

## **How should Competition and Consumer Protection rules evolve in the age of Artificial intelligence (“AI”)?**

### Abstract:

With AI transforming industries, the government must intervene to protect rights and to protect society against market failure. This essay focuses on how competition and consumer protection rules should evolve.

The nature of AI and the AI industry calls for a shift in Singapore’s competition policy. On an overarching level, the government should use AI technologies for monitoring markets and analysis in investigations. Next, the government should consider the applicability of existing legal tests for AI. Specifically, regarding the prohibition against an abuse of a dominant position, the understanding of “dominance” must adapt to the rapid rate of AI development and the industry’s heightened focus on data over the sale of products. Finally, regarding the existing policies which apply well to AI, the government must be cognisant of changes in the application of these policies.

The nature of AI introduces novel risks, thus necessitating an evolution in Singapore’s consumer protection policy. To protect consumers against these risks while ensuring that Singapore retains its competitiveness as an AI hub, a range of regulatory tools should be used so that obligations imposed on companies do not become overly onerous. First, a labelling requirement should be statutorily imposed. Next, for soft law, Singapore has done well thus far in rolling out frameworks which flag out pertinent risks and provide recommendations to companies on how to mitigate these risks. These instruments also set the foundation for transparent and explainable AI which would simplify investigations for both consumers and regulators. However, to improve

the adoption rate of these recommendations, Singapore should establish a body similar to the United Kingdom's AI and Digital Hub to provide informal advice on regulatory questions and governance practices. Finally, since control ultimately lies with consumers, the government should educate consumers on how to prudent in their use of AI. (299 words)

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## **I. Introduction**

AI has transformed the consumer experience, business work processes, and even the economy. Amidst these changes, the recent “Frontier AI Safety Commitments”, which build on the Bletchley Declaration, reaffirm the urgent need “to guard against the full spectrum of AI risks”.<sup>1</sup> This essay discusses how Singapore competition and consumer protection policy should evolve to address new risks brought about by AI. A common misconception is that a more protective regime is more stifling on the advancement of technology. However, this essay argues that pro-competition and pro-consumer protection features support an AI ecosystem that investors find more attractive in the long run. The crucial part lies in selecting appropriate regulatory tools for implementing such features without imposing overly onerous obligations on businesses. Part II and Part III examine how the government can do this for competition and consumer protection policy respectively in the AI era.

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<sup>1</sup> UK Department for Science, Innovation & Technology, “Seoul Ministerial Statement for advancing AI safety, innovation and inclusivity: AI Seoul Summit 2024” (22 May 2024) <<https://www.gov.uk/government/publications/seoul-ministerial-statement-for-advancing-ai-safety-innovation-and-inclusivity-ai-seoul-summit-2024/seoul-ministerial-statement-for-advancing-ai-safety-innovation-and-inclusivity-ai-seoul-summit-2024>> (accessed 30 May 2024).

## II. Competition Policy

The primary statute governing competition law in Singapore is the Competition Act 2004 and the Competition & Consumer Commission of Singapore (“CCCS”) administers and enforces the Act. The Act lays out three key prohibited activities – (1) anti-competitive agreements, decisions and practices (s 34); (2) abuse of a dominant position (s 47); and (3) mergers which substantially lessen competition (s 54). Part III Division 5 of the Act grants the CCCS investigative and enforcement powers.

### A. Use of AI and its Implications

AI can be used to facilitate and create new anti-competitive practices. For instance, automated pricing AI systems can facilitate explicit collusion between companies since these systems can respond to real-time data and have reduced chances of error.<sup>2</sup> Another example is pricing algorithms engaging in autonomous tacit collusion, whereby these algorithms learn to collude without human instructions.<sup>3</sup>

Authorities ought to be cautious of abuse of dominance by AI companies since few big tech incumbents alone hold the power over critical infrastructure like data and chips.<sup>4</sup> This leaves the incumbents with the ability to shape the AI industry and related markets in a way that deters competitors and furthers their own interests.<sup>5</sup> The tech incumbents

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<sup>2</sup> UK Competition & Markets Authority, “Algorithms: How they can reduce competition and harm consumers” (2021) <[https://assets.publishing.service.gov.uk/media/60085ff4d3bf7f2aa8d9704c/Algorithms\\_++.pdf](https://assets.publishing.service.gov.uk/media/60085ff4d3bf7f2aa8d9704c/Algorithms_++.pdf)>, at p 30 (accessed 30 May 2024).

<sup>3</sup> *Ibid.*

<sup>4</sup> European Commission, “Speech: Making Artificial Intelligence Available to All – How to Avoid Big Tech’s Monopoly on AI?” (19 February 2024) <[https://europa.eu/newsroom/ecpc-failover/pdf/speech-24-931\\_en.pdf](https://europa.eu/newsroom/ecpc-failover/pdf/speech-24-931_en.pdf)> (accessed 30 May 2024).

<sup>5</sup> UK Competition & Markets Authority, “CMA AI strategic update” (29 April 2024) <<https://www.gov.uk/government/publications/cma-ai-strategic-update/cma-ai-strategic-update#fn:1>> (accessed 30 May 2024).

could engage in traditional predatory behaviour including selling AI products below cost or limiting the supply of chips to competitors.

### ***B. Evolution of Competition Policy***

To protect consumer and businesses in the face of AI, competition policy across the entire life cycle of an investigation must evolve. Starting with the overarching use of technology, the CCCS should incorporate the use of new AI technologies into their investigations. For instance, AI systems can assist in monitoring markets for potential anti-competitive behaviour and in data analysis. As a result, investigations can become more targeted and efficient.<sup>6</sup> However, the CCCS must be cognisant of the oft-cited accompanying risks of using AI technologies, including enforcement bias and privacy breaches.<sup>7</sup> For enforcement bias, the AI system may tend towards flagging out anti-competitive behaviour in certain markets due to data from these markets being more readily available. The collection, use or disclosure of personal data by the CCCS for training its AI systems is unlikely to constitute a privacy breach under the Personal Data Protection Act 2012 since this is likely a matter “in the national interest”.<sup>8</sup> Nevertheless, at the current state of these AI technologies, they should only be used as tools to facilitate the investigation, and not the sole basis for launching an investigation under s 62 of the Competition Act.

Given the dynamic nature of digital markets with the rapid AI developments and changing business strategies,<sup>9</sup> the existing test for the s 47 prohibition should be

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<sup>6</sup> Andreas von Bonin & Sharon Malhi, “The Use of Artificial Intelligence in the Future of Competition Law Enforcement” (2020) 11 *Journal of European Competition Law & Practice* 468, at p 469.

<sup>7</sup> *Id.*, at p 469–471.

<sup>8</sup> Personal Data Protection Act 2012 First Schedule Part 2 Para 2.

<sup>9</sup> Competition & Consumer Commission Singapore, “E-commerce Platforms Market Study: Findings and Recommendations” (10 September 2020) <<https://www.cccs.gov.sg/media-and->

adapted. Specifically, step one of the test looks at whether an undertaking is **dominant** in a relevant market. Traditional indicators of market powers (such as market share) are no longer as reflective of the extent of competition, and thus dominance.<sup>10</sup> Instead, indicators such as control or ownership of data,<sup>11</sup> the number and quality of users would be more relevant.<sup>12</sup>

While existing competition policy need not be amended for the remaining parts of an investigation, there are changes to its application. For instance, during an investigation, s 61A of the Competition Act still grants the CCCS its information gathering powers. However, the CCCS's focus will instead be on gathering data, code and documentation to understand and test a company's AI system.<sup>13</sup> Following the conclusion of an investigation, s 69 of the Competition Act provides for a sufficiently wide range of remedies that the CCCS can impose in its decision, including prohibitory and affirmative conduct remedies.<sup>14</sup> However, the CCCS's focus will be on the AI system – whether the order be for a company to disclose information about the AI system to consumers, or to make changes to the design of the AI system.<sup>15</sup>

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[consultation/newsroom/media-releases/cccs-market-study-on-e-commerce-platforms-recommends-update-to-competition-guidelines](#)>, at p 63–64 (accessed 30 May 2024).

<sup>10</sup> *Ibid.*

<sup>11</sup> Shuya Hayashi & Koki Arai, “How Competition Law Should React in the Age of Big Data and Artificial Intelligence” (2019) 64 *The Antitrust Bulletin* 447, at p 450.

<sup>12</sup> Competition & Consumer Commission Singapore, *supra* n 9, at p 66.

<sup>13</sup> UK Competition & Markets Authority, *supra* n 2, at p 47–48.

<sup>14</sup> Competition & Consumer Commission of Singapore, “CCCS Guidelines on the Section 47 Prohibition” (1 February 2022) <<https://www.cccs.gov.sg/-/media/custom/ccs/files/legislation/ccs-guidelines/revised-guidelines-jan-2022/3-cccs-guidelines-on-the-section-47-prohibition>>, at p 15–16 (accessed 30 May 2024).

<sup>15</sup> UK Competition & Markets Authority, *supra* n 2, at p 48.

### III. Consumer Protection Policy

The primary statute governing consumer protection law in Singapore is the Consumer Protection (Fair Trading) Act 2003 (“CPFTA”). The CPFTA protects consumers against unfair practices and confers consumers additional rights for goods that do not conform to contract. Part 3A of the Act grants the CCCS investigative powers. Consumers are also protected by sector-specific regulations (such as the Regulated Financial Products and Services Regulations 2009) and the common law.

#### A. Use of AI and its Implications

Uses	Implications
AI commercial services that employ: <ul style="list-style-type: none"><li>• Targeted advertising;</li><li>• Differential pricing; and</li><li>• Automated decision-making.</li></ul>	<ul style="list-style-type: none"><li>• Privacy risks (eg. unbounded data collection);</li><li>• Bias and discrimination (eg. discriminatory recommendation decisions);</li><li>• False and misleading information (eg. hallucinations, bad actors using AI tools, suppliers misleading consumers regarding the capabilities of an AI system<sup>16</sup>);</li><li>• Safety (eg. cyber resilience <sup>17</sup>); and</li></ul>
AI consumer products including: <ul style="list-style-type: none"><li>• Digital assistants (eg. Siri or Bixby);</li><li>• Smart devices; and</li><li>• Chatbots.</li></ul>	

<sup>16</sup> UK Competition & Markets Authority, *supra* n 5.

<sup>17</sup> Ernest Lim & Phillip Morgan, *The Cambridge Handbook of Private Law and Artificial Intelligence* (Cambridge University Press, 2024), at p 125–126.

	<ul style="list-style-type: none"><li>• Harm to consumer autonomy and human relationships.</li></ul>
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*Diagram 1*

*Diagram 1* provides an overview of the various uses of AI that consumers experience and their implications on consumer protection policy. Specifically, the risk of harm to consumer autonomy arises from an increasing reliance by consumers on AI services and products, such as personalised recommendations and smart devices. For instance, consumers may rely on personalised recommendations on e-commerce platforms with the expectation that recommendations by the AI system are made in their best interests. In reality, these AI systems may be developed to prioritise product recommendations from companies that platform has a commercial affiliation with.<sup>18</sup>

### ***B. Evolution of Consumer Protection Policy***

Consumer protection policy can evolve in the AI age using a range of regulatory tools. Starting with hard law, this essay proposes that a labelling requirement should be statutorily imposed on “any person supplying a product or service involving artificial intelligence”.<sup>19</sup> As it stands, it is difficult for consumers to discern when they are interacting with AI,<sup>20</sup> leaving them woefully exposed to the risks in *Diagram 2*. Mandatory labels would allow consumers to be more cognisant of the risks and adjust their degrees of reliance accordingly. Additionally, an AI labelling requirement is likely to promote advancements in the AI economy, rather than stifle it. While AI suppliers would have to bear additional labelling costs, mandatory labels would be instrumental

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<sup>18</sup> *Id.*, at p 130–131.

<sup>19</sup> Guidance can be sought from the labelling requirement in the UK Digital Markets, Competition and Consumers Bill, which is expected to come into force in Autumn 2024.

<sup>20</sup> UK Competition & Markets Authority, *supra* n 5.

in securing Singapore's position as a trustworthy AI hub. Since Singapore has made clear that it does not plan to enact any AI-specific hard regulation in the next 3-5 years,<sup>21</sup> any AI labelling statutory requirement would likely be incorporated as part of existing consumer protection legislation.

Existing hard law can also provide some recourse against the risks brought about by AI. For instance, regarding privacy risks, the Personal Data Protection Act 2012 applies to the collection and/or processing of personal data for the development, testing, monitoring and deployment of AI systems.<sup>22</sup> Regarding safety risks, s 14(2) of the Sale of Goods Act 1979 incorporates an implied term that "the goods supplied under the contract are of satisfactory quality". Buyers of unsafe AI systems can seek recourse against the seller for a breach of this implied term. However, not all consumers fall within the ambit of these statutes. To illustrate, the Sale of Goods Act would not apply to a consumer who was not the buyer of the AI system in question. These consumers would then turn to the common law for recourse due to the absence of a strict liability product liability regime in Singapore. Even with the uptake of AI, Singapore should not adopt a strict liability regime as businesses would be unnecessarily burdened with regulatory costs. Business competitiveness and consumer welfare would both be reduced in the long run, thus stifling the advancement of technology.<sup>23</sup>

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<sup>21</sup> Ministry of Communications and Information Singapore, "Singapore National AI Strategy 2.0" (4 December 2023) <<https://file.go.gov.sg/nais2023.pdf>>, at p 14 (accessed 30 May 2024).

<sup>22</sup> Personal Data Protection Commission Singapore, "Advisory Guidelines on Use of Personal Data in AI Recommendation and Decision Systems" (1 March 2024) <<https://www.pdpc.gov.sg/-/media/files/pdpc/pdf-files/advisory-guidelines/advisory-guidelines-on-the-use-of-personal-data-in-ai-recommendation-and-decision-systems.pdf>>, at para 2.1 (accessed 30 May 2024).

<sup>23</sup> Gary Low, *Consumer Protection in Asia* (Bloomsbury Publishing, 2022), at p 217–218.



It remains to be seen how common law principles like negligence and contractual remedies will evolve to protect consumers in the AI era. For instance, consumers claiming against an AI supplier under the tort of negligence face an uphill battle in determining the standard of care and in establishing causation.<sup>24</sup> This is due to the “black box” nature of AI, which refers to the difficulty in explaining how the algorithms behind AI models function and the models’ decision-making process. Consumers have to overcome the biggest challenge consumers of establishing that the operation of the AI system in question results in a contravention of existing common law principles.<sup>25</sup> To mitigate this challenge for consumers, Singapore’s use of soft law instruments has been effective.

In regulating AI, Singapore has relied most heavily on soft law instruments, such as the Model AI Governance Framework (“Model Framework”) and its accompanying Compendium of Use Cases. These instruments help guide organisations in the right direction by highlighting pertinent risks and providing recommendations for how to mitigate these risks. For instance, regarding explainability, the Model Framework recommends for organisations to incorporate descriptions of the AI system’s design and expected behaviour into product descriptions.<sup>26</sup> This sets a precedent for an AI ecosystem where both consumers and regulators can investigate the operations of AI products and services more easily. Furthermore, Singapore retains its competitive edge as an AI hub since these recommendations are not statutorily encoded.

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<sup>24</sup> Cheryl Seah, “Liability Arising from the Use of Artificial Intelligence” (May 2023) <<https://lawgazette.com.sg/feature/liability-arising-from-the-use-of-artificial-intelligence/>> (accessed 30 May 2024).

<sup>25</sup> Ernest Lim & Phillip Morgan, *supra* n 17, at p 117.

<sup>26</sup> Infocomm Media Development Authority Singapore, “Model Artificial Intelligence Governance Framework Second Edition” (2020) <<https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for-Organisation/AI/SGModelAIGovFramework2.pdf>>, at p 44 (accessed 30 May 2024).

However, one drawback of soft law instruments is the low adoption rate of recommendations made. While the Compendium of Use Cases demonstrates how some organisations have implemented practices in accordance with the Model Framework, the case studies mostly involve large organisations. Smaller organisations have less incentive and resources to process and implement the recommendations made and the requirements imposed by regulators. To help advance Singapore's AI economy, this essay proposes the establishment of a body similar to the United Kingdom's AI and Digital Hub. This body would support organisations working on AI products or services by providing informal advice on regulatory questions and governance practices.<sup>27</sup> This would be especially helpful for small organisations which have difficulties navigating the complex AI landscape, with regulatory questions often spanning across different areas of the law.

This section has explored a range of regulatory tools that can be used by the government to protect consumers. Above all, the government should ingrain in consumers the notion that they ought to be discerning in their use of AI.<sup>28</sup> Regardless of the safeguards adopted by regulators and organisations against the risks of AI, control ultimately falls on consumers. The government should educate consumers on when to rely on AI, and how to decide on the degree of reliance when using AI.

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<sup>27</sup> Digital Regulation Cooperation Forum, "AI and Digital Hub" <<https://www.drcf.org.uk/ai-and-digital-hub>> (accessed 30 May 2024).

<sup>28</sup> Ernest Lim & Phillip Morgan, *supra* n 17, at p 133–134.

#### **IV. Conclusion**

This essay has examined how the CCCS can adapt existing competition and consumer protection policy in light of AI. The recommendations draw on a range of regulatory tools so as to ensure that obligations are not overly onerous for companies, whilst competition and consumers remain protected. While this paper focuses specifically on competition and consumer protection law, the interdisciplinary nature of AI must not be forgotten. The CCCS must collaborate with other regulatory bodies, including the Personal Data Protection Commission, to ensure consistency between approaches.

Aside from the content of these policies, the timing at which these changes are implemented is also crucial.<sup>29</sup> The timing should be tied to the degree of digitalisation of businesses in Singapore.<sup>30</sup>

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<sup>29</sup> The Collingridge dilemma exemplifies the conundrum regarding the timing of regulation for emerging technologies.

<sup>30</sup> Kanita Imamović Čizmić, "Artificial Intelligence and Competition Law – Challenges for Bosnia and Herzegovina" (2022) 16 *European Integration Studies* 166, at p 174.

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