LIFTED Knowledge Guides

Artifical Intelligence

Legal practice in AI involves the application of a range of legal and regulatory topics, such as data protection, intellectual property, tort, consumer protection and content regulations, to the development and deployment of AI models and systems, as well as regulations that address AI specifically. To appropriately apply legal and regulatory precepts, practitioners must have an appreciation of (i) AI as a technology and (ii) industry practices and trends. Practitioners must be familiar with decisions and guidance that shape and evolve with the application of laws and regulations to AI.

The practice comprises the following areas of knowledge: (i) Industry Knowledge, (ii) AI Governance Principles and Frameworks, (iii) Technology Transactions: AI; (iv) Applied Legal and Regulatory Topics; and (v) Sector-specific Legal and Regulatory Knowledge.

Industry Knowledge

Proficiency Levels

Intermediate

Established concepts, terminology and definitions associated with AI technologies, systems, development and deployments, such as:

- Elements of an AI system: AI models, AI systems, datasets, algorithms
- AI deployment and development lifecycle: model validation, training and testing, fine-tuning and reinforcement learning from human feedback (RLHF), deployment and model inference, and monitoring and maintenance
- AI Techniques: linear regression, supervised learning, machine learning, neural networks
- AI Models & Systems: large language models (LLMs), frontier models, general-purpose AI models, generative AI, recommendation and decision making AI systems, AI high-risk AI systems. Practitioners should be able to differentiate between AI systems that operate deterministically/non-deterministically and rules-based vs probabilistic systems
- Sector Specific Applications: Use of AI in Finance, e.g. trading, identification of suspicious activities and assessment of loan applications, Healthcare, e.g. AI for diagnostic radiology and predictive care, and other sectors
- Definitions: Domestic and commonly referenced international definitions including:
  - Definitions of “AI”, “AI Solution Providers” and “Organisations” used in Singapore’s Model AI Governance Framework
  - OECD and the EU AI Act definitions of “AI System”
  - Open Source Initiative definition of “Open Source Artificial Intelligence”

Pitfalls and limitations associated with AI technologies and systems, such as:

- Explainability and the “black box” problem with AI models and systems
- Bias and discrimination in AI decision making systems
- Generative AI and its implications on trust and governance, including hallucinations, and implications on copyright and the creative industry
- Reasoning models do not “think” in the same way as humans
- Dependency of AI models on data it is trained on
- Impact of AI on online harms and safety, including deepfakes

Advanced

Broader domestic and international developments and trends in:

- AI technology and industry practices and approaches
- The broader technology stack supporting AI, e.g. data, semiconductors, data centers and cloud services
- Adjacent industries and subject matter, e.g. environment, energy and water
- Geopolitical forces

such as:

- International trade policy and restrictions on inputs for training of AI models, such as export controls on semiconductors and its impact on compute and approaches towards training AI models
- Geopolitical and industry trends in relation to matters environmental, energy and water and the availability of land and infrastructure investments in the building of data centers for running AI compute
- The accessibility of cloud services on the availability of compute to develop and use advanced AI capabilities
- The availability of data on training of AI models and the implications of cross-border data transfer restrictions or copyright law
- Frontier models and its impact on trust and safety in AI
- Competition law and enforcement and its impact on technology integration and deals relating to AI systems
- Development of standards in relation to AI systems and AI Governance

Advanced practitioners are expected to have an informed view of the **direction of travel** of AI technology and the industry

Industry Knowledge (cont'd)

Proficiency Levels

Intermediate

Anticipated industry and technology trends and developments, such as:

- Agentic AI
- Licensing of data for use in AI model training
- Open-weights AI models

AI Governance: Principles and Frameworks

Proficiency Levels

Intermediate

Principles and values that drive AI Governance, such as the Asilomar AI Principles and OECD Principles for Responsible Stewardship of Trustworthy AI

AI Governance frameworks and approaches, including:

- The AI Model Governance Framework
- The Model Governance Framework for Generative AI
- AI Verify Testing Framework

Common industry standards related to AI Governance, such as:

- AI Risk Management Framework by the National Institute of Standards and Technology (NIST)
- ISO/IEC 42001: AI Management Systems

Commonly encountered **international regulatory and governance approaches**, such as the EU AI Act

Commonly encountered **applications of AI Governance** (including widely discussed industry specific applications), such as:

- Compendium of Use Cases demonstrating application of AI governance practices
- AI Verify Toolkit
- Veritas Initiative

Advanced

Broader development and trends in AI governance, policy and regulatory approaches internationally and in other forums, such as legislative initiatives in China, Korea and California, as well as ASEAN AI Governance and Ethics Guides

Tensions and alignment surrounding AI Governance principles and approaches, such as:

- Utilising certain data points may improve accuracy but reflect historical biases embedded in training data, reflecting a tension between fairness and accuracy
- Transparency over sources of data used to train AI models and the risk of copyright infringement actions

Advanced practitioners are expected to have an informed view of the **direction of travel** of AI governance approaches and regulatory developments

Technology Transactions

Proficiency Levels

Intermediate

Contractual structures and concepts common in the development of and licensing and provision of AI systems, models and services, including and in relation to:

- Licensing of data and related services used in connection with training AI models
- Using or licensing "open-weights" AI models
- AI-as-a-Service

Advanced

In-depth knowledge and familiarity with the **specifics of and differences between commonly encountered terms,** as well as **industry norms and expectations**, such as:

- Differences in licenses for major "open-weights" AI models, the major differences between one another and differences and similarities to open-source software licenses
- Industry norms and expectations surrounding matters such as rights to fine-tune or retrain AI models, access to logs/model weights and allocation of rights and responsibilities relation to the output of generative AI systems
- Allocation of responsibility/liability amongst participants in an AI supply chain including liability positions of AI service providers

Applied Legal and Regulatory Knowledge

Proficiency Levels

Intermediate	Advanced
Data protection laws and practice applicable to the development and deployment of AI models and systems, such as: • the collection and use of personal data in the training of AI models • the use of personal data in the provision of AI-enabled services including automated decision-making **Limits and challenges to the application of data protection principles** to AI systems and technology, such as challenges to: • The full recognition to data subject rights like access, correction and deletion when applied to AI systems • The principle of accuracy given the occurrence of "hallucinations" due to the way that generative AI systems work / are trained **Decisions, guidance and material** addressing data protection matters related to AI or impacting the development/deployment of AI or the industry, such as Advisory Guidelines on Use of Personal Data in AI Recommendation and Decision Systems.	**Comparative approaches towards the interpretation and application of data protection laws** to AI in other forums and across sectors, such as: • Guidance by the EU Data Protection Board and the UK ICO • Actions and decisions by data protection authorities in connection with AI systems such as the Garante decision against OpenAI and investigations by Korea's PIPC against DeepSeek • The use of consumer protection laws by the FTC in the United States • Data localisation and other barriers to international transfers of personal data **Legal and regulatory trends and developments**, including: • Industry norms and approaches to mitigate or resolve data protection issues • Developing trend towards transparency. For example, labelling of outputs to establish provenance, informing users that they are interacting with an AI, publishing of summaries of training datasets and algorithmic filings
Intellectual property laws that apply to the development, deployment and use of AI models and systems, such as: • The use of copyrighted works in training of AI models including fair use and TDM exceptions and their limitations • Copyright protection for the output of AI generated material • Patent protection for AI-generated inventions • Intellectual property infringement in connection with the creation and use of AI generated output • Patent protection for algorithms and AI systems **Decisions, guidance and material addressing intellectual property matters** related to AI or impacting the development and/or deployment of AI or the industry, such as the report "When Code Creates: A Landscape Report on Issues at the Intersection of Artificial Intelligence and Intellectual Property Law" and guidance on AI-related patent applications issued by the Intellectual Property Office of Singapore	**Comparative approaches towards the interpretation and application of intellectual property laws** to AI in other forums and across sectors (including legal and regulatory trends and developments), such as: • Guidance and analysis on copyright protection for AI-generated works and patent protection for AI-generated inventions by foreign IP offices • Case law on intellectual property infringement in other jurisdictions with active litigation • Material from international organisations such as the WIPO • Other intellectual property rights and approaches such as the right to publicity / misappropriation of identity In-depth knowledge and strategy to harness AI while ensuring sufficient protections both FROM infringement and FOR the works created with assistance of AI models and systems
General principles for establishment of liability for harm that may be applied to AI systems, products and services, such as: • Tortious liability for harm arising out of fault in an AI system, including an appreciation of evidentiary complexities in establishing fault • Liability for improper output of an AI-system, including potential liability in negligence and misrepresentation for hallucinations or bias • Limits to the exclusion or restriction of liability via contractual means under common law and the Unfair Contract Terms Act 1977	**Comparative approaches towards product liability and its impact on the establishment of liability** for AI systems in other forums and across sectors (including legal and regulatory trends and developments), such as the EU Product Liability Directive

Applied Legal and Regulatory Knowledge (cont'd)

Proficiency Levels

Intermediate	Advanced
Consumer protection laws and regulations governing the marketing and provision of AI-facilitated services, such as unfair practices under the Consumer Protection (Fair Trading) Act 2003 in relation to the marketing of a AI-product or a claim, recommendation by an AI-system in a consumer transaction or algorithmically determined pricing	**Comparative approaches towards the interpretation and application of consumer protection laws** in relation to AI systems in other forums and across sectors (including legal and regulatory trends and developments), such as the US Federal Trade Commission's application of existing consumer protection laws to address deceptive AI-related claims and schemes
Contractual principles that apply to the formation of automated contracts and grounds for vitiating a contract, including the Electronic Transaction Act 2010 and relevant case law such as B2C2 v Quoine	**Contractual principles and their interpretation and application** in relation to AI systems in other forums, especially other common law jurisdictions
Content regulations governing the output of generative AI systems, such as: • Responsibility for the provision of harmful content online, including where such content is AI-generated, such as under the Broadcasting Act 1994 for egregious content and the Penal Code for sexually explicit content • The use of AI generated content in the facilitation of criminal or unlawful activity such as scams, fraud and harassment • Use of deepfakes in relation to elections under the Elections (Integrity of Online Advertising) (Amendment) Act and relevant guidance, materials and major decisions related to the interpretation and application of such regulations	Comparative approaches towards content regulation and in particular AI-generated content (including legal and regulatory trends and developments), such as: • Chinese Generative AI law • EU Data Services Act and EU AI Act

Sector-specific Legal and Regulatory Knowledge

Proficiency Levels

Intermediate	Advanced
Sector-specific regulations and guidance that may apply in certain AI use cases, such as: • Licensing and Regulations for Autonomous Vehicles • Guidelines for AI Medical Devices • MAS FEAT Principles and advisory guidelines for "robo-advisers"	**Comparative approaches towards addressing sector-specific considerations** in the use or application of AI in a particular industry or sector, including: • policy interests, priorities and drivers behind sector specific approaches • development and trends internationally and in other forums that have a bearing on the legal and regulatory approach towards AI systems or the use cases for AI, such as the focus on Fairness, Ethics, Accountability and Transparency in AI for the financial sector versus the safety testing and guardrails required for autonomous vehicles
Regulatory agencies and their regulatory scope, as well as publicly available consultations that have a bearing on the legal and regulatory approach towards AI systems or use cases for AI systems	A practitioner's sector-specific knowledge may be commensurate to their area of practice and exposure to that specific industry sector, and can be expected to acquire sector specific knowledge to assist clients in assessing or addressing industry or sector specific deployments, including in regulated industries An advanced practitioner is expected to be familiar with domestic regulatory and policy structures and institutions, including avenues and mechanisms for sandboxes, public consultations and channels of feedback