

## **NEW ADVISORY GUIDELINES ON THE USE OF PERSONAL DATA IN ARTIFICIAL INTELLIGENCE (AI) SYSTEMS**

1. The Singapore Personal Data Protection Commission of Singapore (“**PDPC**”) recently published a set of Advisory Guidelines on the Use of Personal Data in AI Recommendation and Decision Systems (the “**PDPC AI Guidelines**”).

2. The PDPC AI Guidelines seek to provide organisations with certainty on when they can use personal data to develop and deploy systems that embed machine learning models (“**AI Systems**”) in compliance with the Personal Data Protection Act (“**PDPA**”). This will also assure consumers that their personal data is being used appropriately. The PDPC AI Guidelines are focused on the privacy aspects of AI governance and complements the broader Model AI Governance Framework<sup>1</sup> proposed by IMDA and the AI Verify Foundation, which was covered in an earlier article ([click here](#)).

### **SUMMARY OF THE PDPC AI GUIDELINES**

3. The PDPC AI Guidelines divide the typical AI System-implementation process into three stages, namely, (I) Development, (II) Deployment and (III) Procurement, and provides valuable guidance in relation to each stage. We provide a summary of the guidance notes followed by our views on the PDPC AI Guidelines.

#### **(I) Development, Testing and Monitoring of AI Systems**

4. This section deals with the legal bases that organisations can rely on to ensure that the process of developing AI Systems is PDPA-compliant.

5. The starting point for organisations is that they have to comply with the Consent Obligation<sup>2</sup>. This means that they will need to obtain consent from the individual for the collection, use and disclosure of personal data to train and/or test the AI System. The Consent Obligation must be satisfied in tandem with the Notification Obligation, which is elaborated at Part (II) of this article.

6. Generally, the individual’s consent may only be dispensed with if there is an applicable PDPA exception. We touch briefly on two exceptions which are most likely to be relevant at the development, testing and monitoring stage.

7. The first exception to consent is the Business Improvement Exception. This could be in the context of sharing with related companies within a group of companies, where such use falls within the five business improvement purposes prescribed in the PDPA (e.g., the

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<sup>1</sup> See, especially, Section 3 of the Model Framework.

<sup>2</sup> i.e., The obligation to collect, use or disclose personal data only for purposes which an individual has given, or is deemed to have given, his/her consent to, unless otherwise authorised under the PDPA or any other written law.

purpose of improving, enhancing existing goods and services or the purpose of developing new goods or services).

8. The Business Improvement Exception may be particularly helpful for AI System testing, including the use of personal data –

- (a) to test an AI System to improve or assess model performance; and/or
- (b) for bias assessments.

9. When considering if the Business Improvement Exception applies, organisations should take into account relevant factors including: (i) whether using personal data for the intended purpose contributes towards improving the effectiveness or quality of the AI System and its output; and (ii) whether it is technically possible and/or cost-effective to use other means to develop, test or monitor the AI System without using personal data.

10. The second exception to consent is the Research Exception. This applies to the use and disclosure of personal data for a research purpose which, among other requirements, yields a *clear public benefit*. When considering if the Research Exception applies, the relevant considerations include: (i) how and to what extent the development and application of the AI System will improve understanding and development of science and engineering; and (ii) the potential of applying the AI System to increase innovation in products or services that benefit society by improving the quality of life.

11. If consent or finding an application exception proves challenging, organisations should consider developing, training and testing the AI System using anonymised data, which is generally not subject to the PDPA. To facilitate this, organisations can consider using federated learning and/or differential privacy to minimize the use of personal data in the training process.

12. Finally, organisations that engage external service providers to develop/test AI Systems should note that it would still bear the primary responsibility for ensuring compliance with the PDPA, if the personal data being used is in the control or possession of the procuring organisation.

## (II) Deployment of AI Systems

13. The PDPA considerations when organisations deploy AI Systems that collect and use personal data to provide new functionalities or enhance product features are summarized in this section.

14. Consent is needed for the deployment of AI Systems unless there is deemed consent or if there exists an exception in the PDPA, such as the Business Improvement Exception or Legitimate Interest Exception<sup>3</sup>. When seeking consent, it should be noted that *meaningful* consent must be obtained. This means that organisations should provide relevant information at the point of data collection so that any consent is given with sufficient understanding of how their personal data will be processed to achieve the intended purpose.

15. To complement the Consent Obligation, organisations are required to comply with the Notification Obligation, to specify the types of data that will be collected and processed and the purpose for the processing.

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<sup>3</sup> This exception generally applies where the collection or use of personal data is in the legitimate interest of the organisation or another person and such legitimate interest must outweigh any adverse effect on the individual. Please note that there are still preparatory steps which an organisation must take to avail itself of this exception.

16. In the context of deployment of AI Systems, organisations should strive to provide the following information when crafting their notifications:

- (a) The function of the product/service which requires collection and processing of personal data;
- (b) A general description of the types of personal data that will be collected and processed;
- (c) Explanation of how the processing of personal data collected is relevant to the product/service feature; and
- (d) Specific features of personal data that are more likely to influence the product/service feature.

17. The method of presenting notifications is just as critical. The PDPC AI Guidelines states that organisations should decide the mode of providing such information based on an assessment of how this supports their business objectives vis-à-vis user experience. Best practice would lead us to suggest that organisations use pop-up notifications coupled with model cards<sup>4</sup> or system cards<sup>5</sup>, as well as using the “layering” approach (i.e., to display the most relevant information more prominently and providing more details elsewhere).

### (III) Procurement of AI Systems

18. Third-party service providers who either develop or deploy AI Systems that collect and use personal data owned or in the possession of another organisation will assume the role of a data intermediary under the PDPA. This section deals with the obligations of such data intermediaries, viz-a-viz the data-controller organisation.

19. Data intermediaries developing AI Systems should support their organisations by:

- (a) being familiar with the technical information that the commissioning organisation is likely to require, based on that organisation’s needs and the impact the AI System would have on its end-users; and
- (b) building in processes that facilitate the extraction of information relevant to meeting the organisation’s PDPA obligations.

20. The PDPC AI Guidelines encourage data intermediaries deploying AI Systems to:

- (a) use techniques such as data mapping and labelling to keep track of data that was used to form the training dataset, particularly at the pre-processing stage; and
- (b) maintain a provenance record to document the lineage of the training data that identifies the source of training data and tracks how it has been transformed during data preparation.

21. Conversely, the organisation procuring AI-related services is well-advised to tap on the expertise of their data intermediaries to meet their own obligations under the PDPA. This includes asking the data intermediaries to provide technical clarification or consultation on the adequacy and accuracy of information in policy documents developed by organisations for their customers.

<sup>4</sup> E.g., Open AI’s Model Card for GPT-3 (<https://github.com/openai/gpt-3/blob/master/model-card.md>).

<sup>5</sup> E.g., Meta’s AI System Cards (<https://ai.meta.com/blog/how-ai-powers-experiences-facebook-instagram-system-cards/>).

## All three aspects of AI System implementation

22. Please note that there are certain PDPA obligations that traverse all three aspects of AI System implementation, such as the Purpose Limitation Obligation<sup>6</sup>, Accountability Obligation and Protection Obligation<sup>7</sup>.

23. The Protection Obligation entails adopting a privacy-by-design approach to the development (or procurement, as the case may be) and deployment of AI Systems. Salient good practices are data minimisation, conducting Data Protection Impact Assessments and implementing appropriate legal, technical and process controls.

24. The Accountability Obligation warrants attention. It requires organisations to, among others, develop and implement data protection policies and practices and thereafter, communicate such policies and practices to its staff and make information about it available to consumers.

25. In the context of AI Systems, the PDPC AI Guidelines emphasise the need for written policies which are transparent and include relevant practices and safeguards to achieve fairness and reasonableness. It is recommended that such policies include, to the extent that a reasonable person would consider appropriate in the circumstances, the following information:

- (a) measures taken to achieve fairness and reasonableness for recommendations, predictions, and decisions for the benefit of consumers during model development and testing stages;
- (b) safeguards and technical measures taken to protect personal data (e.g., pseudonymisation and data minimisation measures);
- (c) the accountability mechanisms, human agency and oversight implemented, (this is a higher priority for AI System with high-impact outcomes);
- (d) information on safety and/or robustness of the AI System; and/or
- (e) information on data quality and governance measures taken during AI System development.

26. Notwithstanding the above, the PDPC recognises that organisations may need to protect commercially sensitive and/or proprietary information, and ensure the AI Systems are not easily exploited. In this vein, the PDPC AI Guidelines state that decisions to limit/omit details disclosed and provide a more general explanation instead should be justified and documented clearly internally.

## COMMENTARY

27. Given the 'black box' nature of AI Systems, the principles of accountability and transparency are key priorities in many AI governance frameworks<sup>8</sup>.

28. The Accountability and Notification Obligations of the PDPA address this issue by providing a baseline for AI governance. However, the PDPA is not a silver bullet to all concerns surrounding AI

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<sup>6</sup> Generally, organisations should only collect, use or disclose personal data for purposes that a reasonable person would consider appropriate under the given circumstances and for which the individual has given consent.

<sup>7</sup> Generally, organisations must make reasonable security arrangements to protect the personal data in its possession to prevent unauthorised access, collection, use, disclosure or similar risks.

<sup>8</sup> E.g., IMDA & AI Verify Foundation, *Proposed Model AI Governance Framework for Generative AI* (16 January 2024); OECD, *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449 at p 8; and UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (SHS/BIO/PI/2021/1) at pp 22-23.

Systems. For instance, the PDPA does not appear to require disclosure on (a) *where* the personal data came from, (b) *what* decisions are being made based on the personal data collected and (c) *how* the AI Systems arrived at the output, which is an important issue for affected individuals.

29. In this regard, the PDPC AI Guidelines may be seen as an attempt to bridge those gaps. It encourages organisations to be more *transparent* and *accountable* regarding AI Systems, even on matters outside of what is strictly required by the letter of the law. We note that the PDPC uses its advisory guidelines when determining whether an organisation has breached the PDPA<sup>9</sup>, and the extent that the PDPC AI Guidelines are enforced remains to be seen.

30. Parenthetically, Singapore's data protection laws remain more business-friendly when compared to its European counterpart. For instance, the GDPR requires data controllers to provide specific information on the existence of automated decision-making, including profiling and meaningful information about the logic involved, as well as the significance and envisaged consequences of such processing on the data subject<sup>10</sup>.

31. Ultimately, the PDPC AI Guidelines are welcome as they strike a balance between ensuring fairness and transparency for consumers on the one hand and, allowing organisations to harness the power of AI to improve their products/processes on the other. The PDPC AI Guidelines also provide tangible guidance to organisations working on AI projects.

32. If you have any queries relating to the PDPC AI Guidelines or require any legal advice on matters relating to AI, personal data protection and/or privacy, please do not hesitate to contact our Partner, Mr Zech Chan ([zechchan@leenlee.com.sg](mailto:zechchan@leenlee.com.sg)) or members of our Intellectual Property Department.

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<sup>9</sup> See, e.g., *Eatigo International Pte. Ltd.* [2022] SGPDP 9 at [13], citing the PDPC's Advisory Guidelines on Key Concepts in the PDPA; and *Fullerton Healthcare Group Pte Limited and another* [2023] SGPDP 5, citing the PDPC's Guide to Data Protection Practices for ICT Systems.

<sup>10</sup> Articles 13(2)(f) and 14(2)(g) of the GDPR.