developed and trained using data that may encompass copyrighted works, produces outputs with rich content such as text, images, audio, video, and other content in response to users’ prompts.⁴ The implications of this technology on copyright law are profound and warrant careful consideration.

³ The Office of the Privacy Commissioner for Personal Data is an independent statutory body set up to monitor, supervise, promote and enforce compliance with the provisions of the PDPO which came into force on 20 December 1996. It has published, amongst others, guidelines on the development and use of AI from the perspective of personal data privacy (see “Guidance on the Ethical Development and Use of Artificial Intelligence” (August 2021) at https://www.pcpd.org.hk/english/resources_centre/publications/files/guidance_ethical_e.pdf) and recommendations on protection of personal data privacy in organisations that handle personal data when procuring, implementing and using AI systems (see “Artificial Intelligence: Model Personal Data Protection Framework” (June 2024) at https://www.pcpd.org.hk/english/resources_centre/publications/files/ai_protection_framework.pdf).

⁴ Some notable examples of generative AI tools on the market are ChatGPT, DALL·E and Sora by OpenAI, ERNIE Bot by Baidu, Gemini by Google, Copilot by Microsoft, Stable Diffusion by Stability AI, Midjourney, Soundraw, Boomy and Suno.

1.5 Recognising the critical role of copyright protection as a cornerstone of innovation and creativity, the Government consistently undertakes to review and enhance our domestic copyright regime⁵ as a matter of priority. Copyright protection, by offering economic incentives for the creation and exploitation of creative works, is a fundamental pillar of Hong Kong’s IP protection regime. Regular updates ensure that our system aligns with evolving international norms and effectively supports creativity and technological advancement. These efforts are crucial for fostering a high-quality, knowledge-based economy through innovation and creativity. The Commerce and Economic Development Bureau (“**CEDB**”) leads this initiative, aiming to establish Hong Kong as a regional IP trading centre. This ambition complements our broader goals under the National 14th Five-Year Plan to develop Hong Kong as an international I&T centre and an East-meets-West centre for international cultural exchange.

1.6 Against the above background, the Chief Executive announced in his 2023 Policy Address that the Government will conduct a consultation in 2024 to explore further enhancement of the Copyright Ordinance (Cap. 528) (“**CO**”) regarding protection for AI technology development. Following a review of our existing regime and developments on the international stage, this consultation paper sets out the following issues pertinent to generative AI as well as the Government’s views thereon—

- (a) Copyright protection of works generated by generative AI (“**AI-generated works**”) (Chapter 2);
- (b) Copyright infringement liability for AI-generated works (Chapter 3);
- (c) Possible introduction of specific copyright exception (Chapter 4); and
- (d) Other issues relating to generative AI (Chapter 5).

1.7 We welcome views on the above issues which we would consider carefully in formulating the way forward as part of our ongoing efforts to keeping our local copyright regime robust and up-to-date. Our aim is to strike a proper balance between copyright protection and reasonable use of copyright works, and ensure that Hong Kong’s copyright regime is on par with the corresponding legal positions and developments of other major jurisdictions.

⁵ The latest enhancement of our copyright regime is the enactment of the Copyright (Amendment) Ordinance 2022 effective 1 May 2023 for strengthening copyright protection in the digital environment.

Chapter 2 Copyright Protection of AI-generated Works

2.1 Copyright protection plays a crucial role, on the one hand in fostering creativity by ensuring that the efforts of writers, artists, designers, filmmakers, publishers, and other contributors in the creative industries are rewarded, and also in striking a balance between the rights of copyright owners and the public interest on the other. In this connection, a robust copyright regime not only supports the growth of the creative industries by reassuring investors of a free and fair environment for launching, developing and promoting their creative ventures, but also provides the public with access to diverse and creative works for permitted uses.

2.2 Traditionally, the authors of copyright works are natural persons, i.e. humans.⁶ However, with technological advancements, particularly the emergence of generative AI in recent years, a significant shift has occurred. Nowadays, machines and computing systems can generate works such as literature, visual arts, music composition and beyond. This development sparks a paradigm shift in the creative realm, profoundly impacting both the production and consumption of creative works.

2.3 This chapter evaluates whether our existing copyright framework is well-equipped to navigate the new landscape driven by generative AI and cope with the issues arisen. It begins by summarising the protection which the existing CO affords to AI-generated works⁷, and examining how the relevant statutory provisions apply to AI-generated works. It then examines the situations in other major jurisdictions and assesses the case for introducing legislative amendments to the CO to further enhance the relevant regime.

Existing Legal Position

2.4 Under the CO, copyright subsists in four types of original works (namely literary, dramatic, musical and artistic works (“**LDMA works**”)) as well as sound

⁶ Depending on the situations, the authors of copyright works can be corporate entities, such as producers of sound recordings/films, makers of broadcasts, providers of cable programme services, and publishers of typographical arrangement of published editions.

⁷ AI-generated works are works that are created and generated by generative AI **without a human author** based on users’ prompts. This is distinct from works created by human authors who utilise AI systems as a tool to aid their creative processes (“**AI-assisted works**”), e.g. using an AI system as a mere tool to touch up the photograph created by a human author. The established principles of the current copyright law are generally applicable to AI-assisted works.

recordings, films, broadcasts, cable programmes and the typographical arrangement of published editions (“**non-LDMA works**”).⁸ The ensuing paragraphs discuss how the existing provisions of the CO provide protection to (A) AI-generated LDMA works and (B) AI-generated non-LDMA works.

(A) AI-generated LDMA Works

2.5 LDMA works must satisfy the originality requirement⁹ before copyright can subsist in the works. The CO identifies two types of LDMA works, namely (a) those created by a human author (“**ordinary LDMA works**”), and (b) those generated by computer in circumstances such that there is no human author,¹⁰ i.e. computer-generated works (“**CG LDMA works**”), and affords these two types of works with different scope of protection as tabulated below—

LDMA works	Originality requirement	Creator in real life	Author ¹¹	First copyright owner ¹²	Duration of copyright ¹³	Moral rights ¹⁴
Ordinary LDMA works	Yes	Human author	Human author		Author’s life plus 50 years after death	<ul style="list-style-type: none"> • right to be identified as the author • right to object to derogatory treatment of the work • right against false attribution of a work

⁸ See section 2(1) of the CO.

⁹ See paragraph 2.20 below.

¹⁰ The definition of “computer-generated”, in relation to a work, is in section 198(1) of the CO.

¹¹ The general rule is that the author, in relation to a work, means the person who creates it (see section 11(1) of the CO).

¹² Under section 13 of the CO, the author of a work is the first owner of any copyright in it, subject to section 14 (where the work is an employee work), section 15 (where the work is a commissioned work), and section 16 (where the work in which copyright of the Government, etc. subsists).

¹³ See section 17(2) (for ordinary LDMA works) and section 17(6) (for CG LDMA works) of the CO.

¹⁴ Independent of the copyright subsisting in a work, moral rights are available for LDMA works (see sections 89 to 100 of the CO), but the scope of moral rights concerning CG LDMA works is narrower than that concerning ordinary LDMA works (see the exceptions to rights in sections 91(2)(c) and 93(2) of the CO).

LDMA works	Originality requirement	Creator in real life	Author ¹¹	First copyright owner ¹²	Duration of copyright ¹³	Moral rights ¹⁴
CG LDMA works	Yes	Computer (without human author)	Person by whom the arrangements necessary for the creation of the work are undertaken ¹⁵		50 years from which the work was made	<ul style="list-style-type: none"> • right against false attribution of a work

2.6 As illustrated above, the scope of protection for CG LDMA works under the CO is more confined than that for ordinary LDMA works, in that CG LDMA works without human authors have a shorter duration of copyright and more restrictive moral rights.

2.7 Based on the plain reading and literal interpretation of the provisions governing CG LDMA works (“CGWs provisions”) under the CO, AI-generated LDMA works, being works generated by computational AI systems in circumstances such that there are no human authors of the works, should fall within the ambit of the CGWs provisions.¹⁶

(B) AI-generated Non-LDMA Works

2.8 Besides original LDMA works, copyright also subsists in sound recordings, films, broadcasts, cable programmes and the typographical arrangement of published editions. In general, copyright subsists in these non-LDMA works as long as they are not copies of previous works. There is no originality requirement. The scope of protection afforded by the CO to non-LDMA works is tabulated as below—

¹⁵ Section 11(3) of the CO stipulates that—

“In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author is taken to be the person by whom the arrangements necessary for the creation of the work are undertaken.”

Section 198(1) of the CO stipulates that—

“computer-generated (電腦產生), in relation to a work, means that the work is generated by computer in circumstances such that there is no human author of the work;”

¹⁶ In contrast, where a human author creates an original LDMA work with the assistance of AI system (see footnote 7 above), such work is subject to copyright protection as an ordinary LDMA work.

Non-LDMA works	Originality requirement	Creator in real life	Author ¹⁷	First copyright owner ¹⁸	Duration of copyright ¹⁹	Moral Rights ²⁰
Sound recordings	No	No statutory restrictions/requirements in the CO that exclude computer as a creator	Producer ²¹		50 years from which the recording was made/released	N.A.
Films			Producer ²² and human principal director	(i) 50 years from which the death occurs of the last to die of the following persons— <ul style="list-style-type: none"> • principal director • author of screenplay • author of dialogue • composer of music specially created for and used in the film 	<ul style="list-style-type: none"> • right to be identified as the director • right to object to derogatory treatment of the work • right against false attribution of a work 	
				(ii) in case there is no such person falling in (i) above, 50 years from which the film was made	<ul style="list-style-type: none"> • right against false attribution of a work 	
Broadcasts			Person making the broadcast	50 years from which the broadcast was made	N.A.	
Cable programmes			Person providing the cable programme service	50 years from which the programme was included in the cable programme service	N.A.	
Typographical arrangement of published editions			Publisher	25 years from which the edition was first published	N.A.	

¹⁷ See section 11(2) of the CO.

¹⁸ See footnote 12 above.

¹⁹ See section 18 (for sound recordings), section 19 (for films), section 20 (for broadcasts and cable programmes) and section 21 (for typographical arrangement of published editions) of the CO.

²⁰ Independent of the copyright subsisting in films, the directors of films are entitled to certain moral rights (see sections 89 to 100 of the CO).

²¹ Section 198(1) of the CO stipulates that—
“*producer (製作人), in relation to a sound recording or a film, means the person by whom the arrangements necessary for the making of the sound recording or film are undertaken;*”

²² *Ibid.*

2.9 The CO does not have any provision similar to CGWs provisions governing computer-generated non-LDMA works. In this connection, the protection afforded to non-LDMA works applies regardless of whether these works are created by humans or computers.²³ The authorship and first copyright ownership²⁴ are generally attributed to a legal person responsible for the creation, whether that person is the producer of the sound recording or film²⁵, the maker of the broadcast, the provider of the cable programme service, or the publisher, as the case may be.

Examples

- (a) **Sound Recordings:** *Where a sound recording is generated by AI systems, the protection of such sound recording is no different from that of conventional sound recordings. In both scenarios, the author and the first copyright owner²⁶ of the sound recording would be the producer of the recording.²⁷ The duration of copyright is 50 years from which the recording was made/released.*
- (b) **Films:** *In cases where a film is made by human efforts, the producer and the human principal director are recognised as the authors and the first copyright owners. However, in the specific case where the making of an AI-generated film does not involve a human principal director, the fair reading of the relevant statutory provisions suggests that the producer²⁸ would be recognised as the author and the first copyright owner. Further, absent a human principal director, screenplay author, dialogue author and composer of music specially created for and used in the film, the duration of copyright in an AI-generated film is 50 years from which the film was made.²⁹*

²³ For the avoidance of doubt, the protection of copyright in any underlying LDMA works included in a non-LDMA works (e.g. a song in a film) should follow the provisions for LDMA works separately and independently.

²⁴ See footnotes 17 and 18 above.

²⁵ In the case of film, the authorship and the first copyright ownership are also attributed to the human principal director.

²⁶ See footnote 12 above.

²⁷ See footnote 21 above for the definition of “producer”.

²⁸ *Ibid.*

²⁹ In such case, the AI-generated film has a shorter duration of copyright than a film which is not produced by AI systems (of which the duration of copyright would be the lifespan of the key persons identified in the CO plus 50 years). Please see the table in paragraph 2.8 above for reference.

2.10 Summing up paragraphs 2.4 to 2.9 above, on the one hand the existing CGWs provisions in the CO are capable of protecting AI-generated LDMA works on the basis that these works are computer-generated without a human author, and that they satisfy the originality requirement; on the other hand, the protection afforded to non-LDMA works in the CO applies to AI-generated non-LDMA works as well. One can see that in point of fact the existing CO contains the necessary provisions which are applicable to provide copyright protection to AI-generated works.

Situations in Other Jurisdictions

2.11 Broadly speaking, there are two different approaches adopted for the time being, namely jurisdictions—

- (a) with specific CGWs provisions affording copyright protection to LDMA works generated by computers, i.e. non-humans; and
- (b) without any CGWs provisions, i.e. human authorship seems to remain as a pointer of copyright protection.

(A) Jurisdictions with CGWs Provisions

2.12 The United Kingdom (“UK”)³⁰ has its own CGWs provisions. Apart from Hong Kong, New Zealand³¹ also follows the UK’s approach by enacting its own CGWs provisions.³²

2.13 The UK conducted two rounds of public consultations on AI and copyright issues in 2020 and 2021/22. The 2020 consultation examined issues covering the use of copyright works and data by AI systems, whether copyright exists in works created by AI, and, if so, to whom copyright of these works belongs to. In light of the views

³⁰ Regarding the copyright protection of non-LDMA works, the legal provisions in the UK and Hong Kong are similar.

³¹ New Zealand does not have express provision similar to CGWs provisions for works other than LDMA works. Whilst New Zealand’s copyright law provides that the author of works other than LDMA works may be a natural person or a body corporate, such works also need to satisfy the originality requirement.

³² Other examples of jurisdictions with statutory provisions identical or similar to CGWs provisions of the CO are India, Ireland and South Africa. As to the exact wording of the relevant provisions and how the provisions apply to AI-generated works, one has to follow the respective copyright legislation and any of the case development in that regard.

received, the UK conducted another round of consultation in 2021/22 which focused on the copyright protection for computer-generated works, licensing and copyright exceptions for text and data mining (to be discussed in details in chapter 4), etc. In the absence of any evidence of harmful protection for computer-generated works, and given that a proper evaluation of the use of AI was by then impossible, and that any changes might result in unintended consequences, the UK government ultimately decided to maintain the status quo with its CGWs provisions, but would instead keep the law under review.

2.14 New Zealand conducted a consultation in 2018/19 to review its copyright law covering, amongst others, issues relating to AI and its domestic CGWs provisions. Its consultation paper, having mentioned that AI could pose challenges to traditional copyright notions like “originality” and “author”, sought views on the benefits and potential problems of their current legislation. Upon completing the consultation exercise, New Zealand has yet to announce any policy decision as to whether legislative amendments should be introduced to address the issues raised in its consultation exercise.

(B) Jurisdictions with No CGWs Provisions

2.15 Jurisdictions with no CGWs provisions include Australia, Canada, Mainland China, the European Union (“EU”), Singapore and the United States (“US”). Their respective copyright legislation and case law tend to suggest that original LDMA works or works of similar nature must have human authorship to qualify for copyright protection.³³ The degree of human involvement required for works generated by AI systems is assessed on a case-by-case basis to determine their entitlement to copyright protection.³⁴

2.16 The copyright law in this respect continues to evolve and remains under review in some of these jurisdictions. Mainland China has implemented specific rules for management of generative AI services in 2023³⁵ whereas the EU passed a specific

³³ Generally speaking, no human authorship is required for other copyright works or subject matters in Australia, Canada, Mainland China, the EU and Singapore, except for the US.

³⁴ For example, in the US, there is one pending court case regarding the copyright protection of AI-generated works.

³⁵ The “Interim Measures for the Administration of Generative Artificial Intelligence Services (生成式人工智能服務管理暫行辦法)” in Mainland China took effect on 15 August 2023.

regulation governing AI in 2024.³⁶ While both instruments contain comprehensive provisions for regulating the development and use of AI systems, they do not introduce any change to their respective copyright regimes. In other words, issues concerning copyright protection for AI-generated works in Mainland China and the EU by and large remain to be governed by their own existing copyright laws.

2.17 Canada conducted public consultations in 2021 and 2023, where it sought views on whether and how to change Canada’s copyright framework to address the authorship and ownership of works generated or assisted by AI. It proposed three possible approaches for consideration, one of which was to introduce provisions similar to the CGWs provisions.³⁷ So far, Canada has yet to put forward any legislative proposal concerning AI-generated works.

2.18 The US also conducted a public consultation on a wide range of issues in relation to generative AI and copyright in 2023, including the scope of copyright protection for works generated using AI systems. Similar to Canada, the consultation paper asked whether clarification of human authorship requirement was needed in its copyright legislation and whether legal protection for AI-generated works was desirable. In particular, it posed a question as to whether the Copyright Clause in the US Constitution permits copyright protection for AI-generated works. A report with respect to this issue is expected to be published later this year.

Issues Specific to CGWs Provisions

2.19 Whilst as stated in paragraphs 2.5 to 2.7 above the CGWs provisions of the CO are capable of protecting AI-generated LDMA works, their application to such works in certain respects may not be entirely straightforward as outlined below—

(A) Originality Requirement

2.20 All LDMA works, namely ordinary LDMA works and CG LDMA works, must satisfy the originality requirement for copyright to subsist. According to established case law, an ordinary LDMA work is considered original if a human author has

³⁶ The EU Artificial Intelligence Act (“AI Act”) has not yet come into force. It has been adopted by the EU Parliament in March 2024 and approved by the EU Council in May 2024. The Act is now pending for publication in the EU’s Official Journal for entry into force.

³⁷ The other two approaches are (a) to clarify that copyright and authorship apply only to works created by humans; and (b) to create a new and unique set of rights for AI-generated works.

expended sufficient independent skill, labour and/or judgment in the creation of the work, and the threshold for establishing originality in such cases is low.³⁸

2.21 The originality requirement has all along been understood as human-centric. The absence of leading case authority as to whether, and if so how CG LDMA works could be sitting well with the traditional originality requirement³⁹ leaves room for interpretation as to how these works would be evaluated for satisfying the originality requirement under the current law. As an aid to interpret the originality requirement for CG LDMA works, some leading copyright jurists have put forward the following plausible and justifiable propositions—

- (a) it is relevant to consider the relevant skill, labour and judgment of the person by whom the arrangements necessary for the creation of the work were undertaken in determining the originality requirement for CG LDMA works;⁴⁰ or
- (b) it is relevant to consider whether the generation of the CG LDMA work in question involves the exercise of sufficient skill, labour and judgment to meet the originality threshold as if the work had been made by a human author, in determining the originality requirement for CG LDMA works.⁴¹

2.22 Ultimately, the resolution of the issue on originality requirement is expected to be shaped by case law development, in much the same way as how legal principles were formerly developed for the test of originality in respect of ordinary LDMA works. This approach allows for a flexible and dynamic interpretation that is adaptable to advancements in technology and changing creative processes.

³⁸ Similar to most of the major jurisdictions, the CO does not define the originality requirement which is instead subject to interpretation through case jurisprudence under the common law.

³⁹ (a) The UK government also remarked in its consultation papers in 2020 and 2021/22 (see paragraph 2.13 above) on the same uncertainty concerning the application of the traditional originality requirement to CG LDMA works and called for views on any need to change the equivalent CGWs provisions. After the consultations, the UK government decided to maintain the equivalent CGWs provisions without any changes to avoid unintended consequences.

(b) To the best of our knowledge, there is only one major court case in the UK concerning its CGWs provisions in the UK Copyright, Designs and Patents Act 1988 (*Nova Productions Ltd v Mazooma Games Ltd* [2006] R.P.C. 14) which however did not relate to generative AI and also did not specifically address the originality requirement in relation to CG LDMA works.

⁴⁰ Copinger and Skone James on Copyright, 18th Edition (2021).

⁴¹ Laddie, Prescott and Vitoria: The Modern Law of Copyright, 5th Edition (2018).

(B) Authorship and Ownership of CG LDMA Works

2.23 Under the CGWs provisions in the CO, the author of a CG LDMA work is taken to be the person by whom the arrangements necessary for the creation of the work are undertaken (“**necessary arranger**”).⁴²

2.24 In relation to an AI-generated LDMA work, a question may arise as to which party (notably the developer/programmer/trainer of the AI model, the operator of the AI system, or the user who inputs prompts to the AI system to create the subject CG LDMA work) would be qualified as the necessary arranger under the CGWs provisions, and thus the author as well as the first copyright owner⁴³ of the work. That said, this issue is ultimately fact-specific to be determined on a case-by-case basis.⁴⁴

2.25 The reference to the necessary arranger is not unique for the CGWs provisions in the CO. As similar expression is also adopted in the definition of “producer” in the CO regarding the authorship of sound recording or film, i.e. the person by whom the arrangements necessary for the making of the sound recording or film, one may make reference to and draw analogy from the relevant case law that interprets the role of “producer” in considering the identity of the necessary arranger for the CGWs provisions.⁴⁵

2.26 As the identity of the necessary arranger for a CG LDMA work is fact-sensitive and varies from case to case, there is no hard and fast rule to specify the identity of the necessary arranger that is readily applicable to all cases, and such identity should properly be considered and determined by reference to the individual circumstances underlying each specific case.

⁴² Section 11(3) of the CO.

⁴³ See footnote 12 above.

⁴⁴ In the only UK court case that ruled on the equivalent CGWs provisions (*Nova Productions Ltd v Mazooma Games Ltd*) as mentioned in footnote 39(b) above, where artistic frames generated by arcade video games were concerned, the computer programmer of the games was held to be the author of the frames under the equivalent CGWs provisions. On the other hand, the player was not considered as the author for the reason that he had not undertaken any of the arrangements necessary for the creation of the frames but had merely played the game.

⁴⁵ Case law for the interpretation of “producer” is more developed as compared with the CGWs provisions. In the normal commercial context of producing a sound recording or film, the producer is usually held to be the person directly responsible for the arrangements, particularly in the financial sense but without going too far back up the financial chain, away from the actual arrangements for the making of the sound recording or film.

2.27 In practice, contractual arrangements may readily offer a pragmatic market solution as to which contracting party ends up holding the copyright ownership of the AI-generated works.

- (a) The development and operation of an AI system typically involve multiple parties, including the investors, developers, programmers, trainers, operators and owners. Various contracts, such as investment, employment, and commissioning contracts, may be in place to set out the rights and obligations among these parties, including the ownership of any copyright that may subsist in works resulted from the operation of the AI system. To the extent that any first copyright ownership is vested in any certain party by operation of the CO⁴⁶, such copyright ownership may be assigned to another party through such contractual arrangements.
- (b) As regards the interface between an AI system owner and a user, contractual arrangements may be put in place to set out the rights and obligations of the two sides, including the copyright ownership of the AI-generated works. This is especially relevant for business-to-business interface in which the commercial use of a generative AI system can be governed by sophisticated contractual terms through negotiation.
- (c) Other notable examples include the generative AI systems available on the web. Consumer-users are generally bound by the contractual terms established by an AI system owner, including through the acceptance of terms of use or service agreement for the generative AI system. These terms may vary significantly amongst different AI systems—
 - (i) Some AI system owners choose to claim the copyright ownership of AI-generated works while granting a non-exclusive licence to users for use of the AI-generated works such as the licence to copy, transmit, communicate to the public and/or otherwise exploit the AI-generated works. The said licence to use may be further subject to the use policy (e.g. for non-commercial use, prohibition of disinformation, etc.).

⁴⁶ Including the first copyright ownership in CG LDMA works vested in the necessary arranger under the CGWs provisions of the CO.

- (ii) In some other cases, users or paid subscribers are given the copyright ownership of AI-generated works (i.e. they enjoy exclusive rights to exploit the AI-generated works) while AI system owners retain a non-exclusive licence to use these works (such as for the development and improvement of their systems).

Issues for Consultation

2.28 We fully recognise the importance of maintaining copyright protection for AI-generated works which plays a pivotal role in instilling confidence in the legitimate production and exploitation of works created by AI systems and provides legal certainty for commercialisation of these works. This, in turn, incentivises investment in AI technology to advance creative capabilities and fosters a virtuous circle of sustainable creation of works using AI and technological development of AI. Such an approach aligns with the core value of our copyright system and the Government’s initiative to create an AI ecosystem for driving digital economy and promoting economic growth.

2.29 The combined effect of the above will further solidify Hong Kong’s positions as a regional IP trading centre, an international I&T centre and an East-meets-West centre for international cultural exchange as outlined in the National 14th Five-Year Plan.

2.30 In this regard, the existing provisions of the CO have already provided the backbone for copyright protection of AI-generated works, covering both AI-generated LDMA works and AI-generated non-LDMA works. In particular, the CGWs provisions in the CO provide long-standing copyright protection for CG LDMA works.

2.31 The general expression “computer-generated” adopted in the CGWs provisions which have been in place since 1997 is sufficiently flexible to accommodate evolving technologies. Such expression is broad enough to cover works generated by computer where there is no human author but a necessary arranger can be identified. Flexibility can be retained by not rigidly defining the identity of the necessary arranger across the board. Instead, such identity is decided on a case-by-case basis, taking into account the operation of different AI systems, the nature of the works they generate, the necessary arrangements having been undertaken and the person(s) having taken up the role of such arrangements, etc.

2.32 By attributing copyright authorship to the necessary arranger, the CGWs provisions intend to reward and provide economic incentives to persons who have put

in efforts in the arrangements necessary for creating CG LDMA works. This aligns with the overarching goals of our copyright regime for encouraging creation and investment in creativity. The protection afforded to CG LDMA works is also reasonable and proportionate as it is more limited than the protection for ordinary LDMA works created by human authors. We therefore consider that the CGWs provisions as they now stand should be maintained.

2.33 Besides the legal protection for AI-generated works by virtue of the existing CO, the market has also offered practical solutions to address the issue of copyright ownership through contractual arrangements. By entering into and agreeing to be bound by the relevant contracts, various contractual parties, notably between developers and operators of the AI systems, between AI system owners and the business users, as well as between AI system owners and online consumer-users, could settle the issue on copyright ownership of AI-generated works. There is so far no discernable market failure in such contractual arrangements, which are built on the foundation of a free and open market.

2.34 Given the absence of empirical evidence to the contrary of the above, the existing coverage of the CGWs provisions, the fast-changing landscape of AI development, and the effective solutions available in the market, we do not consider it justifiable to propose any substantive legislative amendments concerning AI-generated works at this stage. In coming to this view, we are particularly mindful of the following considerations which underscore the need for prudence in relation to any proposed legislative proposals—

- (a) The major issues as highlighted in paragraphs 2.19 to 2.27 above are ultimately fact-and-evidence sensitive, requiring determinations to be made on a case-by-case basis.⁴⁷
- (b) Equally important, discussions regarding AI-generated works continue to evolve internationally, with variations observed in major jurisdictions, regardless of whether they have adopted the CGWs provisions. A leading, settled and unified legislative approach and norm has yet to emerge.

⁴⁷ After conducting the necessary factual inquiry, the outcome of each case may vary depending on several factors. These include the nature of works involved, the specific AI systems used, the roles taken up by different parties, and the extent of their involvement in the creation of AI-generated works. Consequently, the arrangements undertaken for the creation of these works also differ, leading to different legal outcomes.

- (c) Considering the swift technological advancements that can impact on or even reconfigure the AI technology and landscape as well as the way in which copyright works are generated by AI, any statutory intervention without a sound and solid basis may result in unintended adverse consequences, such as hindering or even prejudicing the market development of AI technology.
- (d) As such, any legislative proposals must proceed with caution and comprehensive consideration, taking into account in particular the importance of flexibility and adaptability of such legislative proposal to cater for the evolving technology.

2.35 The copyright issues associated with AI-generated works are recognised to be complex and evolving on a global scale. While staying vigilant to the development in major jurisdictions and in the international community, especially in the aspect of norm setting as championed by the World Intellectual Property Organization (“**WIPO**”), we welcome views to facilitate our policy consideration in maintaining and shaping a modern and fit-for-purpose copyright regime for Hong Kong.

2.36 In light of the above, we would like to invite views and supporting evidence on the following issues—

- Do you agree that the existing CO offers adequate protection to AI-generated works, thereby encouraging creativity and its investment, as well as the usage, development, and investment in AI technology? If you consider it necessary to introduce any statutory enhancement or clarification, please provide details with justifications.
- Have you relied on the CGWs provisions of the CO in the course of claiming copyright protection for AI-generated works? If so, in what circumstances, how and to what extent has human authorship featured in these works? Have you experienced any challenges or disputes during the process?
- Do you agree that the contractual arrangements in the market provide a practical solution for addressing copyright issues concerning AI-generated works? Please elaborate on your views with supporting facts and justifications.

Chapter 3 Copyright Infringement Liability for AI-generated Works

3.1 Apart from copyright protection of AI-generated works, the potential copyright infringement liability arising from the creation and use of these works have also prompted discussions. This chapter focuses on examining the potential copyright infringement liability for AI-generated works.

Copyright Infringement for AI-generated Works

(A) Existing Legal Position

3.2 The existing CO gives exclusive rights to a copyright owner to do certain “acts restricted by copyright” in a copyright work, including but not limited to copying the work, communicating the work to the public (including making the work available to the public through the Internet), and making an adaptation of the work.⁴⁸

3.3 Copyright in a work is infringed by a person who, without the licence of the copyright owner, does or authorises another to do any of the acts restricted by copyright in relation to the whole or a substantial part⁴⁹ of the work,⁵⁰ unless the act in question is permitted under any statutory copyright exception(s).⁵¹ Copyright infringement gives rise to civil liability⁵² and may even attract criminal sanctions in certain cases⁵³.

⁴⁸ Section 22(1) and sections 23 to 29 of the CO.

⁴⁹ A substantial part of a copyright work hinges on the “quantity” and “quality” of the materials being copied. Even though only a very small part of a copyright work is copied, if that part is a key element of the work, the copying may constitute copyright infringement. Whether there is copying of a substantial part of a copyright work depends on the particular facts of the individual case.

⁵⁰ Section 22(2) and (3) of the CO. In addition to defining acts constituting primary infringements of copyright under sections 23 to 29 of the CO, the CO also provides for a class of secondary infringements of copyright which broadly covers dealings with infringing copies of a copyright work; providing means for making infringing copies of a copyright work; and permitting use of premises or providing apparatus for infringing performances to take place (see sections 30 to 34 of the CO). Establishing secondary infringement requires knowledge of the infringement in question.

⁵¹ Sections 37 to 88 of the CO.

⁵² An infringement of copyright is actionable by the copyright owner to seek civil remedies from the courts such as the relief of damages, injunctions, accounts of profits or otherwise (see section 107 of the CO).

⁵³ Copyright infringements in certain circumstances as specified in the CO may further attract criminal liabilities. For example, if they involve dealing in infringing copies of a copyright work; unauthorised communication of a copyright work to the public for or in the course of any trade or business consisting of communicating works to the public for profit or reward; prejudicial distribution

It is a question of fact to be ascertained in each case as to whether there has been an infringement of copyright and, if so, who is liable for the infringement.

(B) Possible Copyright Infringement

3.4 The basic legal principles as set out in paragraph 3.3 above are generally applicable to determine whether there is a case of copyright infringement arising from the creation and use of AI-generated works.

3.5 Specifically, where the creation or use of an AI-generated work involves doing any act restricted by copyright in relation to the whole or a substantial part of a copyright work (such as copying or making an adaptation of a work using AI technology, or communicating a work to the public through any mode of electronic transmission), the person who does or authorises another to do such act infringes copyright in the work, unless he has obtained a licence from the copyright owner or the act in question falls within any copyright exception under the CO.

3.6 In cases where the creation or use of an AI-generated work constitutes copyright infringement, which person(s) should be held liable for the infringement is to be determined on a case-by-case basis, having regard to, amongst others, the degree of individual role and involvement of each relevant party in the infringement, notably the person(s) who is/are the most proximate cause of the act being done.⁵⁴ Such parties may include the AI model's developer/programmer, the operator of the system incorporating the AI model and the end-user of the AI system. This is no different from the long-standing fact finding approach we have adopted for determining copyright infringement involving non-AI-generated works.

Illustrations

- (a) If an AI-generated work created by an AI system constitutes copyright infringement, such as involving unauthorised copying of the whole or a substantial part of a copyright work but such copying was by no means suggested by end-users when they gave the relevant prompts to the AI system

of infringing copies of a copyright work; or prejudicial communication of a copyright work to the public, etc. A person found guilty of the criminal offences for copyright infringements is liable to imprisonment and/or fine. Please see sections 118 to 120A of the CO for further details.

⁵⁴ Depending on the circumstance, a case of copyright infringement may be founded on the basis of joint liability or authorisation of infringement.

for creation of the AI-generated work, and if the AI developer/programmer/operator has control over the AI system and the capability to prevent such infringement (for instance, by implementing feasible system measures or safeguards), there is a case to argue that such AI developer/programmer/operator should primarily be held liable for the copyright infringement. Furthermore, an end-user of an AI system, who subsequently copies an infringing AI-generated work or communicates it to the public, may also be so liable.

- (b) In addition to the aforesaid potential liability of the AI developer/programmer/operator, if the prompts given by an end-user to an AI system specifically instruct, suggest, hint or allude to the AI system to make an infringing copy of a copyright work, such could support a copyright infringement claim against the end-user.
- (c) Criminal liability may be incurred if a person sells or distributes an AI-generated work for trade or business purposes, with knowledge that the work is an infringing copy of a copyright work.⁵⁵

Infringement of Moral Rights in AI-generated Works

(A) Existing Legal Position

3.7 Independent of copyright, the CO provides protection of moral rights specific to the authors of ordinary LDMA works and to the directors of films to preserve their relationship with the creation of their own works, including the right to be identified as authors or directors⁵⁶; and the right to object to derogatory treatment of their works⁵⁷. Moral rights also cover the right of a person against being falsely attributed as author of a LDMA work or as director of a film.⁵⁸ Infringement of moral rights only incurs civil liability.

⁵⁵ See footnote 53 above for details of criminal liabilities.

⁵⁶ Section 89(1) of the CO.

⁵⁷ Section 92(1) of the CO.

⁵⁸ Section 96(1) of the CO.

(B) Possible Infringement of Moral Rights

3.8 The existing statutory provisions on the protection of moral rights are also applicable to AI-generated works involving LDMA works and films. As an illustration, unless a statutory exception applies,⁵⁹ where an AI-generated work contains other's ordinary LDMA work or film (referred to as "underlying ordinary LDMA work or film" in this paragraph), there may be infringement of moral rights in relation to the underlying ordinary LDMA work or film in any of the following non-exhaustive circumstances—

- (a) there is no attribution to the author or to the director of the underlying ordinary LDMA work or film, when a person communicates the AI-generated work to the public;⁶⁰
- (b) the communication of the AI-generated work to the public involves a derogatory treatment⁶¹ of the underlying ordinary LDMA work or film;⁶² or
- (c) a person is falsely named as the author or as the director of the underlying ordinary LDMA work or film, when copies of the AI-generated work are issued to the public.⁶³

3.9 Same as copyright infringement, whether there is an infringement of moral rights remains a question of fact and evidence for determination on a case-by-case basis.

Deepfakes

3.10 Since a person's indicia of identity on their own are not protected by copyright, AI-generated works involving the unauthorised use or imitation of a person's indicia of identity such as likeness and voice do not necessarily constitute copyright infringement. However, it may attract other legal liabilities. This issue will be further discussed in

⁵⁹ Sections 91 and 93 of the CO.

⁶⁰ Please see other infringing acts of the moral right in section 89 of the CO.

⁶¹ The treatment (e.g. addition, deletion, alteration or adaption) of a work is derogatory if it amounts to distortion or mutilation of the work or is otherwise prejudicial to the honour or reputation of the author or director (see section 92(2)(b) of the CO).

⁶² Please see other infringing acts of the moral right in section 92 of the CO.

⁶³ Please see other infringing acts of the moral right in section 96 of the CO.

chapter 5.

Situations in Other Jurisdictions

3.11 So far, we are not aware of any legislative reforms in major jurisdictions that specifically address copyright infringement issues in relation to AI-generated works. In particular, despite the comprehensive provisions in the AI-specific rules implemented in Mainland China⁶⁴ and the AI-specific regulation passed in the EU⁶⁵, no major amendments have been introduced into their current copyright laws.

3.12 In the UK, its 2020 consultation paper on AI mentioned the issue of copyright infringement for AI-generated works without expressly raising any major uncertainty. More specifically, the paper stated that if an AI generates a work that infringes copyright, the person liable would be whoever made the necessary arrangements that have led the AI to infringe, who is likely to be the AI operator. The second round of consultation conducted by the UK in 2021/22 on copyright and AI no longer mentioned the liability issue of AI-generated works. In New Zealand, its consultation on copyright review conducted in 2018 which covered AI issues did not specifically raise any issue of copyright infringement liability for AI-generated works.

3.13 On the other hand, both rounds of consultation conducted by Canada on AI and copyright in 2021 and 2023 covered the issue of infringement regarding AI-generated works. Its consultation papers asked for, amongst others, evidence and recommendations for addressing any concern about the existing legal tests for demonstrating copyright infringement in an AI-generated work and the measures taken by businesses to mitigate the risks of liability for infringement when commercialising AI. Subsequent to the consultation exercise in 2023, Canada has yet to issue its policy response. In the US, its 2023 consultation paper raised a series of questions for discussion on copyright infringement of AI-generated works, including but not limited to who should be liable for the infringement and the adequacy of its existing law such as its substantial similarity test. A report addressing this issue is expected to be published later this year.

3.14 In light of the above, copyright infringement liability for AI-generated works apparently remains to be governed by the prevailing applicable laws in each jurisdiction.

⁶⁴ See footnote 35 in chapter 2.

⁶⁵ See footnote 36 in chapter 2.

Market Practice

3.15 In the realm of market practices regarding the contractual arrangements between AI system owners and end-users, it is typical for the terms of use or service to include clauses which specifically address liability issues arising from AI-generated works. The coverage of the liability clauses may vary amongst different AI systems—

- (a) In relation to end-users' claims against AI system owners arising from the provision of AI products or services and/or their use of AI-generated works, some AI system owners seek to exclude their liability to users, while some limit their overall liability to users by capping it in money terms.
- (b) Further to (a) above, in case there is any third-party claim against the AI system owners arising out of or in connection with the use of AI-generated works by end-users, the end-users are required to indemnify AI system owners against any costs, losses, liabilities and expenses.
- (c) Conversely, some AI system owners elect to offer qualified indemnity coverage to end-users, particularly to upscale paid subscribers or enterprises. This coverage is specifically for the end-users to defend any copyright infringement claim, pay damages pursuant to a court judgment and/or enter into a settlement for such claim, which serves as a business strategy to enhance consumer confidence in the AI products or services.

Issues for Consultation

3.16 The infringement liability of human-generated works has all along been determined by virtue of the underlying facts of each case and the applicable laws. The same approach continues to apply to copyright infringements involving AI-generated works, where the liability issue is subject to the necessary inquiry of facts and supporting evidence in each and every case. In other words, the person(s) held liable for infringements arising from AI-generated works varies/vary depending on the circumstances.⁶⁶ Laying down rigid rules that assign infringement liability to specific person(s), such as owners and/or end-users of AI systems, across the board would fail to account for the unique factual context of each infringement, thereby compromising

⁶⁶ The outcome of each case may vary amongst different nature of works concerned; different AI systems used; different acts restricted by copyright and moral rights; and different roles of the underlying parties in commission of or in contribution to the infringement.

fairness across a diverse range of situations. In particular, any arbitrary imposition of excessive onus on AI system owners or users, without due regard to the circumstances of individual cases, will likely hinder AI technology development and undermine efforts to encourage its use, which goes against the policy objective to promote and protect the development of AI.

3.17 As illustrated in paragraphs 3.2 to 3.9 above, the relevant provisions in the existing CO are broad and general enough to tackle infringement cases involving AI-generated works. With the ongoing technological advancement, new forms and means to commit infringements may continue to emerge. In this regard, we consider it prudent to maintain the infringement provisions of the CO as general, broad and technology-neutral. This approach seeks to ensure that they remain adaptable to changing circumstances, instead of introducing extra elements into existing statutory provisions that may affect and confine the applicability of these provisions and give rise to uncertainty.

3.18 Additionally, the prevailing market practice of the AI industry in employing contractual arrangements for inclusion of terms of use or service between AI system owners and end-users appears to be a practical and feasible approach to address infringement liability issues associated with AI-generated works. These contractual terms facilitate a mutual understanding between AI system owners and end-users regarding their respective obligations and potential liabilities. This approach helps promote responsible and legitimate use of AI-generated works.

3.19 Having considered the fact-sensitive nature of infringement issues, the existing coverage of the infringement provisions in the CO, and the market practices, we are of the view that there are no cogent justifications for introducing legislative amendments to the existing provisions applicable to copyright infringement arising from AI-generated works.

3.20 To facilitate our further consideration of our policy position, we would like to invite views and supporting evidence on the following issues—

- Do you agree that the existing law is broad and general enough for addressing the liability issues on copyright infringement arising from AI-generated works based on the individual circumstances? If you consider it necessary to introduce any statutory enhancement or clarification, please provide details with justifications.

- Have you experienced any difficulties or obstacles in pursuing or defending legal claims on copyright infringements arising from AI-generated works? If so, what are such difficulties or obstacles?
- Do you agree that the availability of contractual terms between AI system owners and end-users for governing AI-generated works also offers a concrete and practical basis for resolving disputes over copyright infringements in relation to these works? If not, could you share your own experience?

Chapter 4 Possible Introduction of Specific Copyright Exception

4.1 The advancement in technologies and computational capabilities has given rise to innovative tools and methods for data analysis and processing by computers. This has significantly enabled and facilitated academics, researchers and innovators to discover, interpret and process data and/or information which used to be not readily accessible if not unavailable, enhancing innovated and diversified data applications across various fields.

4.2 In this day and age, data analysis and processing by computers, in broad terms, may refer to—

- (a) conventional text and data mining, which employs automated techniques to extract and conduct computational analysis of extensive collections of text, images, data and/or other types of information for generating valuable insights, patterns, trends and correlations that would likely be unattainable through manual efforts alone; and
- (b) computational analysis and processing of a large collection of text, images, data and/or other types of information for enhancing the performance of a computer program, including development, training and enhancement of AI models, particularly generative AI models.

4.3 With their automated capabilities, computers can mine, analyse, process and utilise a vast volume of contents, far surpassing that made by manual efforts and human analysis. Such computational data analysis and processing power can be applied in a wide range of disciplines and industries, rendering it increasingly crucial in fueling creativity as well as expediting the development of I&T in the digital age. As digital contents continue to grow exponentially, the importance and value of these computational technologies have become more pronounced, enabling more efficient processing of digital information for deeper insights in various sectors.

Existing Legal Position

4.4 Most of the time, the data and information collected, used and stored during computational data analysis and processing may conceivably be embedded in or cover copyright works, thereby giving rise to copyright issue. Take an AI model as an example, when developing, training or enhancing the AI model, if the process involves

using others' copyright works and constitutes an act restricted by copyright (e.g. copying for extraction, collection, re-utilisation, digitalisation, formatting, storage, etc.) in relation to the whole or a substantial part of such work, this would constitute copyright infringement unless a licence is obtained from the relevant copyright owner⁶⁷ or the act in question falls within any of the copyright exceptions under the CO⁶⁸.

4.5 To maintain a proper balance of interests between copyright owners and users, the CO contains a number of copyright exceptions that permit reasonable use of copyright works under specific circumstances. Each exception is confined to certain special situations/purposes (such as use of copyright works for the purposes of research, private study, education, etc.) and subject to their respective conditions.⁶⁹ However, there is currently no specific copyright exception under the CO for the purposes of computational data analysis and processing. There is uncertainty as to how well the existing exceptions in the CO would suit the relevant computational data analysis and processing activities in the present marketplace, especially in the context of AI applications.⁷⁰

4.6 The increasing prevalence of computational data analysis and processing in AI technology development necessitates a timely review of our copyright law so that it may adapt to the rising technological trend while balancing the legitimate interests between copyright owners and users. Indeed, a number of overseas jurisdictions have

⁶⁷ Section 22(2) of the CO.

⁶⁸ Sections 37 to 88 of the CO.

⁶⁹ As an illustration, the exception under section 38 of the CO is limited to the purpose of research or private study, and covers only the use of a copyright work qualifying as a fair dealing as determined by the court after taking into account all the circumstances of the case and, in particular—

- (a) the purpose and nature of the dealing, including whether the dealing is for a non-profit-making purpose and whether the dealing is of a commercial nature;
- (b) the nature of the work;
- (c) the amount and substantiality of the portion dealt with in relation to the work as a whole; and
- (d) the effect of the dealing on the potential market for or value of the work.

⁷⁰ For example, the computational data analysis and processing activities conducted for training AI models in the modern market may be of a commercial nature, and may copy and store the whole of a copyright work. In determining whether the activities are fair dealing, these factors, while being inconclusive and dependent on all the circumstances of the case in the end, may weigh against fair dealing and thus create uncertainty as to whether the fair dealing exception(s) in the existing CO can be safely relied upon (see footnote 69 above for the non-exhaustive factors taken into account by the court when deciding on fair dealing).

In fact, some jurisdictions notably the EU, Singapore and the UK, while having similar copyright exceptions like the ones in the CO (such as those for specific purposes in relation to research, study, education, etc.), have distinctly provided for an additional exception(s) for purposes akin to computational data analysis and processing (see paragraph 4.9).

updated their copyright laws to provide for a specific copyright exception, using a general label of text and data mining exception (“**TDM exception**”) (see discussion below), to cater for activities similar to those in paragraph 4.2 above.

4.7 This chapter accordingly examines whether it is justifiable to introduce into the CO a new and specific TDM exception for the purposes of computational analysis and processing of text, images, data and/or other types of information, which shall cover (a) conventional text and data mining; and (b) computational data analysis and processing for enhancing the performance of a computer program such as the development, training and enhancement of AI models. For ease of reference, this proposed exception is generally referred to as “**Proposed TDM Exception**” whereas the permitted activities it covers are collectively termed as “**TDM activities**”.

Situations in Other Jurisdictions

4.8 A number of jurisdictions, including the EU⁷¹, Japan, Singapore and the UK, have introduced into their own copyright laws specific copyright exceptions for similar TDM activities with varying scope and conditions. On the other hand, the US has an open-ended fair use exception⁷² which may cover a certain range of TDM activities depending on the circumstances.

4.9 Of particular note is the varying scope and conditions of the above-mentioned TDM exceptions in the EU, Japan, Singapore and the UK, see the **Appendix** for a side-by-side comparison. Each jurisdiction crafts the scope of exception in different statutory language to cover all or part of the TDM activities with different conditions. For instance, Japan and Singapore provide a broad TDM exception for both commercial

⁷¹ By requiring providers of general-purpose AI models to put in place a policy to comply with the EU copyright law and in particular to identify and comply with the reservation of rights expressed pursuant to the EU Directive 2019/790 (see footnote 74 below), the EU AI Act (see footnote 36 in chapter 2) affirms the application of the existing EU copyright law, including the TDM exceptions (scope of which can be found in the **Appendix**) in the EU Directive 2019/790, to the AI context.

⁷² According to the provision of the fair use exception in the US Copyright Act, in determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include—

- (a) the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;
- (b) the nature of the copyrighted work;
- (c) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (d) the effect of the use upon the potential market for or value of the copyrighted work.

and non-commercial uses. While the EU⁷³ also provides a TDM exception for both commercial and non-commercial uses, the exception has an “opt out” option available to copyright owners⁷⁴. On the other hand, the UK confines its TDM exception to non-commercial research only.

4.10 Over the past decade or so, the issue of introduction of a specific copyright exception for similar TDM activities has been discussed in several jurisdictions with the majority of the discussions relating to AI. The latest state of play is as follows—

- (a) A bill to amend the Copyright Act in South Korea was submitted to its National Assembly in 2021 in a bid to introduce, among other things, a similar TDM exception in its copyright law given the development of AI. The proposed exception can cover both commercial and non-commercial uses. However, the amendment bill expired on 29 May 2024 when the term of the 21st National Assembly ended.
- (b) Following its public consultations on AI and copyright in 2020 and 2021/22, the UK once put forward a proposal to expand the scope of its existing TDM exception to commercial uses (but without an opt-out option available to copyright owners). However, the UK decided in 2023 that the proposal would not be pursued owing to copyright owners’ concerns.⁷⁵
- (c) The respective governments of Australia (in 2013 and 2018), Canada (in 2021 and 2023) and New Zealand (in 2018) conducted public consultation exercises on copyright, which included discussions about the need to introduce

⁷³ There are two relevant TDM exceptions (scope of which can be found in the **Appendix**) in the EU, which contain different conditions to serve different purposes and users. One of these exceptions does not specify the purpose for which text and data mining is allowed without right holders’ authorisation.

⁷⁴ The “opt-out” option (as it is commonly called) is provided for copyright owners where the TDM exception (scope of which can be found in the **Appendix**) will not be applicable if the owners have expressly reserved their rights, such as indicating their choice to reserve their rights through machine readable means in the case of content made publicly available online.

⁷⁵ In 2023, the UK Government convened a working group made up of users (including AI developers) and rights holders to work on a voluntary code of practice on copyright and AI. The code of practice aimed to make licences for data mining more available. However, it was announced in February 2024 that the working group would not be able to agree on an effective voluntary code. The UK Government is now considering transparency issues regarding training data inputs into AI models and attribution of AI outputs. We will further discuss the transparency issue in chapter 5.

copyright exception to deal with similar TDM activities.⁷⁶ They have yet to put up any policy or legislative proposal on introducing a specific TDM exception⁷⁷.

4.11 There has been a rise in the number of litigations in major jurisdictions concerning allegations and claims against several major AI developers on use of copyright works for training their AI tools without the licence of copyright owners. The outcomes of these copyright disputes are still pending and it remains to be seen how the courts would rule on the issue of copyright infringement. Specifically, it is uncertain how the relevant copyright exceptions would play out in activities conducted by AI developers in the development, training and enhancement of AI models.⁷⁸

Market Practice

4.12 From time to time, there are reports on negotiations underway between AI developers and copyright owners for use of copyright works to train generative AI models. New negotiations may come about in parallel with ongoing or contemplated litigations. On the other hand, there are also instances where licensing deals have been concluded for allowing generative AI models to be trained on licensed copyright works. Apart from that, the market indicates that key developers in the field of generative AI have started to offer voluntary and model-specific opt-out solutions. These solutions allow copyright owners to prevent their online copyright works from being used in the training of the respective AI models. Copyright owners can opt out by sending notifications or employing specified digital approaches.

⁷⁶ The discussions of the relevant proposed exceptions in Canada and New Zealand were in the context of, amongst others, AI development.

⁷⁷ Accordingly, under their respective copyright legislation, users of copyright works who carry out similar TDM activities may have to rely on existing copyright exceptions where applicable, for example, the fair dealing exception in relation to research or study and possibly the exception for temporary reproduction of works in technological process.

⁷⁸ As an illustration, the AI developers as defendants in some litigations pending in the US deny copyright infringements by invoking the fair use doctrine (see footnote 72 above). As the fair use doctrine is a dynamic concept shaped by the developing jurisprudence, it remains to be observed how the US courts will interpret and apply this key doctrine to set the parameters for permissive use of copyright works in training and developing generative AI models.

Arguments Relating to Introducing the Proposed TDM Exception

4.13 Arguments supporting the introduction of the Proposed TDM Exception include—

(a) *Promote AI development and wider economic growth*

The Proposed TDM Exception helps promote increased accessibility in copyright works for developing and training AI systems. Larger productivity gains for AI can be achieved by enriching the datasets for training AI models in terms of scale, variety and quality, as well as allowing for reasonable copying of copyright works during the computational data analysis and processing for developing, training and enhancing AI models without the need to obtain consent from different copyright owners. Introduction of the Proposed TDM Exception is conducive to attracting more I&T enterprises and talents to invest and engage in AI industries in Hong Kong. This would contribute to the promotion of I&T and R&D, and the fostering of Hong Kong as an international I&T centre which lies at the heart of sustainable economic growth of Hong Kong.

(b) *Facilitate the research community*

TDM activities are not exclusive to AI development. There are many instances where researchers and analysts such as those in the scientific fields and R&D sectors would utilise text and data mining for examining digital resources at volume so as to acquire and impart new knowledge, advance research and discover novel patterns, trends and correlations. The Proposed TDM Exception will thus aid the research community and make significant contributions to the respective fields.

(c) *Maintain competitiveness and pursue overall good*

We see the Proposed TDM Exception gaining prevalence and importance in the modern world of technology. By moving in sync with major jurisdictions which offer TDM exceptions, Hong Kong can maintain its competitive edge on the global stage and sustain its position as an ideal hub for growth and investment, benefitting society as a whole and serving the best interest of Hong Kong.

(d) *Afford legal certainty to users*

The Proposed TDM Exception with defined scope and conditions can provide legal certainty to copyright users. Users can save time and transaction costs expended on rights clearance, provided that all conditions for the exception are complied with. This is particularly facilitative for the development of AI models which may require massive copyright works owned by different copyright owners.

(e) *Reasonable balance of interests*

A robust copyright regime strikes an appropriate balance between copyright protection and reasonable use of copyright works. All copyright exceptions provided for in the CO are categorically subject to the primary consideration that the user's act does not (i) conflict with a normal exploitation of the copyright work by the copyright owner; and (ii) unreasonably prejudice the legitimate interests of the copyright owner.⁷⁹ The Proposed TDM Exception will be constructed in the same vein and will be made subject to tailored conditions underpinning copyright owners' interests in the balancing exercise.

4.14 Arguments for not introducing the Proposed TDM Exception include—

(a) *Adverse impact on copyright owners*

The more permissive the Proposed TDM Exception is, the less entitlement copyright owners have to remuneration as a return of use of their works. In particular, introduction of the Proposed TDM Exception covering commercial uses without proper safeguards may prejudice copyright owners' legitimate interests in exploiting their works.

(b) *Interruption to the market practice*

An open market approach affords flexibilities for copyright owners and users in arm's length relationship to agree on contractual terms that best fit their interests. Value-added products for TDM activities may further be provided by copyright owners through negotiation with users. The introduction of the Proposed TDM Exception may intervene, and worse still, undermine the

⁷⁹ Section 37(3) of the CO.

market practice in which licensing schemes or arrangements for TDM activities are or to be put in place, thereby affecting the freedom and development of the copyright licensing business.

(c) *Not sustainable for the changing technology*

Technology can further advance fast. The emergence of generative AI is a good example showing the exponential development and application of digital technologies. The technological capabilities to date may soon be replaced by new and advanced ones which would possibly transcend the confined scope set by the Proposed TDM Exception.

Issues for Consultation

4.15 We have carefully reviewed all considerations. Given the overall benefits brought by the Proposed TDM Exception, in particular in driving and boosting the development of AI technology and industry, and considering that most of the possible drawbacks can be balanced out by providing appropriate safeguards to copyright owners, the Government is of the view that it is justifiable to introduce the Proposed TDM Exception to the CO.

4.16 To optimise the Proposed TDM Exception and realise its benefits for a wider sector of the public, we suggest that the Proposed TDM Exception should not be restricted to non-commercial research and study. TDM activities nowadays span a diverse range of uses that include commercial endeavors, such as developing AI models for commercial uses, conducting business analytics, and R&D projects that may be privately funded. Some overseas jurisdictions have also adopted this inclusive approach to foster the growth of the AI industry and its associated benefits.

4.17 The introduction of the Proposed TDM Exception should assure copyright owners that adequate safeguards will be put in place to maintain a proper balance of interests. Having regard to the existing CO and the relevant provisions of overseas jurisdictions, a viable option for safeguards is to impose condition(s) on the Proposed TDM Exception, such as requiring lawful access to copyright works, rendering TDM activities unauthorised if licensing schemes are available or copyright owners have expressly reserved their rights (i.e. an opt-out option), and/or imposing restrictions on further communication/distribution/dealing of the copy made under the Proposed TDM

Exception.⁸⁰

4.18 In light of the above, we would like to invite views and supporting evidence on the following issues—

- What further justifications and information can be adduced to support (or roll back) the idea of introducing the Proposed TDM Exception into the CO with a view to incentivising the use and development of AI technology and pursuing overall benefits?
- How would the Proposed TDM Exception overcome the obstacles/limitations you have experienced in conducting TDM activities and facilitate the development of your business and industry?
- Is copyright licensing commonly available for TDM activities? If so, in respect of which fields/industries do these licensing schemes accommodate? Do you find the licensing solution effective?
- What conditions do you think the Proposed TDM Exception should be accompanied with, for the objective of striking a proper balance between the legitimate interests of copyright owners and copyright users, and serving the best interest of Hong Kong? Are there any practical difficulties in complying with the conditions?

⁸⁰ Other possible conditions are sufficient acknowledgement, secured storage, retention for limited purposes, destruction after certain period of time/upon request, etc.

Existing TDM exceptions in the EU, Japan, Singapore and the UK

	The EU⁸¹	Japan⁸²	Singapore⁸³	The UK⁸⁴
Scope of exception	There are two exceptions for <i>text and data mining</i> , which means any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations.	The exception is for— (i) the use in testing to develop or put into practical use technology that is connected with the recording of sounds or visuals of a work or other such exploitation; (ii) the use in <i>data analysis</i> (meaning the extraction, comparison, classification, or other statistical analysis of the constituent language, sounds, images, or other elemental data from a large number of works or a large volume of other such data); (iii) the course of <i>computer data</i>	The exception is for <i>computational data analysis</i> , which includes— (a) using a computer program to identify, extract and analyse information or data from a work or recording; and (b) using a work or recording as an example of a type of information or data to improve the functioning of a computer program in relation to that type of information or data. ⁸⁵	The exception is for <i>computational analysis</i> of anything recorded in a work.

⁸¹ See the main provisions in articles 3 and 4 of the EU Directive 2019/790 on Copyright and Related Rights in the Digital Single Market, which came into force in 2019.

⁸² See the main provision in article 30-4 of the Copyright Act (Act No.48 of 6 May 1970) of Japan, which came into force in 2019.

⁸³ See the main provisions in sections 243 and 244 of the Copyright Act 2021 of Singapore, which came into force in 2021.

⁸⁴ See the main provision in section 29A of the UK Copyright, Designs and Patents Act 1988, which came into force in 2014.

⁸⁵ Illustration: An example of computational data analysis under paragraph (b) is the use of images to train a computer program to recognise images.

	The EU ⁸¹	Japan ⁸²	Singapore ⁸³	The UK ⁸⁴
		<i>processing or otherwise exploited in a way that does not involve what is expressed in the work being perceived by the human senses</i> (for works of computer programming, such exploitation excludes the execution of the work on a computer), beyond as set forth in the preceding two items.		
Permitted use	<u>Exception (1) for specific users and specific purposes</u> Reproductions and extractions made by <i>research organisations</i> (which act either on a not-for-profit basis or in the context of a public-interest mission recognised by member states) and <i>cultural heritage institutions</i> in order to carry out text and data mining of works (excluding computer programs) and other subject matter including database (subject to <i>sui generis</i> right) for the purposes of <i>scientific research</i> are permitted.	It is permissible to exploit a work, in any way and to the extent considered necessary, in any of the cases within the scope of the exception in which it is <i>not a person's purpose to personally enjoy or cause another person to enjoy the thoughts or sentiments expressed in the work.</i>	It is permissible to make a copy of or communicate a work or a recording of a protected performance for the purposes of <i>computational data analysis or preparing the work or recording for computational data analysis.</i>	It is permissible to make a copy of a work to carry out computational analysis and for the sole purpose of <i>research for a non-commercial purpose.</i>

	The EU ⁸¹	Japan ⁸²	Singapore ⁸³	The UK ⁸⁴
	<p><u>Exception (2) for all users</u> Reproductions and extractions of works (including computer programs) and other subject matter including database (subject to <i>sui generis</i> right) for the purposes of text and data mining are permitted.</p>			
Major conditions	<p><u>For exception (1)</u></p> <ul style="list-style-type: none"> • Users should have <i>lawful access</i> to the works and other subject matter. • The copy shall be <i>stored with an appropriate level of security</i> and may be <i>retained for the purposes of scientific research</i>. • Owners shall be allowed to <i>apply measures to ensure the security and integrity of the networks and databases</i> where the works and other subject matter are hosted. • Contract override⁸⁶ is prohibited. • The exception <i>does not apply</i> in cases which <i>conflict with a normal exploitation</i> of the works or other subject matter, and <i>unreasonably prejudice the legitimate interests of</i> 	<ul style="list-style-type: none"> • The exception <i>does not apply</i> in cases which <i>unreasonably prejudice the interests of the owner</i>. 	<ul style="list-style-type: none"> • Users should have <i>lawful access</i> to the works or the recordings. • The copy should not be used for any purpose other than that mentioned in the permitted use above. • Users should <i>not supply</i> the copy of the work to any other person other than for the purposes of verifying the results of computational data analysis, or collaborative research/study relating to the purposes of computational data analysis. • Contract override is prohibited. 	<ul style="list-style-type: none"> • Users should have <i>lawful access</i> to the works. • The copy is accompanied by a <i>sufficient acknowledgement</i> (unless this would be impossible for reasons of practicality or otherwise). • The copy should not be used for any purpose other than that mentioned in the permitted use above. • The copy should <i>not be transferred</i> to any other person, except where the transfer is authorised by

⁸⁶ While statutory exceptions for certain specific uses of copyright works without the copyright owner’s consent are provided in copyright legislation, commercial contracts may, depending on the terms agreed by the parties concerned, exclude or restrict the application of these statutory exceptions. Such restrictions are often referred to as “contract override”.

	The EU ⁸¹	Japan ⁸²	Singapore ⁸³	The UK ⁸⁴
	<p><i>the owner.</i></p> <p><u>For exception (2)</u></p> <ul style="list-style-type: none"> • Users should have <i>lawful access</i> to the works and other subject matter. • Reproductions and extractions may be retained as long as is necessary for the purposes of text and data mining. • The exception only applies on condition that the use of works and other subject matter <i>has not been expressly reserved by their owners</i> in an appropriate manner, such as machine-readable means in the case of content made publicly available online. • The exception <i>does not apply</i> in cases which <i>conflict with a normal exploitation</i> of the works or other subject matter, and <i>unreasonably prejudice the legitimate interests of the owner.</i> 			<p>the owner.</p> <ul style="list-style-type: none"> • Contract override is prohibited.

Chapter 5 Other Issues Relating to Generative AI

5.1 This chapter discusses two topical issues relating to generative AI, namely deepfakes and transparency. While these issues are not exclusively or directly tied to copyright, they are critical to understanding the broader implications of generative AI.

Deepfakes

5.2 Deepfake, a portmanteau of “deep learning” and “fake”, is the utilisation of AI or deep learning algorithms to create believable or realistic videos, images and audios which never happen.⁸⁷ This includes superimposing human features on another person’s body and/or manipulating sounds to generate a realistic human experience.⁸⁸

5.3 Various fields, especially film and entertainment industries, leverage deepfake technology to enhance their capabilities and efficiency. For example, film footage are modified instead of reshooting scenes, or the native-speaking voices of “deepfake actors” and the celebrity’s face are synthesised to produce promotional videos for multinational products. On the other hand, the widespread use of deepfakes, especially in instances when such technology is maliciously employed, raises different ethical and legal concerns. Some of these issues are related to IP rights whereas others concern non-IP matters such as personal data privacy and the spread of misinformation or disinformation.

(A) Existing Legal Position

5.4 In Hong Kong, unauthorised use or imitation of a person’s name, likeness, voice, style or other indicia of identity by means of deepfake technology, depending on the underlying circumstances and evidence, is actionable under different areas of law.

5.5 When the deepfake content involves unauthorised use of a copyright work, trade mark and/or making of a misrepresentation causing damage to one’s goodwill,

⁸⁷ According to the Information Security (InfoSec) website established by the Office of the Government Chief Information Officer at <https://www.infosec.gov.hk/en/knowledge-centre/deepfake>.

⁸⁸ WIPO Magazine “*Artificial intelligence: deepfakes in the entertainment industry*” published in June 2022 at https://www.wipo.int/wipo_magazine/en/2022/02/article_0003.html.

legal actions may be brought on the basis of copyright infringement, trade mark infringement and/or common law tort of passing off, depending on the circumstances and evidence of each individual case.

Illustrations

- (a) **Copyright:** *Since a person's indicia of identity such as name, likeness, voice and style are not protected by copyright, any misuse of such indicia of identity in deepfakes does not per se constitute copyright infringement. However, if the creation or subsequent use of a deepfake content involves any act restricted by copyright (such as copying, communicating to the public or making an adaptation) in relation to the whole or a substantial part of a copyright work (e.g. a photograph or film)⁸⁹, the person who does such act without the authorisation of the relevant copyright owner may be liable to copyright infringement, unless the act in question falls within any copyright exception under the CO.⁹⁰ Improper use of deepfake technology in relation to a copyright work may also constitute infringement of moral rights.⁹¹*
- (b) **Trade mark:** *If a trader uses a person's name or image, which is a registered trade mark,⁹² to create a deepfake content for use in relation to the trader's goods or services (which are similar to those for which the mark is registered), and such use is likely to cause public confusion as to the origin of the trader's goods or services, the owner of the registered trade mark may have a case of*

⁸⁹ In general, copyright in a photograph belongs to the person who takes/creates the photograph (subject to the exceptions of employee works, commissioned works, Government copyright, etc.). Even though the copyright in a photograph in a particular case belongs to the person portrayed, copyright protection for such photograph covers the particular depiction of the portrait of the person in the photograph but does not extend to the underlying likeness of the person portrayed. Similarly, copyright in a film of a performer does not extend to the likeness of the performer or other characteristics for identifying the performer.

⁹⁰ Copyright infringement gives rise to civil liability (see footnotes 50 and 52 in chapter 3) and may even attract criminal sanctions in certain cases (see footnote 53 in chapter 3).

⁹¹ For further details on the liability on copyright infringement and infringement of moral rights, please see chapter 3.

⁹² In general, the name or image of a person is registrable as a trade mark if it satisfies all the registration requirements under the Trade Marks Ordinance (Cap. 559), in particular, the person's name or image is capable of distinguishing the goods or services of one undertaking from those of other undertakings. For details of applying for registration of a person's name or image, please see the Trade Marks Registry Work Manual at https://www.ipd.gov.hk/filemanager/ipd/common/trade-marks/registry-work-manual/current/eng/Names_signatures_and_images_of_individuals.pdf.

*trade mark infringement against the trader.*⁹³

- (c) **Passing-off:** *A passing-off claim may be brought against a trader who uses a deepfake content leveraging a well-known person’s image or likeness without consent in the course of marketing and promoting the trader’s product or service in such manner and to such extent that constitutes a misrepresentation that the trader’s product or service is endorsed or licensed by the well-known person, and such misrepresentation causes or is likely to cause damage to the person’s goodwill.*⁹⁴

5.6 Certain non-IP laws may apply against the misuse of a person’s indicia of identity in deepfakes and the dissemination and use of untrue or inappropriate information created by means of deepfakes in Hong Kong.

Non-exhaustive Examples

- (a) **Personal data protection law:** *The PDPO protects the privacy of individuals in relation to personal data*⁹⁵. *All data users*⁹⁶ *must comply with the requirements under the PDPO, including the six Data Protection Principles (“DPPs”) which cover the entire life cycle of the handling of personal data, from collection, retention, and use to destruction. For example, using personal data (including a photograph of a living individual), regardless of*

⁹³ Trade mark infringement may give rise to civil liability (see sections 18 and 22 of the Trade Marks Ordinance (Cap. 559)) and may even attract criminal sanctions in certain cases, for example, where a trader uses registered trade mark images to create deepfake contents in relation to his goods without the authorisation of the relevant trade mark owner, the contents created are considered to be so nearly resembling the registered trade mark as to be calculated to deceive, the trader may be liable under section 9 of the Trade Descriptions Ordinance (Cap. 362), unless he proves that he acted without intent to defraud.

⁹⁴ The civil action of common law passing off is established where—

- the plaintiff has goodwill in his/her name or likeness in commercial activities relating to the goods or services in question;
- the defendant made a misrepresentation that leads or is likely to lead the public to believe that the plaintiff has endorsed or licensed the defendant’s goods or services; and
- the misrepresentation damages or is likely to damage the goodwill of the plaintiff.

⁹⁵ Under the PDPO, “personal data” means any data which relates directly or indirectly to a living individual and from which it is practicable for the identity of the individual to be directly or indirectly ascertained. It must also exist in a form in which access to or processing of the data is practicable.

⁹⁶ A data user who collects and uses personal data must observe the requirements under the PDPO, including the DPPs stipulated in Schedule 1 thereto.

whether the personal data is obtained from the public domain, for the purpose of creating deepfakes would require the prescribed consent (i.e. consent that is expressly and voluntarily given and has not been withdrawn by the data subject in writing) of the data subject⁹⁷ if such use goes beyond the original purpose for which the personal data is collected or a directly related purpose, unless the exemption(s) under Part 8 of the PDPO applies/apply⁹⁸.

- (b) **Defamation:** *If the deepfake content published of and concerning a person conveys a defamatory meaning that tends to lower the reputation of that person in the opinion of right-thinking members of the community, the publisher of such deepfake content may be liable for defamation under the common law and the Defamation Ordinance (Cap. 21).⁹⁹*
- (c) **Publication of intimate images:** *The offences of publication or threatened publication of intimate images without consent have been introduced into the Crimes Ordinance (Cap. 200) in 2021. The said offences are also applicable to an image that has been altered (including by AI technology) to appear to show an intimate part or an intimate act of an individual.*
- (d) **Personating public officer:** *Using deepfake technology to falsely pretend to be a public officer may amount to an offence contrary to the Summary Offences Ordinance (Cap. 228).*
- (e) **Dishonesty offences:** *The improper use of deepfake technology for scams may constitute various offences of dishonesty under the Theft Ordinance (Cap. 210), such as fraud, blackmail and deception-related offences.*

⁹⁷ Under the PDPO, “data subject” is the individual who is the subject of the personal data.

⁹⁸ If the personal data in question is collected from the public domain, it is necessary to take into account the following (non-exhaustive) factors in assessing the permitted purposes of use: the original purpose for which the personal data is available in the public domain; the restriction, if any, imposed by the data user for further uses; and the reasonable expectation of the personal data privacy of data subjects. For further reference, please see the “Guidance on Use of Personal Data Obtained from the Public Domain” issued by the Office of the Privacy Commissioner for Personal Data (https://www.pcpd.org.hk/english/publications/files/GN_public_domain_e.pdf).

⁹⁹ In general, the plaintiff in a defamation case would have to establish:

- (a) the matter under dispute has a defamatory meaning;
- (b) the defamatory matter is conveyed or communicated to a third party; and
- (c) the defamatory matter refers to a particular person.

(B) Situations in Other Jurisdictions

5.7 Among the major jurisdictions, namely Australia, Mainland China, New Zealand, Singapore, the UK and the US, only Mainland China¹⁰⁰ and some states in the US¹⁰¹ recognise a freestanding right of personality or publicity. Such right is however not provided in their copyright legislation, and is not recognised as copyright nor any other form of IP rights, but as a general civil right. Depending on the applicable laws and circumstances of individual cases, unauthorised use of a person’s indicia of identity in deepfakes may violate the person’s right of personality or publicity under the respective laws of Mainland China and some states in the US.

5.8 On the other hand, other jurisdictions like Australia, New Zealand, Singapore and the UK do not have a right of personality or publicity as such. In these jurisdictions, as in Hong Kong, an aggrieved person in case of misuse of an individual’s personality (e.g. likeness) may pursue other appropriate legal actions, depending on the facts of each individual case.

5.9 Besides, certain jurisdictions such as Mainland China¹⁰², the UK¹⁰³ and certain states in the US¹⁰⁴ have introduced specific rules or enactments to regulate misapplication of deepfakes by AI. These regulatory measures are not primarily driven by copyright or other IP protection concerns. Instead, they aim to strengthen

¹⁰⁰ The personality rights (including the right to likeness and the right to privacy) are provided in the statute under the Civil Code of the People’s Republic of China (中華人民共和國民法典). Article 1019 of the Civil Code provides that “no organisation or individual may infringe upon other’s rights to likeness...through...falsifying other’s image by utilising information technology. Unless otherwise provided by law, no one may make, use, or publicise the image of the right holder without the latter’s consent.”

¹⁰¹ The right of publicity has been recognised in about half of all states in the US through the common law or statute, or both (notably the state of California), and its scope varies from state to state.

¹⁰² For example, Mainland China’s “Provisions on the Administration of Deep Synthesis of Internet-Based Information Services (互聯網信息服務深度合成管理規定)” entered into force in January 2023 is to strengthen the supervision of deep synthesis technology and services.

¹⁰³ For example, the UK’s “Online Safety Act” passed in October 2023 criminalised the sharing of “deepfake” intimate images.

¹⁰⁴ For example, the State of Tennessee in the US enacted the “Ensuring Likeness, Voice and Image Security (ELVIS) Act” in March 2024 to update Tennessee’s Protection of Personal Rights law by including protections for songwriters, performers, and music industry professionals’ voice from the misuse of AI. Some other states in the US also enacted laws regulating the use of nonconsensual sexual deepfakes.

supervision of Internet-based information services, control harmful online content for the safety of Internet users, and enhance the protection of the right of publicity respectively.

Transparency of AI Systems

5.10 The issue of transparency frequently arises in discussions about the need for responsible and trustworthy AI systems. Transparency is the most critical characteristic of building trust into AI systems, and constitutes one of the core principles recognised by certain international organisations, policymakers, regulators and industry-players. This principle is essential for guiding the governance of the design, development, deployment and operation of AI systems.

5.11 In essence, the transparency principle requires the adoption of a clear, honest communication channel between an AI developer and its end-users and regulators, when needed. The level of transparency and the obligations relating thereto would be decided by any laws/regulations, voluntary guidelines, or the AI developers as seen fit.

5.12 There are several approaches to guiding the development and use of AI in line with the transparency principle. These include tailor-made rules or regulations with legal effect as well as non-statutory and voluntary frameworks or guidelines.

5.13 Prominent examples of tailor-made rules or regulations include the “Interim Measures for the Administration of Generative Artificial Intelligence Services (生成式人工智能服務管理暫行辦法)” implemented in Mainland China¹⁰⁵ and the Artificial Intelligence Act (“AI Act”) passed in the EU¹⁰⁶. These rules and regulation mainly seek to promote the development of healthy and trustworthy AI systems, safeguard national security and the public interest, protect the rights of citizens, legal persons and organisations, and support innovation rather than being driven by concerns on copyright protection.

5.14 More specifically, the relevant rules and regulation concerning the transparency obligations in Mainland China and the EU mandate, among others, the

¹⁰⁵ See footnote 35 in chapter 2.

¹⁰⁶ See footnote 36 in chapter 2.

labelling of outputs of generative AI. Additionally, the EU AI Act contains a transparency obligation that can be seen as indirectly facilitating copyright owners in exercising and enforcing their rights under the EU law, as it requires providers of general-purpose AI models to draw up and make publicly available a sufficiently detailed summary about the content used for training their AI models.

5.15 On the other hand, several jurisdictions such as Australia¹⁰⁷, Canada¹⁰⁸, Singapore¹⁰⁹ and the UK¹¹⁰ currently adopt non-statutory frameworks to govern the development and use of AI systems. These non-statutory frameworks provide practical guidance to organisations on the key issues to consider and measures to implement in promoting the responsible use of AI.

Market Practice

5.16 In addition to the governance measures mandated or recommended by policymakers, the market plays a crucial role in enhancing the transparency of AI

¹⁰⁷ Australia's Artificial Intelligence Ethics Framework (released in 2019) provides handy toolkits such as risk assessment frameworks for organisations to examine the risks of their AI systems and consider appropriate actions to mitigate the risks. Furthermore, in January 2024, the Australian Government stated in its interim response to its public consultation on safe and responsible AI that it would consider and consult on the case for and the form of new mandatory guardrails for organisations developing and deploying AI systems in high-risk settings. It would also commence work with industry on the merits of voluntary labelling and watermarking of AI-generated outputs in high-risk settings.

¹⁰⁸ Pending the Parliament's consideration of the proposed Artificial Intelligence and Data Act ("AIDA") (introduced as part of Bill C-27 by the Canadian Minister of Innovation, Science and Industry in June 2022), the Canadian Government issued a voluntary AI code of conduct to provide a bridge between now and when the AIDA would be coming into force.

¹⁰⁹ In Singapore, the Model AI Governance Framework was first published in 2019 and updated in 2020 to incorporate the experiences of organisations that have adopted AI to provide clearer and more effective guidance for organisations to implement AI responsibly. Further, the Model AI Governance Framework for Generative AI was published in May 2024 to specifically address concerns associated with generative AI.

¹¹⁰ As set out in the AI regulation white paper response (in February 2024), the UK Government affirmed its non-statutory and context-based approach to regulation of AI by developing a pro-innovation regulatory framework for the time being. The framework is for the UK's existing regulators to apply within their remits, having adhered to the cross-sectoral principles outlined therein which include safety, transparency, fairness and accountability. The UK Government has published an initial guidance for regulators to aid their interpretation of the aforesaid principles. Regarding the area of transparency, the UK Government will explore mechanisms for providing greater transparency in relation to data inputs to train AI models and the attribution of AI outputs. To this end, the UK Government is separately engaging with stakeholders including rights holders and AI companies to understand broader perspectives in relation to transparency, what is technically feasible and what is proportionate.

systems. Industry initiatives often complement regulatory efforts, providing practical solutions that further the goal of transparency in AI applications. For example, several leading AI developers have integrated digital watermarks that are invisible to the human eye into their AI-generated images. These watermarks are designed to subtly indicate the artificial origin of the content, thereby maintaining transparency without affecting the aesthetic quality of the images.

5.17 Furthermore, there has been significant development in tools specifically aimed at detecting AI-generated content. These tools analyse various aspects of the content, such as texture, consistency, and patterns, to determine whether it was produced by an AI system. This capability is important for content verification processes, especially in contexts where authenticity is critical, such as media, legal evidence, and educational resources.

5.18 By adopting these technologies, AI companies not only adhere to emerging legal and ethical standards but also build trust with users and stakeholders. The proactive measures available in the market demonstrate a commitment to responsible AI development and foster a more transparent digital environment.

Local Context of Deepfakes and Transparency in AI

5.19 In light of the above, one can see that the issues of deepfakes and transparency in AI are interconnected with a broad range of issues in multiple fields—

- (a) As illustrated in paragraphs 5.4 and 5.6 above, the issue of deepfakes traverses different legal domains. While Hong Kong does not have a freestanding right of personality or publicity, there are available legal recourses and remedies to tackle the misuse of a person's indicia of identity by means of deepfakes in appropriate cases. For instance, the existing IP laws, including copyright law, are applicable to protect an individual's IP rights when the deepfakes infringe on these rights. In cases where deepfakes do not infringe IP rights but raise other concerns, such as privacy and personal data protection issues, misinformation, or cybersecurity threats, the relevant non-IP legislation might be a better tool to deter the use of deepfakes, having regard to the gravity of such misuse. As a matter of fact, most of the laws enacted to prevent crimes in the real world are in principle applicable to the cyber world.

- (b) As illustrated in paragraphs 5.12 to 5.15 above, several jurisdictions have implemented either rules or regulations with legal effect or non-statutory frameworks or guidelines that address the transparency of AI systems. These measures include a set of parameters covering multiple domains that go beyond copyright and IP protection.

5.20 In the case of Hong Kong, the Office of the Government Chief Information Officer has formulated the Ethical Artificial Intelligence Framework to provide a set of practical guidance to help identify and manage the potential risks and ethical issues such as privacy, data security and management when government bureaux and departments adopt AI-related technologies. The above framework, covering guiding principles, best practices and assessment template, is published online so that different sectors of the industry can adopt suitable principles and measures having regard to their individual circumstances. Meanwhile, the Government has commissioned a local research centre specialised in generative AI to help examine and suggest appropriate rules and guidelines, from the user and industry perspectives, on the accuracy, transparency and information security of generative AI technology and its applications. In light of the study results of the local research centre, the Government will explore how best to promote the development and application of AI-related technology taking into account the prevailing laws as well as the actual circumstances of Hong Kong.¹¹¹

5.21 Looking forward, the Government will continue to closely monitor the development of society and the relevant policies, regulations and initiatives formulated by other jurisdictions as well as any emerging uniform international standards. Based on these observations, the Government will determine appropriate and feasible follow-up actions. This vigilance ensures that the Government's strategic responses and long-term planning for promoting AI development can best suit the local circumstances thereby fostering and sustaining a robust AI ecosystem.

¹¹¹ Furthermore, the Office of the Privacy Commissioner for Personal Data has issued the "Guidance on the Ethical Development and Use of Artificial Intelligence" and the "Artificial Intelligence: Model Personal Data Protection Framework" to promote the development of AI under the premises of complying with the PDPO and adhering to ethical principles for AI, with transparency being one of the fundamental principles. The guidelines aim to help organisations devise appropriate AI strategy and management models, conduct risk assessments and make oversight arrangements, etc. when personal data is involved in the course of developing, procuring and/or using AI (see footnote 3 in chapter 1).

Chapter 6 Invitation of Views

6.1 You are invited to provide your views and supporting evidence on the issues set out in this consultation document on or before 8 September 2024 by email, post or fax at the following addresses and fax number –

Email: AI_consultation@cedb.gov.hk

Post: Division 3
Commerce and Economic Development Bureau
23rd Floor, West Wing
Central Government Offices
2 Tim Mei Avenue
Tamar, Hong Kong

Fax: 2147 3065

6.2 An electronic copy of this consultation document is available on the websites of CEDB (www.cedb.gov.hk) and the Intellectual Property Department (“IPD”) (www.ipd.gov.hk).

6.3 Submissions received will be treated as public information, which may be reproduced and published in whole or in part and in any form for the purposes of this consultation exercise and any directly related purposes without seeking permission of or providing acknowledgement to the respondents.

6.4 It is voluntary for any respondent to supply his or her personal data upon providing comments. The names and background information of the respondents may be posted on the websites of CEDB and IPD, referred to in other documents published for the same purposes, or transferred to other relevant bodies for the same purposes. If you do not wish your name and/or your background information to be disclosed, please state so when making your submission. For access to or correction of personal data contained in your submission, please write to CEDB via the above means.