International Bar Association

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Guidelines and Regulations to Provide Insights on Public Policies to Ensure Artificial Intelligence's Beneficial Use as a Professional Tool

IBA Alternative and New Law Business Structures Committee

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Acknowledgments

The Artificial Intelligence Working Group of the Alternative and New Law Business Structures (ANLBS) Committee of the International Bar Association (IBA) is proud to present this first handbook, which covers the main topic for a number of jurisdictions around the globe.

This project is the first IBA publication on the existing guidelines and statutory regulations on the use of artificial intelligence (AI) as a professional tool. As a publication of the ANLBS Committee, it is intended to be updated every two years, and it has coverage of all the listed jurisdictions.

We are thankful for the contributions from all participant firms, which made a tremendous effort not only to cover the legal aspects but also to work together in the best interest of our legal community.

We are particularly thankful to the IBA Technology Law Committee, the IBA North American Regional Forum and the AI and Ethics group of the Future of Legal Services Commission for their active involvement in this project and for their contributions, without which this project would not be possible.

In this context, we believe that this publication is an important tool to provide insights on public policies to ensure AI's beneficial use as a professional tool, particularly for the legal profession in the jurisdictions considered.

We also thank the IBA for its continuing support of this initiative, and encourage the members of the IBA ANLBS Committee, the IBA Technology Law Committee, the IBA North American Regional Forum and the AI and Ethics group of the Future of Legal Services Commission to contribute to future editions.

If any IBA member is interested in contributing to drafting a country chapter not yet included in this publication, please do contact Riccardo G Cajola (rgc@cajola.com).

Disclaimer

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Anna Yamaoka-Enkerlin

White & Case*

In January 2020, Google Chief Executive Officer (CEO) Sundar Pichai made waves when he declared that 'there is no question in my mind that artificial intelligence needs to be regulated', and called 'international alignment critical'.[1]

Three years later, as discussed at length below, we can take stock and say that progress is underway. But at the same time as the critical need for ethical AI standards is clearer than ever, the prospect of seamless 'global' alignment on AI regulation seems more unlikely than ever.[2]

Events over last three years – from Russia's invasion of Ukraine to the banning of China's Huawei from the 5G networks of many Western countries – have also heightened the sense in which the future may be shaped by a struggle that is as strategic as it is ideological. AI will shape, facilitate, and accelerate this struggle. Although standard setting may convey a sense of neutrality, this disguises an intense ethical, commercial and geopolitical struggle to control the future of AI.[3] Worldwide acceptance of one's proposed standard, especially when that standard tracks a company's proprietary technology, allows that company or country to reap commercial rewards and set the norms for the future development of AI; the emergence of global standards 'not only impacts the power of nation-states, but also changes the power of corporations'.[4]

The aim of this chapter is to highlight briefly some of the most critical intergovernmental AI policy initiatives currently underway. Most deal in high-level, generally applicable principles rather than being tailored to the context of AI use in legal or other professional contexts. But a sense of the multilateral efforts taking place in this area should be relevant to all professionals who have an interest in anticipating the future of technological progress, incoming regulation and possible liability while leveraging the ethical use of AI as a competitive advantage.

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* Many thanks to Sofya Cherkasova for her research assistance in updating the second edition of this chapter.

1 Sundar Pichai, 'Why Google thinks we need to regulate AI', *Financial Times* (London, 20 January 2020), see www.ft.com/content/3467659a-386d-11ea-ac3c-f68c10993b04 accessed 2 July 2020.

2 See EU special committee on Artificial Intelligence in a Digital Age, Artificial Intelligence Diplomacy, June 2021, https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662926/IPOL_STU(2021)662926_EN.pdf; Joseph Bouchard, 'AI Strategic Competition, Norms, and the Ethics of Global Empire', The Diplomat, (Arlington , 1 December 2021) https://thediplomat.com/2021/12/ai-strategic-competition-norms-and-the-ethics-of-global-empire accessed 12 February 2023.

3 Alan Beattie, 'Technology: How the US, EU and China compete to set industry standards', *Financial Times* (London, 24 July 2019) www.ft.com/content/0c91b884-92bb-11e9-aea1-2b1d33ac3271 accessed 26 July 2020.

4 Aynne Kokas, 'Cloud Control: China's 2017 Cybersecurity Law and its Role in US Data Standardization', 29 July 2019, see https://ssrn.com/abstract=3427372 or http://dx.doi.org/10.2139/ssrn.3427372 accessed 26 July 2020.

Organisation for Economic Co-operation and Development (OECD)

The OECD's Principles on Artificial Intelligence – the first intergovernmental standards on AI – were adopted by 42 countries on 22 May 2019.[5]

Although these principles are meant to apply across all sectors, the possibility of overlap with other professional regulation is acknowledged by the preamble, which 'underlines' that 'certain existing regulatory and policy frameworks already have relevance to AI, including those related to [...] responsible business conduct'.[6]

Contained within the OECD Council Recommendation on AI, the principles are delivered in two sections. The first section, 'principles for responsible stewardship of trustworthy AI', elaborates on five 'complementary value-based principles':

1. inclusive growth, sustainable development and wellbeing;
2. human-centred values and fairness;
3. transparency and explainability;
4. robustness, security and safety; and
5. accountability.

The second section, 'national policies and international cooperation for trustworthy AI', explicates five 'recommendations' for signatories:

1. investing in AI R&D;
2. fostering a digital ecosystem for AI;
3. shaping an enabling policy environment for AI;
4. building human capacity and preparing for labour market transformation; and
5. international cooperation for trustworthy AI.

The OECD Committee on Digital Economy Policy is responsible for monitoring the implementation of these recommendations, as well as the development of more practical guidance through fostering international dialogue at the OECD AI Policy Observatory.[7]

Although OECD recommendations are not binding, they 'are highly influential', and in the past, have formed the starting point for government negotiations on

5 OECD, 'OECD Principles on Artificial Intelligence', see www.oecd.org/going-digital/ai/principles accessed 2 July 2020.

6 OECD, 'Recommendation of the Council on Artificial Intelligence' (2019), see https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449 accessed 2 July 2020.

7 OECD, 'Artificial Intelligence', see www.oecd.org/going-digital/ai accessed 10 July 2020.

national legislation, as seen by the influence of the OECD Privacy Guidelines on privacy legislation worldwide.[8]

The influence of the OECD's recommendations is also instantiated by two other intergovernmental pacts on the responsible development and use of AI: The G20's 'Osaka Leaders' Declaration' and associated initiatives, and the Global Partnership on Artificial Intelligence (GPAI).

The G20

In June 2019, the Group of Twenty (G20) issued the 'Osaka Leaders' Declaration' on the digital economy. Along with pushing for concepts such as cross-border 'Data Free Flow with Trust', the G20 committed to a 'human-centred approach to AI' and welcomed the 'non-binding' G20 AI principles, which are drawn from the OECD principles.[9] In 2021 G20 Digital Minsters issued a Declaration, reaffirming their commitment to these AI principles and issued the 'G20 Policy Examples on How to Enhance the Adoption of AI by MSMEs and Start-ups'.[10]

The Global Partnership on Artificial Intelligence

The Global Partnership on Artificial Intelligence (GPAI) stems from a pledge by Canada and France to bridge the theory and practice of 'a vision of a human-centric artificial intelligence'.[11] GPAI was inspired in part by the Intergovernmental Panel on Climate Change (IPCC) to develop global governance of AI.[12] Founding GPAI parties, including Australia, France, Germany, India, Italy, Mexico, Singapore, Slovenia, South Korea, the United Kingdom, the United States, and the European Union, have pledged to 'support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms, and our shared democratic values, as elaborated in the OECD Recommendation on AI'.[13]

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8 OECD, 'OECD Principles on Artificial Intelligence', see www.oecd.org/going-digital/ai/principles accessed 10 July 2020.

9 Government of Canada, Global Affairs, 'G20 Osaka Leaders' Declaration', see https://www.international.gc.ca/world-monde/international_relations-relations_internationales/g20/2019-06-29-g20_leaders-dirigeants_g20.aspx? accessed 29 June 2019.

10 G20, 'Declaration of G20 Digital Ministers: Leveraging Digitalisation for a Resilient, Strong, Sustainable and Inclusive Recovery', 5 August 2021, see http://www.g20.utoronto.ca/2021/210805-digital.html accessed 28 June 2022.

11 'Innovation, Science and Economic Development Canada', Joint Statement from Founding Members of the Global Partnership on Artificial Intelligence, see https://www.canada.ca/en/innovation-science-economic-development/news/2020/06/joint-statement-from-founding-members-of-the-global-partnership-on-artificial-intelligence.html accessed 14 June 2020.

12 Nicolas Miailhe, 'Why We Need an Intergovernmental Panel for Artificial Intelligence', *Our World*, 21 December 2018, see https://ourworld.unu.edu/en/why-we-need-an-intergovernmental-panel-for-artificial-intelligence accessed 14 June 2020.

13 See n 8 above.

Hosted by the OECD in Paris, GPAI has focused its initial efforts on four working group themes:

1. Responsible AI – studying the effects of social media recommender systems on users[14] and elaborating on recommendation for government action in the area of climate change and AI.[15]

2. Data governance – producing guidance for policymakers in the sphere of data justice and highlighting the potential of data trusts to address social issues and climate change.[16]

3. The future of work – analysing 'how AI can be used in the workplace to empower workers'.[17]

4. Innovation and commercialisation – examining the adoption of AI by small and medium-sized enterprises (SMEs) and ways to protect AI innovation and intellectual property.[18]

The United Nations

The UN is engaged in AI-related activities across the entire organisation,[19] but the following are stand-out efforts at global coordination to secure the beneficial use of AI, in particular to achieve the Sustainable Development Goals (SDGs).

International Telecommunications Union (ITU)

The ITU is a specialised UN agency for information and communications technology (ICT). A public-private membership that includes 193 Member States and over 900 companies, universities, and international and regional organisations, its functions include developing ICT policies and internationally interoperable technical standards.

Although two private regulatory standard networks – the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) – are the leading bodies for standard setting in digital technologies, the ITU is the only

14 GPAI, 'Responsible AI for Social Media Governance: A proposed collaborative method for studying the effects of social media recommender systems on users' (November 2021), see https://gpai.ai/projects/responsible-ai/social-media-governance/responsible-ai-for-social-media-governance.pdf accessed 28 June 2022.

15 GPAI, 'Climate change and AI: Recommendations for government action' (November 2021), see https://gpai.ai/projects/responsible-ai/environment/climate-change-and-ai.pdf accessed 28 June 2022.

16 GPAI, Working Group on Data Governance, see https://gpai.ai/projects/data-governance accessed 28 June 2022.

17 GPAI, Working Group on the Future of Work, see https://gpai.ai/projects/future-of-work accessed on 28 June 2022.

18 GPAI, Working Group on Innovation and Commercialization, see https://gpai.ai/projects/innovation-and-commercialization accessed 28 June 2022.

19 ITU, 'United Nations Activities on Artificial Intelligence (AI)' (2021), see https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2021-PDF-E.pdf accessed 28 June 2022.

treaty-based organisation with Member States.[20] To a greater degree than ISO, IEC, and prominent industrial associations and consortia such as the Institute of Electrical and Electronics Engineers (IEEE)[21], the ITU's standards are notable for being driven by corporate and national interests outside of North America and the EU. The standards that it produces are particularly influential in the developing world.[22]

Relevant ITU focus groups include the ITU Group on Machine Learning for Future Networks and on AI for Autonomous and Assisted Driving.[23] In line with China's strategy to become the world's standards supplier,[24] Chinese companies have been particularly active in the ITU, gaining acceptance for their standards proposals in the areas of facial recognition and other types of visual surveillance.[25] The ITU also convenes the AI for Good Global Summit, the 'leading UN platform for global and inclusive dialogue on AI', which collaborates with public and private bodies, as well as over 37 UN agencies to 'identify strategies to ensure that AI technologies are developed in a trusted, safe and inclusive manner, with equitable access to their benefits'.[26] Finally, it hosts an 'AI repository' to gather information on AI-related projects that aim to advance progress on the UN SDGs.

UN Educational, Scientific and Cultural Organization (UNESCO)

On 24 November 2021 UNESCO adopted the Recommendation on the Ethics of Artificial Intelligence, 'the first global standard-setting instrument on the ethics of artificial intelligence'.[27] A first draft of the Recommendation was proposed by an Ad-Hoc Expert Group for the Recommendation on the Ethics of AI composed of 24 specialists in AI and Ethics,[28] and was then developed after a consultation process that included: (1) public online consolation; (2) Regional and Sub-regional

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20 Jeffrey Deng, 'Balancing Standards: U.S. and Chinese Strategies for Developing Technical Standards in AI', *NBR*, 1 July 2020, www.nbr.org/publication/balancing-standards-u-s-and-chinese-strategies-for-developing-technical-standards-in-ai accessed 10 July 2020.

21 For an important contribution to the development of ethical AI standards with recommendations for implementation developed by over 700 global experts, see Kyarash Shahriari and Mana Shahriari, 'Ethically aligned design: A vision for prioritizing human wellbeing with artificial intelligence and autonomous systems', IEEE, 2017, https://ieeexplore.ieee.org/document/8058187 accessed 12 February 2023.

22 Anna Gross, Madhumita Murgia and Yuan Yang, 'Chinese tech groups shaping UN facial recognition standards' *Financial Times* (London, 1 December 2019), see www.ft.com/content/c3555a3c-0d3e-11ea-b2d6-9bf4d1957a67 accessed 10 July 2020.

23 ITU, 'International Standards for an AI-Enabled Future', *ITU News*, 6 July 2020, see https://news.itu.int/international-standards-for-an-ai-enabled-future accessed 10 July 2020.

24 Matt Sheehan, Marjory Blumenthal And Michael R Nelson, 'Three Takeaways From China's New Standards Strategy', *The Carnegie Foundation*, 28 October 2021, https://carnegieendowment.org/2021/10/28/three-takeaways-from-china-s-new-standards-strategy-pub-85678 accessed 12 February 2023.

25 See n 22 above; see also Asia Society Policy Institute, 'Stacking the Deck: China's Influence in Digital Rules Setting', 30 November 2021, https://asiasociety.org/policy-institute/events/stacking-deck-chinas-influence-digital-rules-setting accessed 12 February 2023.

26 AI for Good Global Summit 2020, see https://aiforgood.itu.int accessed 10 July 2020.

27 UNESCO, 'Recommendation on the Ethics of Artificial Intelligence', see https://unesdoc.unesco.org/ark:/48223/pf0000381137 accessed 28 June 2022.

28 UNESCO, 'Composition of the Ad Hoc Expert Group (AHEG) for the Recommendation on the Ethics of Artificial Intelligence' https://unesdoc.unesco.org/ark:/48223/pf0000372991 accessed 12 February 2023.

consultations co-organised with host countries around the world, and (3) multi-stakeholder workshops in 25 countries.[29] The Recommendation, which was endorsed by 193 countries, 'aims to provide a basis to make AI systems work for the good of humanity'.[30] It establishes the values that serve as benchmark for any AI system: respect, protection and promotion of human rights, environment and ecosystem flourishing, ensuring diversity and inclusiveness, living in peaceful, just and interconnected societies. Building on these values, the Recommendation outlines 11 areas of policy action: Ethical Impact Assessment, Ethical Governance and Stewardship, Data Policy, Development and International Cooperation, Environment and Ecosystems, Gender, Culture, Education and Research, Communication and Information, Economy and Labour, Health and Social Well-Being.

UN Convention on Certain Conventional Weapons (CCW)

States which are parties to the UN Convention on Certain Conventional Weapons (CCW) have been discussing the regulation of emerging lethal autonomous weapons systems (LAWS), with the UN Secretary-General repeatedly calling on states to conclude a new relevant international treaty.[31] In 2017, a Group of Governmental Experts was established to assess emerging legal questions related to LAWs. In 2019, at the recommendation of the Group, the 2019 Meeting of the High Contract Parties to the CCW adopted 11 guiding principles on LAWs.[32] These principles: affirm the applicability of international law – including international humanitarian law – to the development, acquisition, and deployment of LAWs; highlight the need to consider the risks of proliferation, including acquisition by terrorist groups; and call for retaining human responsibility and accountability across the entire life cycle of the weapons systems – all while recognising the need to balance military necessity and humanitarian considerations. But apart from the publication of these principles, substantive progress on a binding international treaty has been stalled by opposition from military powers such as China, Russia, the UK and the US.[33]

29 UNESCO, Recommendation on the Ethics, 'Ethics of Artificial Intelligence', https://en.unesco.org/artificial-intelligence/ethics#recommendation accessed 13 September 2022.

30 *Ibid*.

31 'Autonomous weapons that kill must be banned, insists UN Chief', *UN News*, 25 March 2019, see https://news.un.org/en/story/2019/03/1035381 accessed 10 July 2020.

32 UN, 'background on LAWS at the CCW' https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/background-on-laws-in-the-ccw accessed 18 September 2022.

33 Zelin Liu, and Michael Moodie, 'International Discussions Concerning Lethal Autonomous Weapon Systems', see Reuters, 'U.N. talks adjourn without deal to regulate 'killer robots' https://www.reuters.com/world/un-talks-adjourn-without-deal-regulate-killer-robots-2021-12-17; US Congressional Research Service, 'International Discussions Concerning Lethal Autonomous Weapon Systems', 21 December 2021 https://sgp.fas.org/crs/weapons/IF11294.pdf accessed 12 February 2023.

UN Centre for Artificial Intelligence and Robotics (UNICRI)

Launched in 2015, UNICRI's aim is to 'enhance understanding of the risk-benefit duality of Artificial Intelligence and Robotics through improved coordination, knowledge collection and dissemination, awareness-raising and outreach activities'.[34] UNICRI has partnered with INTERPOL to study the impact of AI in law enforcement and to develop the 'Toolkit for Responsible Artificial Intelligence Innovation in Law Enforcement', which is expected to be presented to experts in late 2022.[35] UNICRI has also launched the AI for Safer Children initiative, and has worked with the UN Counter-Terrorism Centre to analyse the use of AI in counter-terrorism activities.

The European Union

The European Union has been prolific in its development of AI policy initiatives, in part because the absence of a common EU framework for addressing the challenges posed by AI risks fragmenting its internal market. The EU's AI policy development is included in this chapter on multi-lateral initiatives because EU technology policy precedent affects not only all the EU Member States but also has proved highly influential globally.

In April 2021 the EU Commission launched its proposal for a 'Regulation for Laying Down Harmonised Rules on Artificial Intelligence' (the AI Act) following various EU policy initiatives focused on Ethical AI. One of the stated aims of the AI Act is to 'position […] Europe to play a leading role globally'. The EU has recognised as a priority 'the need to act as a global standard-setter in AI', explicitly recognising that falling behind in the race for global tech leadership will leave room for the adoption of standards developed in non-democratic countries to dominate.

On 6 December 2022, the European Council – a body that includes ministers from each EU Member State – finalised its modifications to the EU Commission's proposal (compromise text). As of the time of writing, the next step is for the European Parliament to adopt its own position. To that end, the Parliament is reportedly working through 3,300 proposed amendments, many focused on the definition of AI, the high-risk categorisation of certain AI systems (discussed below) and the governance scheme that the Commission's AI Act proposes. Once the Parliament finalises its own position, the Council of the EU and the European Parliament are likely to hold negotiations with the EU Commission (the 'trilogue') before a final text is decided on and adopted by both the Council and the Parliament. The AI Act will is likely to be passed in early 2024. The main features of the Act are summarised below.

34 UNICRI Centre for Artificial Intelligence and Robotics, The Hague, https://unicri.it/in_focus/on/unicri_centre_artificial_robotics, accessed 10 July 2020.

35 UNICRI, 'UNICRI and INTERPOL formally kick-off next phase of work on Toolkit for Responsible AI Innovation in Law Enforcement with funding from the European Commission', 29 November 2021, see https://unicri.it/News/Toolkit-AI-Law-Enforcement-INTERPOL-EC-UNICRI, accessed 28 June 2022.

The definition of AI

One of the more contentious aspects of the Act is the definition of AI to be adopted. The challenge is deciding on a definition not only captures the range of the 'high-risk' AI that the EU wants to target and is flexible enough to accommodate new AI techniques, but also avoids being so over inclusive as to impose undue burdens on innovation. The Commissions' draft Act defines AI systems as a 'software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with'. Annex I features three categories: machine learning approaches, logic and knowledge-based approaches, and statistical approaches. Finally, AI systems that are developed exclusively for use by the military (itself a contentions term) are excluded from the Act – a move which may seem out of step with the thrust of the AI Act as an instrument expounding AI ethics, leaving a gap that remains to be filled.

The European Council, concerned that the AI's definition unnecessarily captures many software applications that should not be burdened with compliance under the Act, has proposed a definition which is narrower in some respects, but which also removes the explicit reference to humans in 'human-defined set of objectives.' The Council has also commissioned a group to study the definition of AI relation to general purpose AI (GPAI). Opinion remains divided as to how the AI act should approach the unique opportunity, and regularity challenges, that GPAI poses. Finally, the Council has proposed adding a clause that excludes, along with AI developed exclusively for military purposes, AI that is developed exclusively for national security purpose.

Subjects of regulation

The proposed AI Act imposes new duties on various players in the 'AI value chain' including AI 'providers' who place on the market or put into service AI systems within the EU – irrespective of their locations – provided that 'the output produced by the system is used in the EU.' Providers can be natural or legal persons that are public or private. AI users will also incur duties under the act, except when using an AI system in the course of a non-professional activity. Under both the Commissions' Draft AI act and the Council's comprise text, importers and distributors will be treated as 'providers' under the legislation if, among other circumstances, they place on the market a high-risk AI system under their name, if they modify the purpose of a high-risk AI system that is already placed on the market or put into service, or they make a substantial modification to the high-risk system. In these cases, the original provider will be relieved of its obligations as a provider.

The proposed extraterritorial dimension of the AI Act – applying as it does to any provider or user so long as the relevant AI system 'output produced by those system is used in the EU' may, like similar provisions in the General Data Protection Regulation (GDPR), help to drive a 'Brussels Effect'. The Brussel's Effect refers to the way regulatory globalisation is caused by the extraterritorial influence of EU law. The GDPR achieved the 'Brussels Effect' through the territoriality provisions of its Article 3, which clarify that the GDPR's provisions apply to the processing of personal data of data subjects who are in the EU by a controller or processor not established in the EU. Furthermore, by conditioning personal data law transfers out of the EU on an 'adequacy' assessment – where 'adequate' means 'essentially equivalent' – the EU has secured leverage to demand that its international trading partners replicate its policy vision. Many jurisdictions have taken the GDPR as a starting point for designing their own legislation.

EU lawmakers have referred to the Brussels Effect as a reason to pass the AI Act quickly, although opinion is split as to whether, or how far, the EU will achieve this effect. Arguably we are already seeing tangible examples of the Brussel's Effect on AI regulation in action, as reflected in its influence on Brazil's forthcoming AI legislation.

Duties imposed

To achieve the EU's aim of fostering innovation and protecting EU values and fundamental rights, the European Commission adopted a 'risk' based approach, meaning that different levels of regulation will be applied depending on the level of risk that an AI system is considered to pose to individuals and society.

First, there are AI applications and systems that are considered under the Act to create unacceptable risks of violating EU values or fundamental rights. This includes subliminal manipulation resulting in physical or psychological harm, exploiting children or mentally disabled persons resulting in physical or psychological harm, general purpose social scoring, and remote biotitic identification by law enforcement in publicly accessible spaces (with exceptions.)

Second, there are AI applications and systems that are considered 'high-risk'. Under the Commission's proposal, whether an AI application or system is 'high risk' is determined based on the 'intended purpose of the system and on the severity of the possible harm and the probability of its occurrence'. Examples of 'high-risk' applications fall into two groups: AI involved in safety components of regulated products (eg, medical devices) which are subject to third-party assessment under the relevant sectoral legislation; and certain standalone systems that fall under various categories. The proposed categories include law enforcement, management and operation of critical infrastructure, education and vocational training, employment and worker management, migration and asylum, access to essential private services and public services, and administration of justice.

Given the extensive regulation of 'high-risk' AI, and the associated costs there is considerable debate about the scope of this category. The European Commission's impact assessment proposes that only five-to-15 per cent of currently available AI applications are 'high-risk' under the draft regulation. That number may increase if the EU more directly targets GPAI, where much research, product development – and hype for the future of AI – currently lies.

AI that is considered 'high risk' will only be allowed to be marketed by a provider if the providers conforms with a suite of legal requirements, including, but not limited to: the use of high-quality datasets; data and record-keeping to enhance traceability; the adoption of human oversight measures and implementation of high standards of algorithmic interpretability; accuracy; robustness; and cybersecurity, as well as technical documentation demonstrating compliance.

To govern the regulation of 'high-risk' AI, the Act also introduces a mandatory certification system. Under the draft regulation, before placing a high-risk system on the market, AI providers must ensure that the design and development of the system complies with the AI regulation, perform a conformity assessment to document this compliance, notify national authorities that will be tasked with administering an AI certification scheme, and then obtain a certification.

The AI Act also registers importers as enforcers, requiring that importers ensure that the relevant creator/provider of the high-risk AI system that the importer intends to place on the market has carried out a conformity assessment and obtained the required certification. If the importer finds that the creator/provider of the high-risk AI system is non-compliant, they must refuse to place the system into the market and, where there is a risk that this AI will be introduced to the market even if the importer refuses to do so, the importer must inform the AI provider and the market authorities.

The third category addressed by the proposed regulation is AI activity perceived to present a lower level risk, which will be subject only to minimal transparency requirements. Transparency obligations will apply for systems that: (1) interact with humans; (2) are used to detect emotions or determine association with (social) categories based on biometric data; or (3) 'deep fakes', which are defined as audio or video content that 'appreciably resembles existing persons, objects, places or other entities or events and would falsely appear to a person to be authentic or truthful generate or manipulate content ("deep fakes").' The requirement to label deep fakes does not apply to deep fakes authorised by law enforcement or where relevant rights, such as the freedom of expression guaranteed in the Charter of Fundamental Rights of the EU – leaving the scope of this requirement still unclear.

The fourth category of AI applications perceived to present low or no risk has no mandatory requirements although voluntary compliance will be encouraged.

Penalties

Individuals and companies who violate the act by, among other things, engaging in forbidden practices, failing to meet their obligations for high-risk systems, or not cooperating with the competent national authorities will be subject to penalties. Under the legislation, the penalty incurred will depend on the type of violation, and the identity of the party that commits the violation (ie, whether they are a provider, importer, distributer, user, etc and, where relevant, the size of the company found to be infringing the Act). The most severe fines would be levied for breaches of the ban on AI systems that pose an unacceptable risk (such as creating a social scoring system) which can reach a maximum of €30m or six per cent of the violator's annual revenue. Companies which fail to meet their obligations with regards to High-Risk AI will face fines of up to €20m or four per cent of their total annual revenue. For small and medium-sized enterprises (SMEs) and start-ups, the fines can be up to two per cent of their annual revenue.

Fostering innovation

As part of the EU's commitment to fostering innovation, and avoiding undue burdens imposed by the Act, the proposed regulation includes provisions for the creation of regulatory sandboxes, which are testing grounds for AI applications that operate under specific, limited conditions. These sandboxes, which start-ups and SMEs would be given privileges access to provided they meet certain criteria, would be used to foster innovation by allowing companies and researchers to test and develop new AI technologies in a controlled environment, without the full burden of compliance with all existing regulations. The idea, which is already being piloted , is to provide a safe space for experimentation, learning, and development of best practices, while still protecting the public interest and ensuring that AI is used in a responsible manner.

The regulatory framework has attracted various criticisms, including for undue vagueness and insufficient regulation of algorithmic fairness. Another challenge going forward – which may ultimately be the key to the Act's success or failure – will be operationalising the Act's Requirements and distilling them into technical standards; a task already being taken up by EU standard setting organisations. Even so, it is a ground-breaking regulation that is already affecting AI deployment and accelerating discussions about ethical AI worldwide.

Conclusion

The intergovernmental efforts described above could genuinely be criticised as overly vague 'ethics-washing',[36] with minimal substantive influence on design – not least because by the time regulations and standards have been finalised, they may well be out of date. At worst, one might think that attempts to regulate AI will inevitably have a stifling effect on technological progress. Others think that AI policy is best left to the private sector alone. But Pichai, at least, would appear to disagree. Without minimising the considerable work that needs to be done in operationalising these myriad principles and developing ways to verify compliance, even these high-profile efforts should not be simply dismissed. It is not only the end-result, but also the process – in particular sharing and testing of ideas across silos that accompanies these regulatory efforts – which itself advances progress towards ethical AI.[37] We have also seen in the past how 'soft law' has led to transformed 'hard law', as with the influence of the OECD privacy principles on privacy legislation around the world, as well as how ethical considerations are affecting the development of technical standards. In an area as economically and geopolitically fraught as the future of AI development, cooperation towards the mission of steering AI embodied in these multilateral efforts is cause for optimism.

36 Karen Hao, 'In 2020, let's stop AI ethics-washing and actually do something', *MIT Technology Review*, 27 December 2019, see www.technologyreview.com/2019/12/27/57/ai-ethics-washing-time-to-act accessed 2 July 2020.

37 eg, although the AI Act has not yet passed, researchers at the University of Oxford are already using available information to develop a conformity assessment procedure for AI systems, see, Luciano Floridi et al, 'capAI – A Procedure for Conducting Conformity Assessment of AI Systems in Line with the EU Artificial Intelligence Act', SSRN, 23 March 2022, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4064091 accessed 12 February 2023.

Argentina

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1. What is the understanding or definition of AI in your jurisdiction?

The concept of artificial intelligence (AI) has scarcely been mentioned in recent Argentine legislation, and has not been regulated as such. There is currently no statutory definition of the term AI in Argentina, or a clear-cut or generally agreed upon definition of the term – the same as other modern technological concepts such as 'Big Data' and 'machine learning'. Notwithstanding this, scholars' legal doctrine has generally stated that AI may be defined as a device that can function in a similar manner to human intelligence, with the ability to learn, reason and outdo itself. To this end, it uses algorithms, machine learning or deep learning and neural networks to develop solutions. In general terms, it is agreed that AI implies that a system may collect large amounts of data, and on the grounds of such data, draw conclusions or make autonomous decisions replicating human intelligence, or at least developing rational thought in search of the best possible results. It is generally agreed that AI has certain degrees of autonomy in decision-making as opposed to machine learning, for example. Bear in mind that, in the future, all of this may be widened or narrowed depending on the legal evolution of the concept in Argentina, and in legislation that may be enacted accordingly. In Argentina, AI is expected to have an impact mainly on the health sector, financial and banking sector, manufacturing and retail commerce.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

Nowadays, there are no locally developed AI tools used in Argentina in practice for legal services. However, the public sector and the Public Prosecutor's Office of the City of Buenos Aires (the 'Prosecutor's Office'), along with AI Lab within the University of Buenos Aires, created a system named 'Prometea', aimed at providing a predictive tool to the judiciary and public administration for the resolution of cases and administrative documents. While it has been presented by the Prosecutor's Office as an AI system, it should be noted that it operates as a machine learning system with no self-autonomy for decision-making. It currently

operates for cases involving low amounts and similar characteristics, such as traffic accidents, to determine tort liability.

3. If yes, are these AI tools different regarding • independent law firms; • international law firms; and • in-house counsel; and what are these differences?

Not applicable.

4. What is the current or planned regulatory approach on AI in general?

The current/planned regulatory approach related to AI is still not very clearly defined in Argentina. Although certain initiatives have taken place with regard to technology in recent years.

With regard to Big Data, in 2017, Regulation No 11/2017 created the 'Big Data Observatory', an entity within the IT and Communications Bureau. Although its specific tasks were to be defined by further regulation, it aims to 'study the regulatory framework of personal data use', 'foster and create Big Data technological platforms', 'promote good Big Data practices' and 'propose new regulations'. To date, Regulation No 11/2017 remains without further regulations, and none of these regulatory frameworks have been passed.

Also, in November 2018, Decree No 996/2018 was issued, by which the Argentine federal government set forth the basis for an 'Argentine Digital Agenda' ('Agenda Digital Argentina') aiming to establish guidelines for a technological legal framework and digital institutional strategy to be implemented within the public sector throughout the country for 2030. These guidelines mention AI, as well as other technological concepts. Given the terms of the decree, its broad guidelines and potential scope, further specific regulations may be issued in the future.

In March 2018, experts in the technological industry were invited to visit the Chamber of Deputies to debate the challenges of the 4° Industrial Revolution for Production, Labour and Social Security.[38] On this occasion, one of the topics was related to the use of AI in different types of productive processes, and experts agreed on the need to join forces to welcome new technologies.

Later in May 2019, Argentina, along with other 41 countries, adopted the Organisation for Economic Co-operation and Development (OECD) Principles on

38 For a description, see www.hcdn.gob.ar/prensa/noticias/2018/noticias_0423.html accessed 24 July 2020.

Artificial Intelligence[39] that aim to lead governments, organisations and individuals in the drafting of the design and management of AI systems, to prioritise persons' interests, as well as warrant that those that design and manage AI systems respond to its correct functioning. Therefore, on this path, Argentina started to take actions towards the drafting of a National AI Plan.[40] However, this path was put on hold because of the change of government that took place in December 2019, and later with the sanitary emergency caused by Covid-19.

Furthermore, internet service providers (ISPs) are key actors in the processing of Big Data, and their liability is still unregulated to date, in spite of several bills on the matter.

Without specific legislation currently in place, ISPs' duties and liabilities with regard to processing Big Data is judged based on tort principles (Civil and Commercial Code) and privacy law, including matters such as database ownership, purpose and final usage (ie, misuse) of analytics made with Big Data and treatment of sensitive data.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

On a legislative level, there are no planned regulations to be issued on the general use of AI or machine learning systems. However, there is a bill project under examination in the Chamber of Deputies identified as No 0509-D-2019.[41] This project seeks the creation of a Federal Council of AI with the main mission of promoting the study, awareness, investigation and dissemination of topics related to AI and the like. This council would also be in charge of the following tasks: associating related actors involved in AI, providing an agreement space and promoting dialogue among them; acting as an observer of AI; preparing awareness campaigns regarding technology risks; drafting best practice guides, and promoting the transparency and use of open code in new technologies; among others.

Considering the lack of specific legislation on this matter, in AI-related matters, we will have to apply general legislation (such as the Civil and Commercial Code, Personal Data Protection Law, Trademark, Intellectual Property and Consumer Defense Regimes) trying to frame its provisions to the specific case, whether subsidiary or analogically. In a broad manner, below we state the most relevant provisions that may be applicable to an AI case.

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39 This was notified by the OECD website, see www.oecd.org/centrodemexico/medios/cuarentaydospaisesadoptanlosprincipiosdelaocdesobreinteligenciaartificial.htm. For the full text of the Recommendation of the Council on AI, see https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449 accessed 24 July 2020.

40 Eg, on July 2019 meetings were held. For more information, see www.argentina.gob.ar/ciencia/desconferencia-sobre-inteligencia-artificial accessed 24 July 2020.

41 For the full text, see www.hcdn.gob.ar/proyectos/textoCompleto.jsp?exp=0509-D-2019&tipo=LEY accessed 24 July 2020.

Data protection and privacy

The primary legislation governing data protection in Argentina is the Argentine Data Protection Act No 25,326 (the 'PDPA'), its Regulatory Decree No 1558/2001 and complementary regulations from the Agency of Access to Personal Information (AAIP), the enforcement authority of the PDPA. Using AI involves the processing of large amounts of data, including personal data, as defined under the PDPA, and compliance with this legislation must be strictly observed. The PDPA is grounded on consent and purpose principles, and rules on data controllers and processors, as well as on the collection and processing of sensitive data (personal data; racial and ethnic origin; political opinions; religious, philosophical or moral convictions; health data, among others) that may only be processed with the data subject's consent and if legally authorised to do so. This general provision must be duly considered when using AI technology.

Automatised processing of personal data

Moreover, another issue to be considered under Argentine law and the PDPA, is the processing of personal data through electronic or automatised means; the processing of 'informatised data' as the term is defined on the PDPA, and automatised decision-making, as when using AI technology. In these regards, the AAIP issued certain criteria for the better interpretation of the PDPA, and through Regulation No 4/2019, and with regard to automatised processing of personal data, determined that the data subject shall have the right to obtain from any data controller an 'explanation about the logic applied to an automatised decision', when the data controller makes decisions based only on the automatised processing of personal data, and such a decision produces the data subject's 'pernicious legal effects' or affects them negatively in a significant way. This shall be taken into account when processing personal data in Argentina, including with AI systems. Also, Argentina in 2019 executed 'Convention 108'[42] of the Council of Europe, which is a binding multilateral instrument on data protection related to the automatised treatment of personal data for members of the convention.

Torts and liability

In the case of AI, IT systems' capacity to make autonomous decisions seems to pose the greatest potential impact in terms of liability. The application of causation principles and determining who shall be considered liable for the fault that causes damages seems a crucial legal challenge, particularly if a negligence regime (as opposed to strict liability) is applicable. It is important to note that AI does not have legal capacity in Argentina, meaning that the

42 For the full text, see https://rm.coe.int/16806c1abd accessed 24 July 2020.

natural and legal persons behind the AI would carry all relevant rights and responsibilities related to the AI and its application.

Intellectual property rights

In Argentina: (1) Intellectual Property Act No 11,723, amended by Software Law No 25.036, applies to computer programs, and rules the rights of intellectual property and the use of software products, and Decree No 165/94 rules the use of software and its reproduction and databases; (2) Law No 22.326 rules Trademarks; and (3) Law No 24.481, Invention Patents and Utility Models, is applicable to AI technology, even though it makes no express reference to it and its implementation.

Consumer rights

In general, and with regard to AI, it should be noted that in Argentina's legal order and in the framework of consumer relations, sections 2 and 40 of the Consumer Defense Act No 24,240 state the responsibility of the entire chain of commercialisation for damages resulting from the provision of their products and/or services, and the defects or risks and warranties derived from them.

6. Is free data access an issue in relation with AI?

Yes, free data access is an issue in relation with AI in Argentina, as AI requires the use of large amounts of data, which may encompass personal data as defined by the PDPA and therefore protected by it. The PDPA defines personal data as 'information of any type referred to physical individuals, or legal entities, either determined or determinable', and provides that data subjects have not only the right to access their personal data, but the right to rectify, suppress and update their personal data for periods of time no less than six months and free of charge.

With regards to the security and confidentiality of the personal data, the PDPA provides the general duties of security and confidentiality of information in sections 9 and 10. AAIP Resolution No 47/2018, on the other hand, provides the Recommended Security Measures for the Processing and Conservation of Personal Data, and notwithstanding they are soft law and therefore not mandatory, they serve as a parameter or ideal standard to be respected when processing personal data, including through AI means.

Finally, it should be noted that in May 2020 – and in the context of Covid-19 – the Ministry of Security issued Regulation No 144/2020 that approves the general protocol to prevent crimes by using digital open sources. In this regard, it should be noted that this regulation is very wide, does not differentiate among open

source intelligence/social media intelligence and will be in force, in principle, only as long as the events caused by the Covid-19 pandemic scenario last.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

To the best of the authors' knowledge, there are not yet any legal cases in Argentina regarding the provision of legal services or other sectors of relevance related to the use of AI or decisions concerning sectors that might be applicable to the use of AI in the provision of legal services.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

Lawyers are able to provide professional services and advise with the help of technology, and there are generally few regulatory limitations in Argentina with regard to the provision of legal services. What is generally regulated is the procedures before courts and the way lawyers should conduct themselves and practise law under the supervision of the bar association of the corresponding jurisdiction (membership of which is compulsory for the provision of legal services in the location where the lawyer is supposed to act).

9. What is the role of the national bar organisations or other official professional institutions?

The Bar Association of the Autonomous City of Buenos Aires has yet to give recommendations specifically on the use of AI technology, but it is a topic that has been addressed in several meetings and conferences considering the increasing importance it has in our profession.

Artificial Intelligence Work Group Project

Australia

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1. What is the understanding or definition of AI in your jurisdiction?

There is no legal definition for AI in Australia. Although some Commonwealth legislation explicitly refers to the use of technology or computer programs in order to permit the use of AI under that legislation,[43] no piece of Commonwealth, state or territory legislation[44] uses or defines the term 'artificial intelligence'.

The Australian Government has endorsed a working definition for AI which was developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), a government agency responsible for scientific research. The CSIRO's definition for AI is:

> 'A collection of interrelated technologies used to solve problems autonomously, and perform tasks to achieve defined objectives, in some cases without explicit guidance from a human being.'[45]

This definition for AI was adopted by the government in its *AI Action Plan*[46] which sets out a framework for Australia's vision for AI.

It is worth noting, however, that this definition has not been adopted uniformly across government and there is more than one definition in use in legal policy and reform discussions on AI in Australia. For example, one federal parliamentary inquiry, the Parliamentary Joint Committee on Law Enforcement's inquiry on

43 There are several examples of Commonwealth legislation specifically permitting administrative decisions to be made by computers, with these decisions deemed to have been made by the department official. Examples include the Social Security Administration) Act 1999 (Cth), s 6A, Migration Act 1958 (Cth) s 495A and Veterans' Entitlements Act 1986 (Cth) s 4B.

44 Australia has a federal system of government, with law-making powers divided between the Commonwealth (the federal, national government) and each state and territory.

45 S A Hajkowicz, S Karimi, T Wark , C Chen, M Evans, N Rens, D Dawson, A Charlton, T Brennan, C Moffatt, S Srikumar and K J Tong (2019) *Artificial Intelligence: Solving problems, growing the economy and improving our quality of life*, CSIRO Data61 and the Department of Industry, Innovation and Science, Australian Government, p 2.

46 Department of Industry, Science, Energy and Resources, *Australia's AI Action Plan*, June 2021, p 4.

the impact of new and emerging information and communication technology, defined AI as the 'simulation of intelligence processes by machines, especially computer systems'.[47] Other national bodies have preferred to adopt internationally recognised definitions. For example, the Australian Human Rights Commission (AHRC) refers to the definition for AI developed by the OECD Group of Experts in its *Final Report on Human Rights and Technology* (the 'Final Report'). The OECD definition is that AI is a:

> 'Machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. It uses machine and/or human-based inputs to perceive real and/or virtual environments; abstract such perceptions into models (in an automated manner, eg, with Machine Learning or manually); and use model inference to formulate options for information or action. AI systems are designed to operate with varying levels of autonomy.'[48]

This inconsistency of adopted definitions for AI in a legal and policy context in Australia is also characteristic of industry practice in Australia. Across the market there is a spectrum of use cases for the term 'AI system', with one end of the spectrum using 'AI' to refer to systems that use less sophisticated technology, such as systems which perform primarily document or workflow automation functions using decision logic. In these contexts, the use of the term 'AI' is a more expansive or generous use of the term than that adopted by other market players and technical AI experts, who would consider a system to be an 'AI' system only where that system was performing a more sophisticated human-like function using AI concepts such as natural language processing and machine learning algorithms, beyond basic decision logic.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services?

There are three categories of AI tools in use in legal practice in Australia: (1) litigation tools for document review; (2) transactional tools primarily for due diligence contract reviews; and (3) knowledge management tools to assist with drafting and search. The forms of AI used are natural language processing, machine learning and clustering of documents by conceptual or textual similarity using pattern analysis. Litigation tools are the most developed and well-used (being mandated by courts). Transactional tools are less widely-used

47 Parliamentary Joint Committee on Law Enforcement, *Impact of new and emerging information and communication technology* (April 2019), p vii.

48 Australian Human Rights Commission, *Human Rights and Technology: Final Report* (2021), p 17.

(having been developed only in the last five years). New use cases in knowledge management are emerging, but many of these tools are yet to reach the market. There is significant opportunity in Australia for the growth and development of transactional and knowledge management AI tools in the next few years.

Litigation AI tools

AI has been in use in Australia in various forms for large scale document review for the past ten to 12 years. There are various terms which describe the use of machine learning in this area, such as technology assisted learning (TAR), simple active learning (SAL), continuous active learning (CAL), active learning or predictive coding.

Litigation AI tools are often used in very large matters where millions of documents (and many types of file formats, such as emails) may need be reviewed, for example, to assess which specific documents among a larger group may need to be produced to a court in connection with legal proceedings, or to a regulator in connection with a regulatory investigation. Generally, these 'eDiscovery' AI tools are used to predict the relevance or responsiveness of documents to a certain production request, and are therefore trained for a bespoke project based on training provided by lawyers coding an initial set of documents.

The eDiscovery tools most commonly used in the Australian market include Nuix (previously Ringtail) and Relativity. The machine learning model used in Nuix is CAL. This means that the system learns 'on the job' and recalculates hourly, the responsiveness of a document.

Transactional AI tools

Transactional AI tools are typically used in the Australian market for due diligence processes or contract reviews. Transactional tools will often deal with large data sets (eg, gigabytes of data) but are best suited to the review of contracts with a good level of text recognition, so that contracts can be 'read' by the AI tool.

Typically, transactional AI tools are trained on a set of documents, whereby certain clauses of a contract are tagged, curated and maintained. The clauses which are used to train the system may be a bank of public clauses which are designed into the system, or may otherwise be an organisation's private clause bank. The tool will use this training model to identify like clauses in other documents automatically, and therefore the same training for one project will enhance training across other projects. This allows the tool to classify documents by type, identify potential risks in documents (eg, due to the absence of a particular clause, or due to a significant variation identified in a particular type of clause), and can automatically extract clauses in a table where a user may compare all similar clauses side by side.

In Australia, the transactional AI products which are most commonly used in the market include Kira and Luminance.

Knowledge management AI tools

There is also an emergence of knowledge management AI tools in legal practice in Australia (primarily within law firms, rather than in-house counsel), although the application of these tools in the market is still in its infancy.

In some cases, knowledge management tools leverage documents and data stored in document management systems that allow legal teams to store and organise drafts and other matter-related documents. The knowledge management tools overlay the document management system to search and categorise (or 'tag') the documents and clauses stored in that system. For example, the knowledge management system may be used by a user to search for a particular type of clause, or can be used to search for expertise within a law firm. In respect of expertise, the knowledge management system may identify by search that a certain individual within the organisation has a particular expertise, as the system can identify that that person regularly works on documents stored within the document management system that relate a specific type of matter.

Some examples of these types of knowledge management tools which are emerging in the Australian market include iManage RAVN Insight and Syntheia.

There is also significant potential for knowledge management AI tools to be used in legal drafting, as they allow lawyers to search for wording and apply it directly to their documents. For example, knowledge management tools may be used to search a document management system for a certain clause and, based on its review of the system, apply a specific precedent clause to a draft agreement. The results may be curated based on where the AI tool itself is pointed. For example, the AI tool could undertake a holistic search of an organisation's entire document management system, or may only search within a specific set of categorised documents, such a documents for a particular client.

Alternatively, some tools use a pre-defined 'playbook' of clauses and risks, and can assist with initial contract reviews by matching clauses in a draft contract to an organisation's playbook, as well as drafting by suggesting precedent language.

Examples of knowledge management tools which have been recently developed for drafting include Onit's Precedent platform and DraftWise.

Whilst there is significant potential for these kinds of knowledge management AI tools, in order for them to be useful there must be precision of data. This presents a challenge for most legal practice contexts, where data is not often consistently captured. Without clean, structured data the capability and potential of these kinds of tools is significantly hampered. As a result, while some Australian

organisations have begun some level of use for these tools, there has not been significant progression or infiltration of these tools in the market.

3. If yes, are these AI tools different regarding: (1) independent law firms (2) international law firms (3) in-house counsel, and what are these differences?

Typically, the underlying AI tools will be technically similar regardless of whether the 'customer' is a law firm or in-house counsel.[49] In each case the AI tool will essentially be used to extract and label data. However, the user interface and specific use case for these AI tools will be distinct depending on the user and workflow process. For example, whereas law firms may use transactional AI tools to conduct a due diligence contract review for a client's transaction in order to identify key provisions in material contracts, an in-house team may use the same AI tool to perform contract lifecycle management, applying the AI tool to identify upcoming termination dates to input into a contract management system. Larger in-house teams may also use these AI tools to expedite and improve their review of largely standardised contracts. For example, some international in-house teams use AI tools to identify whether the clauses of a contract align with the current protocols or standard positions adopted in their organisation. However, this application of AI in an in-house context is in its infancy.

Law firms typically have greater resources to invest in AI tools compared with in-house legal teams, in addition to access to significant volumes of diverse data, often stored in enterprise-wide document management systems. The particular challenge facing law firms is how to structure the vast quantities of data that they hold, to maximise the potential of their AI tools. By comparison, in-house teams typically do not have the resources to invest in AI tools. Moreover, in-house legal teams often do not have the enterprise-wide document management systems to provide them with a native capacity for AI. As such the first challenge for in-house teams will often be to implement and embed document management systems.

4. What is the current or planned regulatory approach on AI in general?

To date, the Australian approach to regulating AI has been a soft-law, principles-based approach. This approach has led to the development and release of a set of voluntary principles (the 'AI Ethics Principles'), which may be used by business or government when designing, developing, integrating or using AI systems.[50] The AI Ethics Principles are one component of a broader AI Ethics Framework. The AI

49 We note that we have observed no distinction between the use cases for AI tools in independent law firms compared to international law firms and have considered these two categories as a combined category for the purpose of our response.

50 Department of Industry, Science, Energy and Resources, *AI Ethics Principles*, see https://www.industry.gov.au/data-and-publications/building-australias-artificial-intelligence-capability/ai-ethics-framework/ai-ethics-principles accessed 27 May 2021.

Ethics Framework and AI Ethics Principles are being developed by the Department of Industry, Science, Energy and Resources in consultation with Australian stakeholders and informed by other Australian and international initiatives. This includes the OECD's Principles on AI which Australia signed in May 2019.[51]

The Australian AI Ethics Principles include:

- Human, social and environmental wellbeing: throughout their lifecycle, AI systems should benefit individuals, society and the environment.
- Human-centred values: throughout their lifecycle, AI systems should respect human rights, diversity, and the autonomy of individuals.
- Fairness: throughout their lifecycle, AI systems should be inclusive and accessible, and should not involve or result in unfair discrimination against individuals, communities or groups.
- Privacy protection and security: throughout their lifecycle, AI systems should respect and uphold privacy rights and data protection, and ensure the security of data.
- Reliability and safety: throughout their lifecycle, AI systems should reliably operate in accordance with their intended purpose.
- Transparency and explainability: there should be transparency and responsible disclosure to ensure people know when they are being significantly impacted by an AI system, and can find out when an AI system is engaging with them.
- Contestability: when an AI system significantly impacts a person, community, group or environment, there should be a timely process to allow people to challenge the use or output of the AI system.
- Accountability: those responsible for the different phases of the AI system lifecycle should be identifiable and accountable for the outcomes of the AI systems, and human oversight of AI systems should be enabled.

As aforementioned, the principles are voluntary and as such there is no requirement that government or businesses must consider or comply with the principles in respect of any proposed use or development of AI.

51 OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (22 May 2019), see https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm accessed 24 May 2021.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Whilst there are existing legal regimes (eg, privacy) that will have an impact on the use of AI, there are no current laws or regulations that specifically apply to AI in Australia and there is no indication that any significant changes to the current, principles-based approach to regulating AI, are on the horizon.

In June 2021, the Australian Government released its AI Action Plan, following the release of an earlier AI Action Plan Discussion Paper,[52] which was published in October 2020, followed by a subsequent period of consultation. The AI Action Plan sets out a framework to guide the Australian Government's plans to leverage AI in the broader economy and to assist in coordinating government policy.

In the initial AI Action Plan Discussion Paper, it was recognised that arguments for and against specific AI regulation exist. For example, the Discussion Paper noted that 'regulatory settings must balance innovation with safeguarding consumers and the broader community' and referenced concerns raised by business that regulation of AI could lead to uncertainty and become a barrier to the adoption of AI. On the other hand, the Discussion Paper also recognised that regulatory systems needed to keep pace with emerging technologies. Despite this discussion, the Australian Government did not announce any proposals to change the existing voluntary approach to regulation in its final AI Action Plan and did not announce any intention to introduce or to consider the introduction of specific AI regulations or laws.[53]

During the same period that the AI Ethics Principles have been developed, other Australian initiatives[54] have been conducted to contribute to the discussion on the future of Australia's regulatory approach on AI. This includes the AHRC project on Human Rights and Technology (the 'Project'). The Project was launched in July 2018 and has involved research, public consultation and the publication of papers on

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52 Department of Industry, Science, Energy and Resources, *An AI Action Plan for all Australians: A call for views – Discussion Paper*. The Discussion Paper invited public submissions, which it indicated would be used to input on and inform the development of the final AI Action Plan.

53 It is worth noting that although no specific AI regulations or laws are proposed in the AI Action Plan, the Australian Government does reference a range of initiatives which are being undertaken to review existing regulations and to develop meaningful guidance on the sharing and use of data. For example, by undertaking a review of Australia's privacy laws in the *Privacy Act 1988* (Cth), by delivering an Australian Data Strategy and by setting standards for the safe and transparent sharing of public sector data under the Data Availability and Transparency Bill 2020 (Cth). See, Department of Industry, Science, Energy and Resources, *Australia's AI Action Plan*, June 2021, p 19.

54 We note that we have not referred to all completed or ongoing Australian inquiries and initiatives which have been conducted, including those that have contributed to the conversation regarding how Australia may adopt further standards and guidelines to inform government and business use of AI. In particular, we note that Standards Australia has published a report on how Australia may actively contribute to the development of, and implement, International Standards that enable 'Responsible AI'. Australia has taken an active role in the international committee on AI, ISO/IEC JTC 1/SC 42, which is involved in the development of international AI standards. According to the report, Australia intends to directly adopt some International Standards to promote international consistency of AI Standards. See *Standards Australia, Final Report – An Artificial Intelligence Standards Roadmap: Making Australia's voice heard* https://www.standards.org.au/getmedia/ede81912-55a2-4d8e-849f-9844993c3b9d/R_1515-An-Artificial-Intelligence-Standards-Roadmap-soft.pdf.aspx accessed 1 June 2021.

proposed legal and policy areas for reform, including an initial Issues Paper,[55] a White Paper on AI Governance and Leadership,[56] a Discussion Paper[57] and a Technical Paper on algorithmic bias.[58] On 27 May 2021, the AHRC's Final Report for this Project was published.[59] The Final Report focuses on ensuring that there is effective accountability in those circumstances where AI may be used to make decisions that have a legal or similarly significant effect on individuals ('AI-informed decision-making'), whether those decisions are made by government or non-government entities.

The AHRC makes a number of specific recommendations about how the Australian approach to AI should be designed to ensure that human rights are protected. While a number of recommendations are aligned with the soft-law regulatory approach that has been adopted by the Australian Government with respect to AI and emerging technologies so far,[60] the AHRC also makes recommendations for:

- creation of a new AI safety commissioner to support regulators, policy-makers, government and business to develop and apply policy, law and other standards;[61] and
- the introduction of new legislation for regulating AI.

In relation to the introduction of legislation regulating AI, in circumstances where a government agency or department uses AI to make administrative decisions, the AHRC recommended that the Australian Government introduce legislation to:

- require that a human rights impact assessment be undertaken before a government body uses an AI-informed decision-making system to make administrative decisions;[62]
- require that an individual be notified where AI is materially used in making an administrative decision that affects that individual;[63] and
- create or ensure a right to merits review of any AI-informed administrative decision.[64]

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55 Australian Human Rights Commission, *Human Rights and Technology Issues Paper* (July 2018).

56 Australian Human Rights Commission, *Artificial Intelligence: governance and leadership – White Paper* (2019).

57 Australian Human Rights Commission, *Human Rights and Technology – Discussion Paper* (December 2019).

58 Australian Human Rights Commission, *Using artificial intelligence to make decisions: Addressing the problem of algorithmic bias – Technical Paper* (2020).

59 Australian Human Rights Commission, *Human Rights and Technology – Final Report* (2021).

60 See eg, recommendations that the Australian Government: use its AI Ethics Principles to encourage corporations and other non-government bodies to undertake human rights impact assessments before using an AI-informed decision-making system (recommendation 9); adopt a human rights approach to the procurement of products and services that use AI (recommendation 16); engage an expert body (such as an AI Safety Commissioner) to issue guidance on good practice regarding human review, oversight and monitoring of AI-informed decision-making systems (recommendation 17); resource the AHRC to produce guidelines for complying with existing federal anti-discrimination laws in the use of AI-informed decision-making (recommendation 18), among others.

61 Australian Human Rights Commission, *Human Rights and Technology – Final Report* (2021), recommendation 22.

62 *Ibid*, recommendation 2.

63 *Ibid*, recommendation 3.

64 *Ibid*, recommendation 6.

For those circumstances where non-government entities use AI to inform decision-making, the AHRC recommended that the government introduce legislation:

- to require that an individual is notified where a corporation or other legal person materially uses AI in making a decision that affects the legal, or similarly significant, rights of the individual;[65]
- that provides a rebuttable presumption that, where a corporation or other legal person is responsible for making a decision, that legal person is legally liable for the decision, regardless of how it is made (including where it is automated or made using AI);[66] and
- to provide that, where a legal person is ordered to produce information to a court, regulator, oversight or other dispute resolution body: (1) that person must comply with the order even where they use a form of technology that makes the production of material difficult, and (2) if they fail to comply (because of that technology), that the body will be entitled to draw an adverse-inference about the decision-making process or related matters.[67]

The Final Report also makes specific recommendations for the introduction of legislation which regulates the use of facial recognition and other biometric technology, and for a moratorium on the use of this technology in AI-informed decision-making until such legislation is enacted.[68]

The recommendations of the AHRC have been submitted to the government, which has the ability to determine whether or not to adopt the recommendations of the Report. The adoption of the AHRC's recommendations for the introduction of specific legislation governing the use of AI would signal a change in the approach to the regulation of AI and other emerging technologies that has been adopted in Australia to date.

6. Is free data access an issue in relation with AI?

Free data access is an issue in the use of AI tools in the provision of legal services in Australia. The success of an AI tool will be determined by the size and diversity of the sample data which is used to train that tool. There are a number of factors that contribute to free data access in Australia and generally these factors apply across the spectrum of different categories of AI tools discussed in question (being litigation, transactional and knowledge management tools). These include:

65 *Ibid*, recommendation 10.

66 *Ibid*, recommendation 11.

67 *Ibid*, recommendation 13.

68 *Ibid*, recommendations 19, 20.

- Use of confidential data: as is the case in other jurisdictions, the data used to teach AI tools in a legal practice is often confidential. This means, in a transactional context for example, that the AI tools may be restricted from applying learning obtained from one matter to another matter, as the previous learning was informed by confidential information. These restrictions inhibit the progressive learning, and therefore potential, of these tools;

- Security settings and data structure of adjacent systems: the systems that are used to store data and to which AI tools may be applied often have inbuilt security features which can further restrict the usability of that stored data. For example, the security settings and permissions set by a data room will apply to documents that are stored in that data room and can act to limit how the data contained within those documents can be used (eg, clauses contained within those documents may be unable to be extracted). Alternatively, systems may store unstructured data. In a knowledge management context for example, if documents contain only unstructured or imprecise data, or if back end data is locked down, the AI tool will be unable to conduct searches and function properly; and

- Limited public data: Australia has very limited freely available, public legal data and this restricts the potential of AI tools in legal practice. For example, information that is filed with courts through court registries or with regulators is not made publicly available and free to search in Australia. This is a distinction which can be drawn between Australia and other jurisdictions, such as the United States, who have implemented a public company filing and search system (EDGAR). Whether for transactional or litigious matters, the inability to harvest public legal data poses a limitation on the potential of future AI tools which could otherwise be developed using this data, if it was made freely available.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

A number of court decisions in Australia have endorsed the use of AI in the legal proceedings to assist with discovery processes and document review.

An example includes a decision from the Supreme Court of Victoria in 2016, *McConnell Dowell Constructors (Aust) Pty Ltd v Santam Ltd & Ors (No 1)*.[69] In this case, a construction firm (the plaintiff), commenced proceedings against an insurer

69 [2016] VSC 734.

in an insurance claim relating to the design and construction of a natural gas pipeline. The plaintiff identified at least 1.4 million documents that required review in order to determine discoverability. It was identified that a manual review process for these documents would take over 23,000 hours. The parties could not agree how to conduct discovery and the court was required to make an interlocutory decision. In his decision, Vickery J endorsed the use of 'technology assisted review' (TAR) in managing discovery and identified that a manual review process risked undermining the overarching purposes of the Civil Procedure Act[70] and was unlikely to be either cost effective or proportionate.[71]

Subsequently, TAR was explicitly endorsed in Victorian Supreme Court practice notes for cases involving large volumes of documents.[72] This is also now the case in many other jurisdictions in Australia where the use of technology, including in civil procedure processes such as document discovery, has been endorsed as facilitating and improving the efficiency of litigation and supporting other overarching purposes of civil procedure such as cost-effectiveness.[73]

Similar, more recent court decisions have also implicitly endorsed the use of AI, or TAR, in document discovery and review processes. In 2020, in the Federal Court of Australia, Justice Beech in *ViiV Healthcare Company v Gilead Sciences Pty Ltd (No 2)*[74] considered how the use of a TAR method which used predictive coding with continuous active learning technology could assist in relieving the burden of discovery which may imposed on a party to that proceeding. In separate proceedings, judges have also made orders regarding proposed document management protocols, which have included the use of TAR.[75]

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

There is currently no legal profession-specific regulation planned for AI. The focus remains on developing a more generally applicable framework and standards for AI systems in Australia.

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70 *Civil Procedure Act 2010 (Vic)*, which provides a legal framework for achieving the just, efficient, timely and cost-efficient resolution of issues in dispute (s 7(1)).

71 *McConnell Dowell Constructors (Aust) Pty Ltd v Santam Ltd & Ors (No 1)* [2016] VSC 734, [7].

72 Supreme Court of Victoria, Practice Note SC Gen 5, *Technology in Civil Litigation*, p 6.

73 See eg, in the Federal Court (Technology and the Court Practice Note (GPN-TECH)), in New South Wales (Practice Note SC Gen 7: Supreme Court – Use of technology), Queensland (Practice Direction Number 10 of 2011: Supreme Court of Queensland Use of technology for the efficient management of documents in litigation), the Australian Capital Territory (Supreme Court of the Australian Capital Territory Practice Direction No 3 of 2018 – Court Technology) and Tasmania (Supreme Court of Tasmania – Practice Direction No 6 of 2019).

74 [2020] FCA 1455.

75 *Parbery v QNI Metals Pty Ltd* [2018] QSC 83.

9. What is the role of the national bar organisations or other official professional institutions?

No Australian bar association has established a committee to advise on the unique legal and regulatory issues associated with the use of AI in the legal professional or more generally.[76] However, these associations actively contribute to public debate on the issues presented by AI, including by providing submissions to government and other inquiries on AI. For example, the Law Council of Australia has provided submissions to various inquiries, including to the AHRC's White Paper on AI governance and leadership,[77] the Department of Industry, Innovation and Science's Discussion Paper on Australia's AI Ethics Framework,[78] and the Department of Industry, Innovation and Science's Discussion Paper regarding Australia's AI Action Plan.[79]

In its submission to the AI Action Plan Discussion Paper, the Law Council, Australia's top national representative body for the Australian legal profession, called for 'an appropriately targeted and balanced regulatory framework (ranging from self-regulation to legislation where required to address specific risks) regarding the use of AI, which prioritises overarching objectives of transparency and accountability.'[80] The New South Wales Bar Association has also provided a submission to the AHRC's Discussion Paper on Human Rights and Technology.[81]

76 Although some state-based bar associations have established more general committees on the use of emerging technologies. For example, the New South Wales Bar Association has established a specialist Innovation & Technology Committee that identifies, investigates and monitors technological developments more generally and educates members on effectively and ethically incorporating these technologies in practice.

77 Law Council of Australia, Submission to the Australian Human Rights Commission, *Artificial Intelligence: Governance and Leadership* (18 March 2019), https://www.lawcouncil.asn.au/publicassets/38636f04-4a5b-e911-93fc-005056be13b5/3602%20-%20AHRC%20Artificial%20Intelligence%20Governance%20and%20Leadership.pdf accessed 24 May 2021.

78 Law Council of Australia, Submission to the Department of Industry, Innovation and Science, *Artificial Intelligence: Australia's Ethics Framework* (28 June 2019), https://www.lawcouncil.asn.au/publicassets/afebc52d-afa6-e911-93fe-005056be13b5/3639%20-%20AI%20ethics.pdf accessed 24 May 2021.

79 Law Council of Australia, Submission to the Department of Industry, Innovation and Science, *An AI Action Plan for All Australians: A Call for Views* (17 December 2019), https://www.lawcouncil.asn.au/resources/submissions/an-ai-action-plan-for-all-australians-a-call-for-views accessed 24 May 2021.

80 *Ibid*, p 5.

81 New South Wales Bar Association, Submission to the Australian Human Rights Commission Human Rights and Technology Discussion Paper (20 May 2020), https://nswbar.asn.au/uploads/pdf-documents/submissions/NSW_Bar_Association_-_Australian_Human_Rights_Commission_-_AI_Discussion_Paper.pdf accessed 24 May 2021.

Brazil

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Introduction

In 2021 the growth in the use of artificial intelligence (AI) has been consolidated on several fronts, including important advances in pattern recognition and information extraction from unstructured texts, image processing with relevant applications in medicine and anti-money laundering resources and the automation of legal compliance. However, the promises of broad progress in autonomous vehicles as well as the expectation that AI would be a powerful ally against Covid-19 have yet to materialise.[82]

The use of AI to filter content on social networks has raised ethical questions on transparency, boosting a legislative initiative in Brazil with the approval in the Brazilian Chamber of Deputies of the Bill 2630/2020, the so-called 'Fake News Act'. Such imposition reflects the true distinctive element of 2021, which shall be remembered as the year of the 'regulatory turn' of AI. The 'soft-law' era in AI regulation, along with its abstract ethical principles, has come to an end. An era of 'hard law' arrives to ensure reliability in AI systems, establishing procedural obligations reflecting best practices in system development, such as impact and risk analysis, governance over data, transparency and tests on accuracy.[83]

In September 2021 the Brazilian Chamber of Deputies approved PL 21/2020 as the Legal Framework for Artificial Intelligence. Contrary to the international hard law shift, the Brazilian initiative still compiles abstract ethical principles without establishing binding obligations for public and private sectors, except for a couple feeble recommendations of impact and risk analysis.[84] The Bill is now being scrutinised by the Senate and is expected to be amended in 2022 to ensure the effective development of reliable AI as a consequence of the insertion of a minimum set of binding governance standards for high-risk systems.[85]

The improvement of legal parameters for AI applications becomes more pressing as the sector progresses in Brazil, affecting the lives of millions and raising questions about how the law should regulate new technologies.[86] A survey by IBM

82 See https://politica.estadao.com.br/blogs/fausto-macedo/a-inteligencia-artificial-em-2021-o-ano-da-virada-regulatoria accessed 29 March 2022

83 *Ibid*.

84 *Ibid*.

85 See https://www.conjur.com.br/2021-set-02/opiniao-diretrizes-aperfeicoamento-marco-ia-brasil accessed 29 March 2022

86 See https://suprema.stf.jus.br/index.php/suprema/article/view/20 accessed 20 July 2021

in partnership with Morning Consult points out that, in Brazil, chatbots (virtual agents for customer service) represent the most common use of AI applications (42 per cent), followed by call centre automation and research analysis.[87] In these cases, engagement with AI systems is more directly perceived by the general population. In other cases, however, AI tools operate behind the scenes, such as the use of automation software by Brazil's judiciary bodies.[88] This chapter provides an overview of the regulatory framework regarding the use of AI applications in Brazil, as well as their use by public institutions which execute the legal system and by companies, associations, and individuals which provide legal services in this jurisdiction.

1. What is the understanding or definition of AI in your jurisdiction?

Article 2 of PL 21/2020[89] (Bill No 21/2020), is the starting point for the legal framework for the development and use of AI by the government, companies, various entities and individuals. It gives the following definition:

> 'Art 2. For the purposes of this Law, it is considered:
>
> I – artificial intelligence system: the system based on a computational process that can, for a given set of objectives defined by man, make predictions and recommendations or make decisions that influence real or virtual environments.'

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services?

In recent years, several of Brazil's companies, as well as international companies operating in the Brazilian market, have been marketing technological products aimed at the legal sector. Research points to a popularisation of the use of techniques based on machine learning, a factor motivated at least in part by the policy of open access to judicial data. The website of the Brazilian Association of Lawtechs and LegalTechs[90] reveals that, in March 2021, more than 100 companies in the legal sector offered products or solutions aimed at the legal public in a broad sense. Although not all of these companies make use of AI, some of them

87 See https://www1.folha.uol.com.br/mercado/2021/07/brasil-apressa-lei-para-inteligencia-artificial-dizem-especialistas.shtml accessed 20 July 2021

88 See https://suprema.stf.jus.br/index.php/suprema/article/view/20 accessed 20 July 2021

89 See https://www.camara.leg.br/propostas-legislativas/2236340 accessed 20 July 2021.

90 AB2L, see https://ab2l.org.br/radar-lawtechs accessed 28 April 2022.

are specifically dedicated to this type of application, as smart technology providers for the public sector or as data analysis and jurimetrics providers.[91]

In Brazil, several public institutions have been investing in the development of AI with the primary objective of speeding up their procedures. About half of Brazil's courts have AI projects in operation or under development.[92] In 2021 there were 64 AI tools in 47 courts, in addition to the platform operated by the National Council of Justice (CNJ), with applications ranging from the transcription of hearings and drafting suggestions to the judgment of admissibility of appeals and the calculation of the probability of decision reversals. This digitisation trend is increasingly necessary for managing the efficiency of the courts, considering that Brazil is unique in terms of judicialisation with a very expressive number of lawsuits: around 78 million, according to a survey carried out by the CNJ.[93]

The robot Victor, for example, has streamlined the running of the Supreme Court of Brazil (Supremo Tribunal Federal or STF). The machine is capable of completing a job in five seconds which would previously have been done by employees in approximately 30 minutes, helping the resolution of cases through the analysis of requirements of general repercussion for the extraordinary appeals that arrive at the STF. Through this system, the STF has achieved a huge gain in efficiency in carrying out the admissibility judgment, resulting in a reduction of 80 per cent of these appeals. AI also favours the standardisation of the STF's case law, systematising understandings.

Parallel to the movement inside public institutions mentioned above, many law firms have invested in AI resources to optimise their time, avoiding repetitive tasks and reducing operating costs through tools which offer automated assistance in litigation, automatic generation of documents and contracts, jurimetrics and analysis and reorganisation of the cases portfolio.

4. What is the current or planned regulatory approach on AI in general?

Such advance in the adoption of technological tools by law firms and other legal sectors has given rise to the need to discuss the ethical limits of this use. Outdated formulas in legal practices result in slowness, bureaucratisation and injustices, making the advantages of applying AI technologies to law obvious. There are, nevertheless, important risks in the implementing this the new model, for example, regarding the protection of personal data, which requires public debate on this paradigm shift.

91 See https://suprema.stf.jus.br/index.php/suprema/article/view/20 accessed 20 July 2021

92 See https://ciapj.fgv.br/sites/ciapj.fgv.br/files/report_ai_ciapj.pdf accessed 20 July 2021.

93 See https://www.stj.jus.br/sites/portalp/Paginas/Comunicacao/Noticias/09032021-Artificial-Inteligencia-is-present-in-half-of-Brazilian-courts--aponta-estudo-inedito.aspx accessed 20 July 2021

On 6 April 2021, the Brazilian Strategy for Artificial Intelligence (EBIA) was published through Ordinance No 4617 of the Ministry of Science, Technology and Innovation (MCTI). According to Stanford University's 2021 Artificial Intelligence Index, Brazil is the 31st country to outline such a national strategy.[94]

The EBIA was developed in three stages. The first was the hiring of a specialised AI consultancy, with the objective of carrying out a study on the potential social and economic impacts of the large-scale use of AI tools and the presentation of proposals to mitigate any negative effects arising from this use. The second consisted of research into international best practices, covering topics such as general productivity gains, consequences on the labour market, education and professional requalification policies, and incentives for research, development and innovation, with the application of AI in areas such as health, urban mobility and public safety. The third stage was carried out through a public consultation which received over 1,000 contributions from civil society.[95] Based on these studies, research and recommendations, the EBIA was established with three transversal axes and six vertical axes.

The three transversal axes, which are to be considered in all AI applications, are:

1. Legislation, regulation and ethical use: legal, regulatory and ethical parameters for the development of AI;

2. AI governance: governance structure that promotes methods and procedures to ensure compliance with AI principles when developing solutions with this technology; and

3. International aspects: cooperation and integration platforms for exchanging information, experiences, regulations and good practices in conducting AI on the world stage.

The six vertical axes, which define the priority areas for applying AI, are:

1. Education: qualifying and preparing current and future generations for the changes in AI;

2. Workforce and training: preparing workers for the transformation of the labour market, with the replacement of jobs through automation and for the emergence of new positions, professional qualifications and re-qualifications;

3. Research, development, innovation and entrepreneurship – promoting public and private investments in R&D to encourage AI innovation in a holistic way - technical, social, legal and ethical aspects;

4. Application in productive sectors – promoting the use of AI in different sectors of the economy to improve the efficiency of Brazilian companies;

94 See https://mittechreview.com.br/a-estrategia-brasileira-de-inteligencia-artificial/ accessed 20 July 2021

95 *Ibid*.

5. Application in the public sector – promoting the ethical use of AI by public institutions to improve the quality of services provided to society, prioritising economy and efficiency; and

6. Public safety – encouraging the non-discriminatory use of AI in areas of public safety, respecting the right to privacy and protection of the data subject's image, with supervisory monitoring mechanisms to ensure its ethical use.

In addition, the EBIA has six initial strategic objectives which can be divided into specific actions:

1. Contribute to the elaboration of ethical principles for the development and use of responsible AI;

2. Promote sustained investments in AI R&D;

3. Remove barriers to innovation in AI;

4. Train professionals for the AI ecosystem.

5. Encourage innovation and development of Brazilian AI in an international environment.

6. Promote an environment of cooperation between public and private entities, industry and research centres for the development of AI.

The EBIA represents the beginning of a conversation on a topic of enormous importance. However, it lacks concreteness and a more detailed action plan. There are no clear budget guidelines for implementing its recommendations, nor has there been a risk-based debate on the application of AI technologies. The strategy touches on ethical aspects in a very superficial way, without offering objective, standard procedures and ground rules for regulating the use of such tools in Brazil.[96]

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Three months after the EBIA was published, the Brazilian Chamber of Deputies took its first step towards a Bill (PL) that creates the Legal Framework for Artificial Intelligence. In September 2021, the House approved PL 21/2020, the objective of which is to determine the principles, rights, duties and governance instruments for the development of AI technology in Brazil.

The draft which is now to be considered by the Senate provides for some noteworthy rules. One of which is the attribution of responsibility for damages to 'artificial intelligence agents', who are either the developers (programmers)

96 See https://www1.folha.uol.com.br/mercado/2021/07/brasil-apressa-lei-para-inteligencia-artificial-dizem-especialistas.shtml accessed 20 July 2021.

or those responsible for monitoring the software's implementation. It is a controversial option, considering that it may inhibit the implementation of AI systems. PL 21/2020 contains uncontroversial positions too, such as the compulsory documentation of steps and decisions in the software development cycle and related prior impact analysis, effective for prevention of liability for damages. Nonetheless, the creation of certification procedures to establish quality and certification marks for AI applications was not foreseen.[97]

Apparently, in view of such a system of liability to be adopted in Brazil, victims of torts caused by AI will be able to pursue damages from the technology manufacturer. Here we see a delicate issue considering the possibility that, when acting autonomously, the AI tools perform acts not originally considered by their manufacturer and/or developer. Even though the involved parties use maximum diligence, the results arising from the use of AI are not fully predictable in the current state of the art. Therefore, there is a need to discuss regulatory alternatives for civil liability regarding unpredictable results of the implementation of AI applications in the country.

6. Is free data access an issue in relation with AI?

Article 20 of the General Data Protection Law (LGPD, Law No. 13.709/2018)[98] attempts to address this issue, providing for the right of holders to request the review of automated decisions of personal data when these affect their interests. This includes the mapping of personal, professional, customer and credit profiles, as well as any aspects of the person's personality.[99]

Moreover, in Article 20, section 1, the LGPD also determines that the controller of systems that make decisions based solely on the automated processing of personal data must provide information regarding the criteria and procedures used for the automated decision. However, as AI applications' choices are defined over detectable properties based on the data, machine learning systems do not consider normative justifications for decision making,[100] which brings about technical struggle to comply with the principles of the law.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

97 See https://politica.estadao.com.br/blogs/gestao-politica-e-sociedade/o-debate-sobre-o-marco-legal-da-inteligencia-artificial-no-brasil accessed 20 July 2021.

98 See http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/lei/l13709.htm accessed 20 July 2021.

99 See https://mittechreview.com.br/a-estrategia-brasileira-de-inteligencia-artificial accessed 20 July 2021.

100 See https://suprema.stf.jus.br/index.php/suprema/article/view/20 accessed 20 July 2021

Case law understandings and common views on the subject are yet to be suitably established in Brazil.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

The National Council of Justice (CNJ) issued Resolution 332/2020, establishing ethical, transparency and governance requirements that must be observed in the use of intelligent systems in judicial contexts. In view of the importance of access to data for the development of machine learning, the CNJ also established, through Resolution 334/2020, the Advisory Committee on Open Data and Data Protection within the scope of the Brazilian Judiciary. The Committee's objective is to assist the CNJ in the construction of data access policies that balance the demands of transparency and technological development, on the one hand, and, on the other, the need to protect the data of individuals mentioned in the context of court documents, establishing standards and technical and administrative measures for appropriate processing of judicial data.[101]

9. What is the role of the national bar organisations or other official professional institutions?

In 2018, the Brazilian National Bar Association (OAB) announced the creation of the Artificial Intelligence Coordination to regulate the use of AI in the legal profession. At the time, there was an institutional concern with the launch of AI tools for legal assistance in cases without the involvement of lawyers through 'virtual robots'. The main objective of the initiative was to coordinate between legal professionals and technological development, rejecting 'opportunists' who would subordinate the role of lawyers to 'a marginal role through the disorderly and unruly massification' of AI tools.[102] The entity pointed out that the Brazilian Statute of Law provides that the activities of legal consultation are private activities of lawyers duly registered at the National Bar Association.

To contribute to the modernisation of law in Brazil, the Federal Council of the OAB currently offers OABJuris, an AI application made available free of charge to registered professionals. The tool helps attorneys across the country to find the most appropriate case law, to have stable information about recent decisions of the courts and to make safer decisions about whether to appeal or not.[103]

101 *Ibid*.

102 See https://www.migalhas.com.br/quentes/282968/oab-cria-grupo-para-regular-inteligencia-artificial accessed 20 July 2021.

103 See https://buscajuris.com.br/ accessed 20 July 2021

Canada

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1. What is the understanding of AI in your jurisdiction?

In recent years, the concept of artificial intelligence (AI) has come to encompass an array of technological advancements in the legal field. Due to its novelty and inherent complexity, there is no consensus on what the term AI entails. In its *Technology Task Force Update Report*, the Law Society of Ontario (LSO) posits that there are at least three generally accepted understandings of AI: (1) it is a branch of computer science that focuses on the simulation of intelligent behaviour in computers; (2) it is a machine's capability of imitating intelligent human behaviour; and (3) it is a collection of processes and techniques.105 However, to establish consensus among these viewpoints, the LSO outlined a 'generally acceptable' definition of AI as 'the ability for computers to accomplish tasks normally associated with the intelligent actions of human beings'.106 The need for such a consensus has become apparent when considering the use of AI in Ontario's legal sector.

2. In your jurisdiction, besides legal tech tools, are there already actual AI tools or use cases in practice for legal services?

As one of the leading provinces in AI development, Ontario has experienced a spike in emerging legal tech products that have been used by legal professionals to complement their practices. Examples of AI's common uses among legal professionals include:[107]

- document discovery and due diligence;
- assistance with routine questions;
- outcome prediction;
- contract analysis; and
- legal document generation.

104 Summer Associate at Aird & Berlis.

105 See https://lawsocietyontario.azureedge.net/media/lso/media/about/convocation/2019/technologytaskforce-report-en.pdf accessed 16 June 2022

106 *Ibid*, p 7.

107 *Ibid*, p 389.

3. If yes, are these AI tools different regarding (1) independent law firms, (2) international law firms, (3) in-house counsel, and what are these differences?

Although there is commonality between firms with respect to usage, instances in which firms employ specific AI tools vary. For example, a larger law firm focusing on M&A transactions may use an AI contract analysis tool primarily for due diligence (eg, identifying change of control and assignment clauses, and providing general summaries of the target company's contracts). A company might use the same tool to identify which contracts need to be modified due to changes in laws or standards (eg, General Data Protection Regulation (GDPR), London Interbank Offered Rate (LIBOR), etc). Whereas other tools may only be applicable for in-house counsel. For example, a tool which helps to improve the contract negotiation process for a specific form of contract that is negotiated over and over again with different counterparties (eg, the vendor's form of SAAS (software as a service) agreement) will have plenty of value for a company that consistently uses the same contract template for negotiations, but will be of little use to a law firm that is less likely to perform this work on a regular basis for the same client. However, much of this existing AI technology is costly, resulting in smaller firms being less likely to adopt it in its various forms. While this is still the case for many smaller firms, AI technology is becoming increasingly affordable which will likely result in a dramatic increase in its adoption by independent law firms.

We have also seen developments in the way the LSO is approaching these burgeoning technologies. In 2021, the LSO launched an innovation pilot project designed to allow providers of technological legal services the opportunity to offer their programmes in Ontario for a defined term, after which the providers are eligible to offer their services permanently under the auspices of the Law Society.[108] The programme is aimed at providing legal professionals with reliable and ethical tools while ensuring that the services follow operating conditions and mitigate the risk of harm to consumers. The LSO situates the pilot programme as a solution to adversity faced by individuals seeking access to justice.[109] According to their research, 80 per cent of Canadians choose not to seek professional assistance for their legal issues. By removing the regulatory barriers to AI technology, the LSO hopes to grant legal professionals access to technology that will enhance their work.[110]

4. What is the current or planned regulatory approach on AI in general?

Regulation of AI in Canada is still at an early stage. However, there are several government initiatives and commitments that offer insight into how Canada is approaching the technology.

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108 See https://lso.ca/about-lso/access-to-innovation/#benefits-of-the-a2i-project-5 accessed 16 June 2022.

109 *Ibid*.

110 *Ibid*.

In 2019, Canada launched an Advisory Council on Artificial Intelligence[111] consisting of researchers, academic scholars and business executives to advise Canada on the future of AI and its impact and opportunities in key economic sectors.[112] The following year, the council published their findings in regard to the commercialisation and adoption of artificial technology in Canada. The report stated that in order for Canada to fulfil the economic promise of AI (higher productivity, market growth, new products and services, job creation), it must 'act quickly to put in place the right factors for AI sector growth and competitiveness.'[113]

In response to the report, the Canadian Federal Budget in 2021 (Budget 2021) proposed a renewed commitment and expansion to the Pan-Canadian AI Strategy (PCAIS) which was first launched in 2017. The objectives of PCAIS include collaborating on policy initiatives, both domestic and international, which encourage the responsible, ethical and economic stewardship of AI.[114] In Budget 2021, nearly CAD440m (approximately US$340.5m) was allocated to projects initiated by the PCAIS to enable Canada to maintain its leadership in AI.[115]

The Organisation for Economic Co-operation and Development (OECD) has recently developed an initiative focused on public safety regulations. The initiative, adopted by Canada, focuses on ensuring: (1) that AI programming benefits the public; (2) that AI programming respects the rule of law, human rights, democratic values and diversity; (3) to maintain transparency and responsible disclosure; (4) to maintain robust, secure and safe functioning of AI systems; and (5) to ensure accountability on behalf of organisations and individuals involved in AI.[116]

In February 2020, the OECD released a framework for classifying AI systems to encourage policy makers and legislators to assess opportunities and weigh the risks of utilising AI systems to inform their national AI strategies.[117] The framework allows programs to be compared for their capabilities and drawbacks to help regulators characterise AI programs in their specific contexts based on their global impact. The goal of the framework is to provide the public with a common understanding of AI, and in particular, risk assessment and AI accountability. The framework dimensions included are:[118]

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111 See https://ised-isde.canada.ca/site/advisory-council-artificial-intelligence/en accessed 23 June 2022.

112 See https://www.canada.ca/en/innovation-science-economic-development/news/2019/05/government-of-canada-creates-advisory-council-on-artificial-intelligence.html accessed 16 June 2022.

113 See https://ised-isde.canada.ca/site/advisory-council-artificial-intelligence/en/commercialization-working-group/commercialization-working-group-final-report-february-2020 accessed 20 June 2022.

114 See https://cifar.ca/ai/ accessed 13 July 2022.

115 *Ibid*.

116 See https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm accessed 23 June 2022.

117 See https://oecd.ai/en/classification accessed 16 June 2022.

118 *Ibid*.

- *Data and input*
  provenance, collection and nature of data, as well as rights and identifiability (its data source), appropriateness and quality;

- *People and the planet*
  determining users of the system and affected stakeholders, addressing any human rights issues (including privacy), that impact wellbeing and environment, and the AI's displacement potential;

- *Economic context*
  AI's impact on the industrial sector, its business function and model, critical function, scale and maturity;

- *AI model*
  its characteristics, evolution technique, capabilities and use; and

- *Task and output*
  the system task, action, and autonomy level.

The Government of Canada is credited with providing noteworthy consultation to the OECD for their AI framework initiative, indicating their support for the development of a strong infrastructure for AI growth.[119] Although not legally binding, the recommendations provided by the OECD emphasise the important values of facilitating investment in research and development, fostering accessible AI ecosystems, ensuring policy environments that facilitate the deployment of trustworthy AI systems, and cooperating across borders and sectors to ensure responsible stewardship of trustworthy AI.[120]

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

In April 2019, the Government of Canada issued its Directive on Automated Decision-Making (the Directive). The Directive is aimed at ensuring that automated decision-making systems used by the federal government are 'deployed in a manner that reduces risks to Canadians and federal institutions, and leads to more efficient, accurate, consistent, and interpretable decisions made pursuant to Canadian law'.[121] Notably, the Directive only applies to the federal government's use of systems that provide external services, specifically, federal institutions referenced in the Policy on the Management of Information Technology. It does not apply to the use of AI or machine learning systems in the private sector or to provincial governments directly.

119 See https://www.oecd-ilibrary.org/docserver/cb6d9eca-en.pdf?expires=1656073567&id=id&accname=guest&checksum=3D40562C7B0AFD5797AE596605DBEBC5 accessed 23 June 2022.

120 *Ibid*, n 12.

121 See https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32592 accessed 16 June 2022.

There are five guiding principles to the Directive. To ensure the effective and ethical use of AI the [government] will:

1. understand and measure the impact of using AI by developing and sharing tools and approaches;

2. be transparent about how and when it is using AI, starting with a clear user need and public benefit;

3. provide meaningful explanations about AI decision making, while also offering opportunities to review results and challenge these decisions;

4. be as open as it can by sharing source code, training data, and other relevant information, all while protecting personal information, system integration, and national security and defence; and

5. provide sufficient training so that government employees developing and using AI solutions have the responsible design, function, and implementation skills needed to make AI-based public services better.[122]

The use of AI is also regulated through the Personal Information Protection and Electronic Documents Act (PIPEDA), which generally applies to all organisations in the private sector which collect, use, or disclose personal information in the context of commercial activities.[123] PIPEDA is 'technologically neutral', meaning that AI is 'governed by the same rules as other forms of processing'.[124] However, PIPEDA was not created specifically to deal with AI. The Office of the Privacy Commissioner of Canada (OPC) is of the opinion that PIPEDA, in its current iteration, is insufficient to govern the application of AI systems.[125] In 2020, the OPC made the following 11 proposals for key reforms to PIPEDA:

1. Incorporate a definition of AI within the law that would serve to clarify which legal rules would apply only to it, while other rules would apply to all processing, including AI.

2. Adopt a rights-based approach in the law, whereby data protection principles are implemented as a means of protecting a broader right to privacy – recognised as a fundamental human right and as foundational to the exercise of other human rights.

3. Create a right in the law to object to automated decision-making and not to be subject to decisions based solely on automated processing, subject to certain exceptions.

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122 See https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html#toc1 accessed 16 June 2022.

123 See https://www.priv.gc.ca/en/about-the-opc/what-we-do accessed 16 June 2022.

124 See https://www.priv.gc.ca/en/about-the-opc/what-we-do/consultations/completed-consultations/consultation-ai/pos_ai_202001 accessed 20 June 2022.

125 *Ibid*.

4. Provide individuals with a right to explanation and increased transparency when they interact with, or are subject to, automated processing.

5. Require the application of Privacy by Design and Human Rights by Design in all phases of processing, including data collection.

6. Make compliance with purpose specification and data minimisation principles in the AI context both realistic and effective.

7. Include in the law alternative grounds for processing and solutions to protect privacy when obtaining meaningful consent is not practicable;

8. Establish rules that allow for flexibility in using information that has been rendered non-identifiable, while ensuring there are enhanced measures to protect against re-identification.

9. Require organisations to ensure data and algorithmic traceability, including in relation to datasets, processes and decisions made during the AI system lifecycle.

10. Mandate demonstrable accountability for the development and implementation of AI processing.

11. Empower the OPC to issue binding orders and financial penalties to organisations for non-compliance with the law.[126]

It is possible that the proposals by the OPC will be answered over the next few years, as Bill C-27 (the Bill), the Digital Charter Implementation Act, was proposed on 16 June 2022. The Act was created to replace PIPEDA with a new consumer production privacy act and posits creating a new administrative tribunal and an Artificial Intelligence and Data Act to regulate responsible development of AI in Canada's marketplace.[127]

The Bill's aim is to protect the personal information of individuals while acknowledging organisations' need to collect or disclose personal information.[128] The Artificial Intelligence and Data Act will regulate international and interprovincial trade and commerce in AI by requiring businesses to adopt measures to mitigate risks of harm and biased outputs related to high-impact AI systems. The Act will further require the public reporting of records related to AI systems and establishes prohibitions related to the possession or use of an AI system.[129] The result of the Bill is pending.

126 *Ibid*.

127 See https://www.canada.ca/en/innovation-science-economic-development/news/2022/06/new-laws-to-strengthen-canadians-privacy-protection-and-trust-in-the-digital-economy.html accessed 20 June 2022.

128 *Ibid*.

129 *Ibid*.

6. Is free data access an issue in relation to AI?

In order for AI systems to function accurately, vast amounts of diverse data are needed.[130] This raises a number of issues relating to who has access to Big Data and how such access is attained. In response to such concerns, the Competition Bureau released a report in 2018, outlining key implications of Big Data on Canadian competition policy.[131] The report explored how the current approach to competition policy proposes to deal with concerns related to mergers and monopolistic practices, cartels, and deceptive marketing practices. Ultimately, the Bureau was confident that despite the new challenges posed by Big Data, a new approach to competition policy is not needed.[132]

Another issue lies with internet access. It is reported that in rural communities across Canada, 'hundreds of thousands of residents do not have basic, high speed internet access'.[133] And those that do have access often have unstable connections as a result of weather or internet traffic volumes. Moreover, connections may be limited by data restrictions. In Canada, the government has invested in several funding programmes to bring internet access to all Canadians.[134] One programme, The National Research Council of Canada, is working to improve these conditions through its government mandated High-throughput and Secure Networks Challenge programme. The programme seeks to develop innovative technologies 'so network operators and service providers can offer faster, less costly and more secure internet services to rural and remote communities across the country'.[135] In response to this need, AI capabilities are being harnessed, as it allows for efficiency and reduced human intervention. AI can be used to detect and fix network problems, ultimately saving both time and money as technicians are no longer needed to repair internet in remote locations.[136]

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to use of AI in the provision of legal services?

Canadian case law on the provision of legal services using AI is sparse, and most of the judgments that do discuss the use of AI only do so in *obiter*. What can be gleaned from the few cases that mention AI, however, is that its use is not unwelcome in Canadian courts, especially when it comes to processes such as discovery in litigation proceedings.

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130 See www.theglobeandmail.com/opinion/article-innovation-in-health-care-depends-on-responsible-expanded-data-access accessed 16 June 2022.

131 See www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04342.html accessed 20 June 2022.

132 *Ibid*.

133 See https://nrc.canada.ca/en/stories/stepping-internet-services-rural-remote-locations accessed 20 June 2022.

134 See https://ised-isde.canada.ca/site/high-speed-internet-canada/en#1 accessed 20 June 2022.

135 *Ibid*, n 29.

136 https://nrc.canada.ca/en/research-development/research-collaboration/programs/high-throughput-secure-networks-areas-focus#quantum accessed 20 June 2022.

In 2016, an Ontario Superior Court of Justice case, *Bennett v Bennett Environmental Inc*,[137] addressed the use of predictive coding in conducting a first review of documents obtained during document disclosure after the plaintiff's arrangement. In discussing the costs of document review, the judge noted the following:

> 'Given the use of predictive coding for the first level review of massive document disclosure, I do not find it unreasonable for the lawyer to then use paralegals to conduct the next level or levels of review. I make no adjustment on this account.'[138]

Drummond v The Cadillac Fairview Corp Ltd[139] is another Canadian case from the Ontario Superior Court of Justice that briefly discusses the use of AI within the legal profession. In discussing the parties' cost submission, and after finding technology-assisted research to be a recoverable counsel fee item, the judge shares their views on the future of AI in the practice of law, noting:

> 'The reality is that computer-assisted legal research is a necessity for the contemporary practice of law and computer assisted legal research is here to stay with further advances in artificial intelligence to be anticipated and to be encouraged. Properly done, computer assisted legal research provides a more comprehensive and more accurate answer to a legal question in shorter time than the conventional research methodologies, which, however, also remain useful and valuable.'[140]

The slightly more recent case of *The Commissioner of Competition v Live Nation Entertainment Inc*[141] is a 2018 judgment from Canada's Competition Tribunal. In this case, the applicants brought a motion seeking an order compelling the respondents to produce additional affidavits of documents. This was due to the fact that the respondents produced a narrowed number of documents to the applicants after using document review software. In this case, the Tribunal went as far as to endorse the use of AI, stating:

> 'The Tribunal encourages the use of modern tools to assist in these document-heavy cases where they are as or more effective and efficient than the usual method of document collection and review.'[142]

These cases suggest that Canadian courts are willing to accept the use of AI in the provision of legal services. This seems to be especially true when it comes to cases that involve the review and disclosure of documents that would otherwise require many hours of work if done by humans. This perhaps speaks to the importance

137 2016 ONSC 503, 2016 CarswellOnt 670 (WL Can)

138 *Ibid*, para 44.

139 2018 ONSC 5350 (CanLII).

140 *Ibid*, para 10.

141 2018 CACT 17

142 *Ibid*, para 15.

that Canadian courts place on efficiency and considerations as to the cost of legal proceedings. However, it may also equally reflect the relative maturity of processes such as document review, for which the use of AI is more palatable as compared to other potential applications, such as the provision of legal advice.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

With such a broad scope of application to the legal field, the emergence of AI presents several regulatory and legislative concerns with respect to its usage. In efforts to address this, the LSO formed its Technology Task Force (the Task Force): a group of lawyers, paralegals and publicly-appointed lay benchers, whose goal is to review the Law Society's framework and standard to determine whether they are adequate in serving the needs of the legal field.[143] To do so, the Task Force has grounded its approach to AI in the Law Society's mandate and foundational principles[144] – sections 4.1 and 4.2 of the Law Society Act.[145] These principles entail an ongoing focus on facilitating access to justice, evaluating regulatory risks and opportunities, and protecting the public interest. This focus must be conducted in a manner that is proportionate to the LSO's regulatory objectives. Currently, the Task Force has made inquiries into three key topics: (1) defining the scope of how far the LSO's mandate ought to expand to effectively meet its regulatory objectives; (2) determining how the LSO should be structured and who should bear responsibility to ensure these objectives are met; and (3) what steps should the LSO take to better promote innovation and the adoption of emerging technology in an informative way that educates those who use it or are impacted by it.[146] However, as a self-regulator, the LSO is faced with the challenge of whether it is appropriately situated and has the resources necessary to effectively regulate persons and entities operating legal tech tools.[147] Inevitably, the key barrier to overcoming such a challenge is the necessary technological wherewithal required to regulate such legal tools. That said, there is little doubt that the changes resulting from Covid-19 are dramatically accelerating the adoption of technology in Canada's courts and the legal profession.

143 See https://lso.ca/about-lso/initiatives/technology-task-force accessed 20 June 2022.

144 See https://lawsocietyontario.azureedge.net/media/lso/media/about/convocation/2019/convocation-november-2019-technologytaskforce-report.pdf, pp 406–407, accessed 20 June 2022.

145 *Law Society Act*, RSO 1990, c L8, ss 4.1–4.2.

146 https://lawsocietyontario.azureedge.net/media/lso/media/about/convocation/2019/technologytaskforce-report-en.pdf accessed 20 June 2022.

147 *Ibid*.

While the inquiries made by the LSO have yet to lead to concrete changes in legislation, on 13 March 2020, the OPC initiated a legislative reform policy analysis of federal privacy laws to aid in addressing this regulatory concern.[148]

9. What is the role of the national bar organisations or other official professional institutions?

The Canadian Bar Association does not currently play a large role in regulating the use of AI in the field of law. However, many provinces have general guidelines that pertain to the use of technology more broadly. For example, the Law Society of Ontario has published *Practice Management Guidelines*, providing Ontario lawyers with a general set of professional standards by which to adhere. Section 5.5 of these Guidelines is titled 'Competent Use of Information Technologies' and states that lawyers 'should have a reasonable understanding of the technologies used in their practice or should have access to someone who has such understanding'.[149] Similarly, the Law Society of Saskatchewan's Code of Conduct includes the ability to use technology as necessary to the provision of legal services in the definition of a "'competent lawyer'. It also makes specific mention of understanding the risks associated with various technologies, which can easily be applied to the use of AI. Section 3.1(4A) of the Code of Conduct states:

> 'To maintain the required level of competence, a lawyer should develop an understanding of, and ability to use, technology relevant to the nature and area of the lawyer's practice and responsibilities. A lawyer should understand the benefits and risks associated with relevant technology, recognising the lawyer's duty to protect confidential information set out in section 3.3.'[150]

An almost identical provision is also included in the Law Society of Alberta's Code of Conduct.'[151]

As a whole, the Canadian Bar Association as well as the Law Societies of each province have maintained a relatively hands-off approach when it comes to AI, playing a minimal role in its regulation and oversight.

148 See analysis of 'Which are the current or planned regulations on the general use of AI or machine learning systems?' at question 5.

149 See https://lso.ca/lawyers/practice-supports-and-resources/practice-management-guidelines/technology accessed 20 June 2022.

150 See https://www.lawsociety.sk.ca/wp-content/uploads/2020/03/codeofconduct13dec2019.pdf accessed 20 June 2022.

151 See https://documents.lawsociety.ab.ca/wp-content/uploads/2017/01/14211909/Code.pdf, s.3.1(5), accessed 20 June 2022.

England and Wales

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Introduction

This is an examination of attitudes towards the use of artificial intelligence (AI) as a professional tool as used by the legal profession in England and Wales. The profession in this jurisdiction includes a number of different types of lawyers, of which solicitors are the largest group. This chapter focuses predominantly on the use of AI by solicitors.

Solicitors are authorised by the Solicitors Regulation Authority (SRA), which is described as an approved regulator with powers to issue practising certificates that enable individuals to carry on certain legal activities known as reserved legal activities. Solicitors are able to provide legal services, subject to various conditions, as sole practitioners and independent solicitors, in law firms, and also in in-house employment.

The SRA also authorises law firms, which include sole practitioners, traditional firms of solicitors and alternative business structures where ownership and management is shared with non-solicitors. Individual solicitors and authorised law firms must comply with the SRA Standards and Regulations,[152] which set out the standards and requirements that must be achieved for the benefit of clients and in the wider public interest.

The Law Society of England and Wales is the independent professional body for solicitors, with a representative role designed to promote England and Wales as the jurisdiction of choice, and support its members through a variety of services.

Both the SRA, as the approved regulator, and the Law Society, as the representative body of solicitors, have considered the growth of AI. This is also true of the regulatory and representative bodies for the other parts of the legal profession (eg, barristers[153] and legal executives[154]), who also have similar interests in the topic. It is recognised, and not challenged, that AI will change the way in which legal services are provided both by qualified lawyers and law firms, and also non-lawyer individuals and businesses.

In this chapter, we examine both the national position and then issues for the legal services profession in responding to developments with AI technology.

1. What is the understanding or definition of AI in your jurisdiction?

152 www.sra.org.uk

153 The Bar Standards Board, see www.barstandardsboard.org.uk and the Bar Council, see www.barcouncil.org.uk

154 The Chartered Institute of Legal Executives, see www.cilex.org.uk

There is a burgeoning interest in AI and its use, but there does not appear to be a universally agreed definition of AI when discussing its use in the provision of legal services.

The SRA produced a risk report titled *Technology and Legal Services* in December 2018,[155] in which it did not seek to formulate its own definition and instead used the following meaning for the phrase, which it attributed to The Future Computed: AI and Manufacturing:

> 'AI refers to software systems that can interpret data in ways that would normally need human involvement. It is loosely defined as machine learning that can improve its own capabilities without needing humans to reprogram it. This allows the system to process information more quickly and accurately. AI systems are generally focused on specific tasks and aim to assist and enhance performance. They enhance human judgment and intelligence, rather than replace it.'[156]

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

The Law Society published an article called 'Six Ways the Legal Sector Is Using AI Right Now',[157] explaining the use of AI by the legal sector. This was written by one of its commercial partners, Seedrs, and identified the six main ways in which the legal sector was using AI tools as follows:

1. practice management automation;
2. predictive coding;
3. document assembly;
4. legal research;
5. voice recognition; and
6. do-it-yourself (DIY) law and chatbots.

While the majority of these tools are used by solicitors subject to SRA oversight, DIY law and chatbots are also being used by businesses that are not authorised and/or do not employ solicitors. The AI enables these businesses to interact with customers to create their own legal documents and get access to certain legal advice.

155 See www.sra.org.uk/risk/risk-resources/technology-legal-services.

156 See https://news.microsoft.com/futurecomputed.

157 See www.lawsociety.org.uk/news/stories/six-ways-the-legal-sector-is-using-ai.

The SRA's research supports these findings. The SRA confirms that AI systems have been developed and applied in areas that include document reviews (eg, contract reviews and discovery); conflict checks and due diligence; identifying precedents; legal research and analytics; predicting case outcomes; and billing.

The SRA generally regards the use of AI positively, arguing that technology can help smaller firms to compete with unregulated businesses through the fact that it helps solicitors with their time management, and that it can also help firms complete more work, particularly that of a routine and formulaic nature, more quickly and accurately. AI is also used to provide legal services in innovative ways, such as virtual law firms and more online legal services.

3. If yes, are these AI tools different regarding • independent law firms; • international law firms; and • in-house counsel; and what are these differences?

Most solicitors and law firms will be using AI in its simplest form with case management systems to run client files, for time recording, accounting purposes and so on. Many firms also have access to online legal information resources, such as those provided by LexisNexis[158] and other businesses. With both of these AI solutions, cost will be a determining factor that influences take up.

Larger firms, often those with an international reach, and firms that service commercial clients, are more likely to develop the use of AI more quickly because of the realities of economics, and because the volume and type of work that they do is more likely to generate a commercial justification for the use of such AI as document assembly and predictive coding. Time-consuming tasks that might otherwise be performed by humans (often by paralegals and non-lawyer employees) in smaller firms will be performed more cheaply and more quickly through the use of AI in larger firms.

In-house counsel employed in commerce is also likely to be able to adopt AI answers because of the financial position of its employers.

4. What is the current or planned regulatory approach on AI in general?

The United Kingdom is a signatory to the Organisation for Economic Co-operation and Development (OECD) Principles on Artificial Intelligence.[159] These were

158 See www.lexisnexis.co.uk.

159 See www.oecd.org/going-digital/ai/principles.

agreed in May 2019, and are designed as standards for the safe development of innovative technologies. The OECD AI Principles are:

- AI should benefit people and the planet by driving inclusive growth, sustainable development and wellbeing.
- AI systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity, and they should include appropriate safeguards, for example, enabling human intervention where necessary, to ensure a fair and just society.
- There should be transparency and responsible disclosure around AI systems to ensure that people understand AI-based outcomes and can challenge them.
- AI systems must function in a robust, secure and safe way throughout their life cycles and potential risks should be continually assessed and managed.
- Organisations and individuals developing, deploying or operating AI systems should be held accountable for their proper functioning in line with the above principles.

The OECD also provided five recommendations to national governments:

1. Facilitate public and private investment in research and development to spur innovation in trustworthy AI.
2. Foster accessible AI ecosystems with digital infrastructure and technologies, and mechanisms to share data and knowledge.
3. Ensure a policy environment that will open the way to deployment of trustworthy AI systems.
4. Empower people with the skills for AI and support workers for a fair transition.
5. Cooperate across borders and sectors to progress on responsible stewardship of trustworthy AI.

In June 2019, the Group of 20 (G20) (of which the UK is a member) adopted human-centred AI Principles that build on and complement the OECD initiatives.[160]

The UK Government was one of the early developers of a national response. The Office for Artificial Intelligence is a joint government unit forming part of the Department for Business, Energy and Industrial Strategy and the Department for Digital, Culture, Media and Sport, and is responsible for overseeing the responsible

160 See www.mofa.go.jp/files/000486596.pdf.

and innovative uptake of AI technologies for the benefit of everyone in the UK.[161] This includes:

- society: making sure AI works for people – ethics, governance and future of work;
- demand and uptake: supporting adoption across sectors, including via 'Missions'; and
- foundations: ensuring the best environments for building and deploying AI – skills, data, investment and leadership.

Additionally, the Centre for Data Ethics and Innovation is a government-level advisory body that considers AI advances.[162] For example, in September 2019, it published three papers addressing particular areas of public concern in AI ethics: deepfakes and audio-visual information; smart speakers and voice assistants; and AI and personal insurance.[163]

Also, in 2019, the UK Government committed approximately £2m to help develop law technology opportunities in order to drive innovation and help the UK legal sector grow.[164]

However, none of this is a regulatory solution. In a book published in 2019 called *AI, Machine Learning and Big Data*,[165] the authors of the chapter on the regulation of AI and Big Data in the UK expressed the following thoughts: 'As the seat of the first industrial revolution, the UK has a long history of designing regulatory solutions to the challenges posed by technological change. However, regulation has often lagged behind – sometimes very far behind – new technology. AI is proving no exception to this historical trend.'

The authors concluded that there was no consensus on whether AI required its own regulator or specific statutory regime, and concluded that there was 'currently no overall coherent approach to the regulatory challenges posed by the rapid development of AI applications'.

In summary, therefore, there is an awareness of the need for oversight of AI development, but no current plans for regulation, either at a national or sector level.

5. What is the role of the national bar organisations or other official professional institutions?

161 See www.gov.uk/government/organisations/office-for-artificial-intelligence/about.

162 See www.gov.uk/government/organisations/centre-for-data-ethics-and-innovation.

163 See www.gov.uk/government/publications/cdei-publishes-its-first-series-of-three-snapshot-papers-ethical-issues-in-ai.

164 See www.gov.uk/government/news/legal-services-and-lawtech-bolstered-with-2-million-of-government-funding.

165 Berkowitz M and Thompson J (Eds), *AI, Machine Learning and Big D* (Global Legal Group Ltd, 26 June 2019).

In the absence of national law or regulation, it is necessary to consider the role of the SRA in regulating the use of AI by those individuals and firms that it authorises and regulates. There is also the need to acknowledge that there are many non-lawyers and unauthorised businesses using AI to provide certain legal services, but these are not subject to SRA oversight.

Solicitors are subject to individual regulation by the SRA, regardless of where or how they practise. All law firms (and all their owners and all employees) that are authorised by the SRA are similarly subject to regulatory oversight. Solicitors who are employed in unauthorised businesses (eg, those employed by commercial and other organisations as in-house counsel) are subject to regulatory oversight but the SRA's regulatory reach does not extend to their employer.

The various principles and rules to which individuals and law firms are subject are contained in the SRA Standards and Regulations.[166] These were drafted on the premise that certain outcomes must be achieved by individuals and firms, and these achievements will demonstrate that clients have received ethical legal services and the public interest purpose of regulation has been met.

The SRA also describes itself as a risk-based regulator, which means that it prioritises concerns that pose the highest risk both to clients and impede the public interest in having trust and confidence in the legal profession. Current risk priorities, as described in the SRA Risk Outlook,[167] include considerations such as information and cybersecurity, integrity and ethics, and standards of service.

In the previously mentioned SRA publication 'Technology and Legal Services', the SRA made its position clear: 'Our regulation is based on the outcomes that firms achieve, not the tools that they use to achieve them'. In other words, the SRA assesses individuals and firms against personal and entity-based duties, and does not impose restrictions on how required behaviours are achieved. The individuals and entities must meet regulatory standards, and the SRA has supervisory and enforcement powers that will be used, if necessary.

This publication highlighted some of the ethical and risk-based issues from the use of AI, including:

- the use of chatbots to provide legal advice may not be able to identify all the individuals that the system is advising on behalf of the solicitor or the law firm and lead to conflicts of interest;
- some documents prepared by AI might involve the system carrying out reserved legal activities with the questions that would trigger in respect of legal restrictions on the provision of these activities, for example, certain conveyancing and probate activities can only be

166 See www.sra.org.uk.

167 See www.sra.org.uk/risk/outlook/risk-outlook-2019-2020.

performed by qualified persons, including solicitors;

- the use of AI technology to process personal data requires the consideration of data protection legislation and the information that must be provided to data subjects; and
- bias in AI systems creating complications in respect of equality, diversity and inclusivity duties imposed on solicitors and others in law firms by the application of the law and also because of regulatory duties in the SRA Standards and Regulations.

This means that while AI, and innovative technologies more widely, can be used, and this use is encouraged by the SRA, the following should be understood:

- Nothing about the use of AI should undermine or compromise an individual's or firm's ethical, regulatory or legal duties.
- Firms must implement effective governance systems to oversee the ethical and legal use of AI.
- The lack of the correct response that is attributed to AI faults will nevertheless be of regulatory interest.
- The risks of using AI must be acknowledged, managed and mitigated. Topical issues include information security and data protection, and the threat of data breaches caused by cyberattacks. Breaches must be considered and, depending on seriousness, possibly reported to both the SRA and the UK's Information Commissioner's Office.

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1. What is the understanding or definition of AI in your jurisdiction?

The definitions of artificial intelligence (AI) proposed within the French legal landscape always refer to human intelligence. The French Data Protection Authority (Commission nationale de l'informatique et des libertés or CNIL) defined AI as 'the science of making machines do what humans would do with a certain intelligence'[168].

In a 2017 annual study, the French Conseil d'Etat defined AI as 'the science whose aim is to make a machine perform tasks that traditionally require human or animal intelligence'.[169] In a report on the open data of court decisions submitted to the Minister of Justice in 2017, AI is defined as 'the set of theories and techniques whose purpose is to make a machine that simulates human intelligence perform tasks'.[170]

The Commission d'enrichissement de la langue française, whose primary purpose is to fill gaps in vocabulary and to designate in French the concepts and realities that appear under foreign names, defined AI as the 'theoretical and practical interdisciplinary field whose purpose is the understanding of mechanisms of cognition and reflection, and their imitation by a hardware and software device, for the purpose of assisting or substituting human activities'.[171] The definitions of this commission are published in the *Official Journal of the French Republic*, and are then of obligatory use in the administrations and institutions of the state and serve as a reference.

However, any comparison between AI and human intelligence, which is a purely anthropocentric approach, seems completely misleading. AI will never be human. On the contrary, some authors point out the risk of AI becoming inhumane,

168 Translated from the definition in French: '*la science qui consiste à faire faire aux machines ce que l'homme ferait moyennant une certaine intelligence*'; CNIL, *How can humans keep the upper hand? Report on the ethical matters raised by algorithms and artificial intelligence* (2017).

169 Translated from the definition in French: '*science dont le but est de faire accomplir par une machine des tâches qui requièrent traditionnellement l'intelligence humaine ou animale*'; Conseil d'Etat Annual Study (2017).

170 Translated from the definition in French: '*l'ensemble des théories et techniques dont le but est de faire accomplir des tâches par une machine qui simule l'intelligence humaine*'; Report on the open data of court decisions submitted to the Minister of Justice in 2017.

171 Translated from the definition in French: '*champ interdisciplinaire théorique et pratique qui a pour objet la compréhension de mécanismes de la cognition et de la réflexion, et leur imitation par un dispositif matériel et logiciel, à des fins d'assistance ou de substitution à des activités humaines*'; published in the *Official Journal of the French Republic*, December 2018

controlling our civil liberties. The questions raised by the relationship between AI and humans, its ability to capture our emotions, anticipate or direct our desires, or decipher parts of our personality or health, raise a growing body of ethical questions, from its autonomy to its status or the establishment of responsibility.

As many digital professionals point out, the term AI was first built – and still is today – on a marketing approach in order to designate the most advanced and ever-changing area of information processing techniques.[172] Some experts even denounce the confusing term, which relates less to a form of real intelligence than to fast, evolved or advanced algorithms.[173]

Furthermore, we must bear in mind that the technologies used by AI in the legal sector are mainly expert systems that can be summarised as 'first AI generation' (eg, contract management software).

The current interest for AI is renewed by the emergence of two technologies: machine learning and natural language processing, which are currently under-used or too disappointing in their application to law, especially among French legal tech.

AI must therefore be understood within a technological ecosystem that feeds on data exploitable by high-performance algorithms, outside of any fantasy or anthropocentric perspective generated by certain propaganda of innovation.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

Legal professionals are beginning to adopt AI tools in their practice, mostly for the execution of repetitive and time-consuming tasks.

AI in law is characterised by the combined use of 'Big Data', machine learning, probability calculations, natural language processing and expert systems (formalisation of the expertise of specialists, notably through hierarchical trees).

The current AI tools available in France predominantly relate to contract and clause review, predictive justice, regulatory monitoring and even loan and business credit application review, specifically for the banking sectors.

The first area in which significant progress in legal AI has been made is contract and clause review.

Contract and clause review

172 See https://pierrelevyblog.com/2018/09/06/lintelligence-artificielle-va-t-elle-prendre-le-pouvoir accessed 6 July 2020.

173 See https://www.lemonde.fr/idees/article/2019/11/24/l-intelligence-artificielle-est-bien-aujourd-hui-une-escroquerie_6020312_3232.html accessed 6 July 2020.

Created in 2015, Softlaw specialises in the audit of M&A contracts to detect questionable clauses. This AI software is structured in a way that it performs knowledge management and fosters the exploitation of legal data, using search algorithms based on keywords, natural language processing and machine learning. It also assists with contracts analysis and regulation compliance.

Hyperlex developed an online contract management and analysis solution, allowing its clients to classify their contracts and find specific clauses or specific data (dates and amounts) with an automatic alert system. Founded in 2017, the company ensures accuracy by using all available AI technologies, including image pattern recognition, and intercedes with the Paris Chamber of Notaries to tag notarial documents automatically.[174]

Legisway, an AI solution to manage legal activities such as contracts, litigation, delegation of authority or even IPR protection, was launched by French AI contract analytics software provider Della in partnership with Wolters Kluwer Legal & Regulatory. Such a solution frees legal professionals from such time-consuming tasks.

As a robotic process automation (RPA) solution, Legal Suite is a complete software aimed at covering various legal tasks such as contract management – through its GaLexy Contract Authoring Tool – and can be adapted to specific areas of law. For example, Legal Suite solutions can help with IP protection by managing patents, or with real estate law by monitoring leases and calculating rents. There is also Legal Suite's GaLexyBot, a computer-based virtual assistant with the capacity of holding a conversation and answering predefined questions in the legal field.

Chatbots such as GaLexyBot are increasing in their popularity at a high rate, as they relieve legal practitioners from being solicited with questions that have already been dealt with, or are considered to have little added value, allowing them to free up time for the most important tasks.

Still in the field of document analysis, the bank JP Morgan launched Contract Intelligence ('COiN') in 2017, a bot that is able to review complex legal contracts faster and more efficiently than lawyers. According to the bank, within seconds the bot can review the same number of contracts as it would have previously taken over 360,000 staff-hours for the lawyers themselves to complete. Sociéte Générale is additionally developing a scoring engine to detect customers who are likely to leave the bank. According to Sociéte Générale, it has quadrupled the number of detected 'likely to leave customers' since its launch.[175]

174 See https://www.lemondedudroit.fr/professions/241-notaire/68509-victoria-intelligence-artificielle-notaires.html accessed 6 July 2020.

175 See https://www.societegenerale.com/en/news/press-release/societe-generale-towards-data-driven-bank accessed 25 March 2022.

Predictive justice and litigation

AI has also been very effective in predictive justice and litigation.

In the field of predictive justice, Predictice and Case Law Analytics are decision support tools for legal professionals and insurers. They provide access to case law via a natural language search engine. An algorithm then calculates the probabilities of resolving a lawsuit, the amount of potential compensation and identifies the most influential legal arguments or facts in previous decisions handed down by the courts.

Another AI tool fit for litigation was launched by Lexbase in 2018. Legalmetrics is a solution aimed at helping decision-making and litigation strategy by using statistical reporting. By mapping French companies' legal dispute, it indicates the main areas of a company's litigation, its position and the invoked arguments. Such mapping allows legal practitioners to reinforce their legal strategy, by estimating chances of success for instance, by knowing the success rate of a claim, the compensation amount or even the duration of litigation. Another use of Legalmetrics can be the mapping of a company's legal life before a potential legal action by practitioners.

Regulatory monitoring

Faced with the burgeoning amount of legislative and regulatory texts in the banking and financial sector, RegMind uses AI to provide automatic regulatory monitoring and follow-up. It informs its users when a new version of a legal text has been released, and compares both versions to highlight the differences. RegMind also analyses regulatory bodies sanctions from both national and European jurisdictions.

Many other legal techs exist, but their degree of technological innovation does not enable them to enter the AI category. Examples include YouSign (electronic signature), Youstice (online dispute resolution) or AirHelp (compensation assistance in case of delayed or cancelled flights).

The 2020 Wolters Kluwer *Future Ready Lawyer Report: Performance Drivers* survey[176] assessed the readiness and resilience in the legal sector by conducting its survey of over 700 legal professionals across the US and several European jurisdictions.

Such survey revealed that:

- 82 per cent of respondents predicted the greater use of technology

176 See https://landing-legisway.wolterskluwer.com/en-whitepaper-future-ready-lawyer-2020?utm_campaign=FR&utm_medium=article&utm_source=lexology accessed 25 March 2022.

will change how they deliver service;

- 63 per cent expected Big Data and predictive analytics to have a significant impact on the sector within three years; and
- 56 per cent expected to increase spending on legal technology solutions over the following three years.

However, it is crucial to highlight that the use of AI tools depends on the data available to train and reinforce AI tools' veracity. Such issues are addressed in question 6 below.

3. If yes, are these AI tools different regarding: (1) independent law firms (2) international law firms (3) in-house counsel, and what are these differences?

There are a large number of software packages claiming to develop AI, but few of them are actually based on the latest machine learning and natural language technologies.

There should be no difference in the use of these tools and software by these different structures, except that international law firms are more likely to use them because of their larger resources and the level of implementation of these tools in the United States.

4. What is the current or planned regulatory approach on AI in general?

It is no coincidence that France is considered to be the leading continental European nation in this field, and Paris is the leading city in continental Europe in terms of attractiveness to AI startups.[177] Indeed, the French Government is eager to make AI attractive, locally and internationally, as demonstrated in President Macron's March 2018 speech, which set out his vision and strategy to make France a leader in AI.[178]

The Villani report, titled *AI for Humanity*[179], laid the foundations for an ambitious French strategy, which has truly been the stimulus for a national discussion on the impact of AI, including the issue of what regulations should be implemented. Other studies quickly followed the Villani report, including the report on AI in relation to the labour market,[180] commissioned by the Ministry of the Interior,

177 See https://www.rolandberger.com/publications/publication_pdf/roland_berger_ai_strategy_for_european_startups.pdf accessed 25 March 2022.

178 See www.elysee.fr/emmanuel-macron/2018/03/29/frances-new-national-strategy-for-artificial-intelligence-speech-of-emmanuel-macron.en accessed 6 July 2020.

179 See www.aiforhumanity.fr/en accessed 6 July 2020.

180 See https://www.vie-publique.fr/sites/default/files/rapport/pdf/184000171.pdf accessed 25 March 2022.

and the report on AI in the service of defence,[181] commissioned by the Ministry of the Army.

Another study was published in February 2019, at the request of the *Direction Générale des Entreprises* (a department of the French public administration). Titled *Artificial Intelligence – State of the Art and Perspectives for France*,[182] it classifies sectors potentially most transformed by the rise of AI, focusing on four: energy and environment, transport and logistics, health, and industry. For each sector, the study assesses the opportunities generated by AI and suggests targeted strategies.

A consensus seems to emerge from various reports and studies tending to conclude that, at this stage in its evolution, there is no pressing need to rethink the current legislative and regulatory framework for AI. Current legal mechanisms and regimes, coupled with contractual flexibility, enable economic actors and consumers to cope with technological change with a satisfactory level of legal safety.

Nevertheless, there are exceptions to this approach, and special regulation may be necessary at a national and regional (European Union (EU)) level, for example, to support data openness, to regulate the activity of platforms or to support the development of specific innovation.

Autonomous vehicles that are currently in the testing phase are leading the government to support the development of testing in an open environment. In March 2018, the President announced that by 2022, a regulatory framework allowing the circulation of autonomous vehicles will be put in place and that an exceptional legal framework on liability for intelligent objects will be necessary.[183] And the publication of a decree on 1 July 2021, makes France the first country to proceed to a simultaneous evolution of its traffic and transport regulations to promote the deployment of automated driving.[184]

Furthermore, the view that the development of AI should be regulated is widely shared because of its significant impact on the everyday life of citizens. The implementation of soft law measures should encourage actors to respect the principles of transparency and fairness of algorithmic processing. Indeed, AI technologies must be explainable if they are to be socially acceptable, and this is why their development cannot be carried out without certain ethical considerations.

At a national level, various reports and studies encourage the development of an initiative among AI stakeholders for the establishment of general guidelines in this area. The CNIL has therefore issued a report following a public debate on the theme 'Algorithms in the Age of AI', which has identified two founding principles for AI at the service of humans. The two principles are:

181 See https://www.vie-publique.fr/sites/default/files/rapport/pdf/194000723.pdf accessed 25 March 2022.

182 See https://www.entreprises.gouv.fr/files/files/en-pratique/etudes-et-statistiques/etudes/2019-02-intelligence-artificielle-etat-de-l-art-et-perspectives.pdf accessed 25 March 2022.

183 See footnote no 11.

184 See https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000043729532 accessed 25 March 2022.

- fairness applied to all sorts of algorithms, and ensuring that the users' interests prevail in any case; and
- continued attention and vigilance in response to the unpredictable nature (inherent in machine learning) and the excessive reliance on technological objects.

These principles begin to take shape through six policy recommendations intended for both public authorities and civil society (companies, citizens, etc):[185]

1. fostering education of all players involved in algorithmic systems (designers, professionals and citizens);
2. making algorithmic systems comprehensible by strengthening existing rights and by rethinking mediation with users;
3. improving algorithmic system design at the service of freedom to prevent the 'black box' effect;
4. creating a national platform in order to audit algorithms;
5. increasing incentives for research on ethical AI and launching a major participative national cause around general interest research projects; and
6. strengthening ethics in companies (eg, by creating ethics committees, by spreading good practices in each sector or by revising code of ethics).

As another illustration of this desire to favour soft law for the time being, Etalab (a government body responsible for coordinating the open data policy for public data) has published a guide for administrations and public organisations that design, develop and operate algorithmic processing.[186]

These guidelines set out four criteria that must be met for a decision based on an algorithm to be considered fair:

1. transparency;
2. intelligibility: the procedure must be described;
3. loyalty: the procedure described must actually be used completely and faithfully; and
4. equal treatment: no individual should be treated more favourably (or unfavourably).

185 See www.cnil.fr/fr/comment-permettre-lhomme-de-garder-la-main-rapport-sur-les-enjeux-ethiques-des-algorithmes-et-de accessed 6 July 2020.

186 See https://guides.etalab.gouv.fr/accueil.html accessed 6 July 2020.

At a regional level, the EU's approach to AI is based on excellence and trust and aims to boost industries while still ensuring fundamental rights.

In this perspective, the European Commission has undertaken to provide a framework for the development of AI across Europe to facilitate the development of a technology that is both efficient and respectful of European laws, principles and values. Therefore, the European Commission established a High-Level Expert Group that published guidelines on trustworthy AI in April 2019, in which seven key requirements were identified:[187]

- human agency and oversight;
- technical robustness and safety;
- privacy and data governance;
- transparency;
- diversity, non-discrimination and fairness;
- societal and environmental wellbeing; and
- accountability.

These guidelines also contain an assessment list for practical use by companies. The High-Level Expert Group revised its guidelines in light of this feedback and finalised this work in June 2020.

In February 2020, the European Commission launched the European Data Strategy, during which it published its White Paper on 'Artificial Intelligence – A European approach to excellence and trust'.[188] It states that a clear European regulatory framework would build trust in AI among consumers and business, and therefore speed up the acceptance of the technology. The European Commission concluded that, in addition to possible adjustments to existing legislation, new legislation specifically on AI may be needed in order to make EU legal framework fit for current and anticipated technological and commercial developments.

The European Commission expanded its vision by developing an AI strategy suggesting new rules and actions to make the EU the global hub for trustworthy AI. Such a strategy includes a 'Communication on Fostering a European Approach to Artificial Intelligence',[189] the updated 'Coordinated Plan with Member States'[190] and a proposal for an AI Regulation laying down harmonised rules, called 'Artificial Intelligence Act',[191] more details of which are given in question 5 below.

187 See https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=60419 accessed 6 July 2020.

188 See https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf accessed 6 July 2020.

189 See https://digital-strategy.ec.europa.eu/news-redirect/709089 accessed 25 March 2022.

190 See https://digital-strategy.ec.europa.eu/news-redirect/709091 accessed 25 March 2022.

191 See https://digital-strategy.ec.europa.eu/news-redirect/709090 accessed 25 March 2022.

A genuine European AI ecosystem is thus taking shape, with the French strategy being in line from the outset with the strategy pursued on the scale of continental Europe.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Although regulations are emerging which cover the general use of AI or machine learning systems, there are few regulations currently in force which apply to the use of AI. The French Data Protection Act[192] and the EU's General Data Protection Regulation (GDPR)[193] both apply to the use of AI in a general way to the extent that it processes personal data.

The French Data Protection Act formally controls algorithmic decisions by a principle of prohibition. It provides that no court decision or any decision of any kind producing legal effects in respect of a person or significantly affecting them may be taken on the basis of the automated processing of personal data intended to foresee or evaluate certain personal aspects relating to the data subject.[194] The GDPR also provides for the prohibition of automated individual decisions.[195]

However, there are some fairly broad exceptions to this principle in French law. The Digital Republic Act No 2016-1321 of 7 October 2016 authorised the administration to make decisions regarding a person on the basis of an algorithm on the condition that it includes an explicit mention of the interested party information.[196] In addition, the source code of the algorithms used by the administration has been included among the documents that any citizen has the right to request access to.[197]

Another exception exists in the area of intelligence agencies. Act No 2015-912 of 24 July 2015 allows the services concerned to use an algorithm aimed at detecting low signals of a terrorist threat by the massive processing of connection data without the need for personal identification.[198]

More recently, the 2018-2022 Programming and Reform Law for Justice[199] broadened the availability of court decisions to the public in electronic form. This

192 Law No 78-17 of 6 January 1978 on Information Technology, Data Files and Civil Liberties (also known as 'French Data Protection Act') as updated further to the EU Regulation No. 2016/679, known as the General Data Protection Regulation (GDPR), with the enactment of Law No 2018-493 of 20 June 2018, on the protection of personal data, and the Order No 2018-1125 of 12 December 2018, adopted pursuant to Art 32 of Law No 2018-493. The French Data Protection Act has been further updated with the adoption of Decree No 2019-536.

193 EU Regulation No 2016/679, known as the General Data Protection Regulation (GDPR).

194 Art 120 of the Act No 78-17 of 6 January 1978 on Information Technology, Data Files and Civil Liberties.

195 Art 22 of the GDPR.

196 Art L 311-3-1 of the French *code des relations entre le public et l'administration*.

197 Art L 300-2 of the French *code des relations entre le public et l'administration*.

198 Art L 851-3 of the French *code de la sécurité intérieure*.

199 See https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000038261631 accessed 28 March 2022.

modification was specified by a decree of 29 June 2020.[200] To date, approximately 20,000 administrative decisions and 15,000 judicial decisions are published online each year. The objective of the open data of court decisions is to promote access to law and to reinforce the transparency of justice with the publication online by 2025 of 300,000 administrative decisions and three million judicial decisions each year.

Although there is no current French legislation specifically applicable to the general use of AI or machine learning systems, such regulation is currently being instilled by the EU, before being transposed into French law.

For instance, the Data Governance Act[201] and the Data Act[202] respectively adopted on 25 November 2020, and 23 February 2022, are meant to remove data-access barriers, such as trust in data sharing, or technical obstacles to data reuse, while preserving incentives to invest in data generation.

The EU also proposed its 'Artificial Intelligence Act'[203] on 21 April 2021. The first regional AI law, it allocates AI applications according to three risk categories:

- AI applications creating unacceptable risk are forbidden;
- high-risk AI applications are subject to particular legal requirements; and
- AI applications that are not considered to create an unacceptable or high risk are left unregulated for now.

The proposed AI Act is consistent with the EU's regulatory approach, such as its Industrial Strategy, as the new Act would introduce and implement the EU Strategy for Data, by enshrining the principle of free flow of data within the internal market for instance, introduced by Regulation (EU) 2018/1807 on a framework for the free flow of non-personal data in the EU.[204]

6. Is free data access an issue in relation with AI?

Having a maximum amount of data is essential to train AI tools. However, what some would call a 'data war' is currently taking place and slowing down the development and implementation of AI tools in the French legal landscape.

A typical example of this data war is the *ROSS* case, an AI software launched by IBM in 2017 and capable of researching case law faster than an associate lawyer.

The so-called 'world's first artificial intelligent lawyer' was designed to understand legal language, provide answers to legal issues and formulate hypothesis. However,

200 See https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000042055251?r=FSiRIBv4yG accessed 28 March 2022.

201 See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020PC0767 accessed 25 March 2022.

202 See https://ec.europa.eu/newsroom/dae/redirection/document/83521 accessed 25 March 2022.

203 See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0206 accessed 25 March 2022.

204 See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018R1807 accessed 25 March 2022.

ROSS Intelligence was forced to shut down its operations as a lawsuit was filed by Thomson Reuters in May 2020, claimed theft of proprietary data, crippling the ROSS company's ability to attract new investors and leaving it without sufficient funds to run its operations. ROSS founders announced that its services would end by 31 January 2021.[205]

In France, this data war is still raging, as the innovative legal search engine Doctrine.fr, which specialised in the aggregation of court decisions for legal practitioners, is facing an important lawsuit, being accused of having used unfair methods to obtain a very extensive database of case law.

The French National Bar (CNB) and the Paris Bar Association have filed a complaint against the startup, claiming that lawyers' personal data was manipulated without their knowledge. A complaint was also filed before the French Data Protection Authority (CNIL) regarding the misuse of legal practitioners' personal information.

Finally, the emergence of AI tools is also subject to the development of startups. However, the Covid-19 pandemic has dealt a negative blow to their expansion. As an illustration, the French Government registered 103 new startups in 2019 against 18 in 2020.

In the specific area of law, the development of AI is limited by the lack of openly usable data. The reason why AI could have a massive impact for lawyers is that unlike AI, no human can read millions of pages per second. No human can accumulate a memory equivalent to that of an AI. But the AI must have something to read or analyse, and this is not a condition that can be easily met in France.

The first explanation is due to the French legal tradition concerning how court decisions are made. In fact, unlike their Anglo-Saxon counterparts and their dissenting opinions, French judges do not reflect in their decisions the debates and positions taken by each of the judges. The decisions of French judges, particularly those of the French Court of Cassation and the Conseil d'Etat, are consequently shorter and sometimes only implicitly indicate the real motivations behind the decision.

However, that limit may well be lifted in the future. The new methods of editing the decisions of the Constitutional Court, the Conseil d'Etat and, more recently, the French Court of Cassation now include an enriched motivation for the most important decisions (eg, reversal of jurisprudence), which includes the precedents, so the decision is placed in a common pattern. According to some authors, this could well allow algorithms to improve how they read and analyse these decisions. Finally, French legal publishers who have the *doctrine* (the data that links court decisions together and allows them to be understood) do not yet include machine learning in their work. But they are working on it and will soon be able to provide additional data to the AI.

205 See https://blog.rossintelligence.com/post/announcement accessed 25 March 2022.

The second explanation for the lack of openly usable data is related to material limitations. First, the data must be available in a format that is usable for AI. However, many court decisions are not delivered in a format that the AI can read (paper format, poor quality scan, etc). Second, the conciliation of open data of court decisions with privacy requires these decisions to be anonymised. However, the justice system does not have sufficient human and technical means to anonymise thousands of court decisions.

It seems that although free access to data is a prerequisite for AI to emerge and develop steadily, French and EU regulatory bodies have understood such correlation by passing regulations in order to remove data-access barriers, as explained above in question 5.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

To the best of the authors' knowledge, no decision has been made to date regarding the use of AI.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

No regulations specific to the use of AI in services rendered by lawyers appear to be in place at this time. The discussion is at a more global level.

However, questions are being raised about the possibility of in future seeing robots handing down court decisions. This particularly concerns alternative dispute resolution methods that have recently been deployed in electronic form because – once online – the resolution method could be based on self-learning algorithms that could gradually result in a form of artificial justice.

In this regard, the French Government launched an experiment in the justice field, by issuing a decree, allowing the Minister of Justice to implement, for a two-year period, the creation of an automated processing of personal data for the purpose of developing an algorithm, called DataJust.

DataJust was created to allow the retrospective and prospective evaluation of public policies in matters of civil and administrative liability, the elaboration of an indicative reference system for personal injury compensation, the information of the parties and the assistance in the evaluation of the amount of compensation to which the victims may be entitled in order to encourage an amicable settlement

of disputes, as well as the information or documentation of judges called upon to rule on personal injury compensation claims.

However, this experimentation was badly perceived by French legal professionals, who highlighted the algorithm's limits of the Ministry of Justice, which was considered to be biased because it was incomplete, due to the absence of first instance decisions for example.

The project was sued in court by lawyers and associations defending the rights of people with disabilities. According to lawyer Hervé Gerbi, the algorithm of DataJust will be 'the implementation of a scale that will standardise the decisions of judges' and 'penalise the victims', before adding 'a cut finger is in general two per cent of incapacity. But for a professional pianist, his whole career is at stake. The algorithm of DataJust will deny this particularity. By wanting to make justice equal, it will make it unfair. This algorithm will penalise victims and standardise their compensation'.[206]

Due to its complexity, DataJust was abandoned last January, two months before its end. But although this first official experimentation in France regarding the application of AI into the legal sector was not considered satisfactory, it is important to note that AI technology, while growing, is still in its infancy stage. But above all, DataJust shows the current state of the majority opinion of legal and justice professionals regarding the implementation of AI in their practices.

Finally, the first European Ethical Charter on the use of AI in judicial systems and their environment was adopted by the European Commission for the Efficiency of Justice (CEPEJ) of the Council of Europe.[207] Providing a framework to guide legal and justice professionals, this text is the very first setting forth ethical principles relating to the use of AI in judicial systems such as:

- 'Principle of respect of fundamental rights: ensuring that the design and implementation of artificial intelligence tools and services are compatible with fundamental rights;
- Principle of non-discrimination: specifically preventing the development or intensification of any discrimination between individuals or groups of individuals;
- Principle of quality and security: with regard to the processing of judicial decisions and data, using certified sources and intangible data with models conceived in a multi-disciplinary manner, in a secure technological environment;

206 See https://www.leparisien.fr/faits-divers/un-avocat-attaque-datajust-le-logiciel-qui-va-transformer-les-juges-en-robot-21-05-2020-8321205.php Interview of M. Hervé GERBI, accessed 25 March 2022.

207 See https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c accessed 25 March 2022.

- Principle of transparency, impartiality and fairness: making data processing methods accessible and understandable, authorising external audits;

- Principle "under user control": precluding a prescriptive approach and ensuring that users are informed actors and in control of their choices'[208].

The CEPEJ Charter also includes an in-depth 40-page study on the use of AI in judicial systems, especially regarding AI applications processing judicial decisions and data.

9. What is the role of the national bar organisations or other official professional institutions?

The French National Bar (CNB) plays a role at several levels in the understanding of AI by legal actors.

The CNB primarily contributes to the debate by organising conferences on the subject of AI and formulating proposals.

Above all, it plays an advocacy role for the legal profession regarding the risks of AI use. In particular, the CNB has adopted a position on open data for court decisions: in November 2018, the general assembly of the CNB formulated some proposals aimed at ensuring equal access to court decisions between lawyers and magistrates, but also equal access for lawyers to court decisions in order to prevent unfair competition between large and small law firms.

Moreover, the Premier President of the Court of Cassation and the President of the CNB signed a joint declaration on 25 March 2018.[209] It contains the following proposals to:

- give the Court of Cassation the responsibility of collecting and circulating the decisions of the judiciary and making available to the public a single database of judicial decisions of the judiciary;

- involve the Court of Cassation, the first-degree and appeals jurisdictions, and the CNB in the regulation and control of the use of the database of court decisions; and

- create a public entity in charge of the regulation and control of the algorithms used for the processing of the database of court decisions and the reuse of the information contained therein.

In 2019, the Court of Cassation, in collaboration with the Ministry of Justice, hosted two data scientists whose mission was to identify data to be

208 *Ibid*, page 8

209 Revue pratique de la prospective et de l'innovation n°2, October 2019, p 10.

pseudonymised in court decisions before making them publicly available. Today, the project is being continued within the Court of Cassation. It has demonstrated the effectiveness of machine learning on pseudonymisation and opens the way for other data science projects (eg, the search for discrepancies in jurisprudence). The Court of Cassation appears to be now at the forefront at EU level of the automated pseudonymisation of court decisions.[210]

Moreover, the CNB is part of the Council of Bars and Law Societies of Europe (CCBE), an EU association gathering bar associations of 32 European countries, which published its considerations on the legal aspects of AI in 2020.[211] Recently, the CCBE also published a position paper on the AI Act[212], in which legal professionals advocated for specific provisions on the use of AI in the particular field of justice and pled that 'the proposal should require that not only the final decision itself but also the entire decision-making process should remain a human-driven activity'.[213]

210 See https://fichiers.eig-forever.org/posters/eig3/openjustice.pdf accessed 6 July 2020.

211 See https://www.ccbe.eu/fileadmin/speciality_distribution/public/documents/IT_LAW/ITL_Guides_recommendations/EN_ITL_20200220_CCBE-considerations-on-the-Legal-Aspects-of-AI.pdf accessed 25 March 2022.

212 See https://www.ccbe.eu/fileadmin/speciality_distribution/public/documents/IT_LAW/ITL_Position_papers/EN_ITL_20211008_CCBE-position-paper-on-the-AIA.pdf accessed 25 March 2022.

213 *Ibid*, p 7.

Germany

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1. What is the understanding or definition of AI in your jurisdiction?

The term artificial intelligence (AI) (*Künstliche Intelligenz* or KI) is used to refer to software that is able to detect and solve complex problems. In contrast to 'non-intelligent systems', an AI can open up solutions for itself and develop solutions that do not have to be taught in advance. It is able to learn by itself through a large amount of data (reasoning and machine learning).

Sometimes a distinction is made between 'weak' and 'strong' AI. Strong AI assumes that AI systems have the same or even greater intellectual abilities than humans. Weak AI concentrates on the solution of concrete application problems based on scientific methods. This is referred to as 'intelligent' systems that are capable of self-optimisation.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

There are many possible applications of AI to provide legal services. In addition to tools for the administration of law firms, AI supports, in particular, activities such as the processing and evaluation of legal documents, judgments and contracts, and the platform-based verification of claims.

Some companies in Germany are currently working on software that will automatically analyse judgments. The software is intended to make statements for the future based on judgments already made. How could a court decide? What could the reasoning be based on? Does judge 'A' possibly have special features in his/her decisions or does judge 'B' always decide in a particularly strict or lenient manner? It could also be used to examine when a decision is particularly often or particularly rarely overturned by a higher court. One of these tools, 'law stats', independently evaluates revisions using quantitative risk analysis. It is therefore less a legal service than machine learning from statistical data. However, it improves lawyers' work by setting them free from repetitive work.

Another example of an AI tool was developed by the Berlin startup 'Leverton'. The tool from Leverton is used for fully automated contract analysis. Its automated abstraction process eliminates error-prone, manual data entry while also helping to identify and eliminate data discrepancies. The software extracts key data from

the document and links each extracted data point to the source information. This simplifies the work of lawyers considerably. For example, a 100-page rental agreement can be checked in seconds, and data can be extracted, such as termination modalities of the rental parties. The startup offers solutions for compliance, invoice reconciliation, lease abstraction, legal AI for due diligence, regulatory compliance and tax compliance. According to its own statements, Leverton's software is used by companies such as Deutsche Bank and EnBW, among others.

3. If yes, are these AI tools different regarding • independent law firms; • international law firms; and • in-house counsel; and what are these differences?

Most law firms currently use software to manage their cases or to search online databases. Most common are the online database 'Juris', which mainly contains judgments, and 'BeckOnline', which offers access to legal literature on a large scale and also includes publicised judgments. However, these databases or software cannot be considered AI. In any case, these databases are commonly used by in-house counsel as well as law firms – regardless of size. The same is to be expected for AI applications.

In the future, the use of AI will be useful for independent law firms, international law firms and in-house counsel. With AI, legal work can be done faster and easier; time-consuming research or analysis of judgments is no longer necessary. For this reason, the use of AI makes sense for both smaller and larger law firms. International law firms can save costs because they need fewer employees or can use their staff differently. Smaller law firms can take on larger projects with the help of AI.

There are therefore few differences in the use of AI tools between international law firms, independent law firms and in-house counsels.

4. What is the current or planned regulatory approach on AI in general?

Lawyers

Legal services are strictly regulated in Germany. Software that not only collects statistical data but also provides legal services itself must therefore comply with specific legal conditions. In principle, the German law for legal services (Rechtsdienstleistungsgesetz or RDG) does not allow the fully automated provision of legal services; however, to provide legal services, using AI is possible.

According to current case law, debt collection companies can also use software solutions to check legal issues, as long as they are related to the claim (for more information, see question 7).

Using AI just to assist lawyers is in accordance with German law, as long as the legal service is provided by the lawyer him/herself. However, lawyers can save themselves research work, which can slow down their professional activity.

For a legally secure use, it is always important that the legal service is still provided by the lawyer him/herself and that the AI only acts as an 'assistant' to the lawyer and not as the lawyer him/herself.

Courts

It is clear that, according to the German constitution, a judge may not be replaced by AI. However, it is already less clear whether the judge should be allowed to use AI in his/her decision-making. The use of AI seems conceivable, especially in lower courts with less complex facts and legal issues. However, this is only a theoretical problem and only discussed in the literature as there is still a lack of functional software

General

In November 2018, the Federal Government of Germany launched its AI strategy. The strategy presents the progress made in terms of AI in Germany, the goals to achieve in the future and a concrete plan of policy actions to realise them. The range of policy initiatives outlined in the strategy aims to achieve the following goals:

- increasing and consolidating Germany's future competitiveness by making Germany and Europe a leading centre in AI;
- guaranteeing the responsible development and deployment of AI that serves the good of society; and
- integrating AI in society in ethical, legal, cultural and institutional terms in the context of a broad societal dialogue and active political measures.

For the implementation of the strategy, the Federal Government of Germany intends to provide around €3bn for the period 2019–2025.

Starting with the AI strategy, the Federal Government of Germany launched initiatives to tackle specific issues with AI, for example, information management, data ownership, free flow of data and standardisation.

Reforms of the legislation target many domains, including codifying the rights of the labour force, consolidating competitiveness of the industry and developing rules with respect to data usage and protection. Among the initiatives are:

- the launch of a Commission on Competition Law 4.0, serving as a political platform for a debate on how to further develop competition and copyright law;
- the launch of the Opportunities for Qualifications Act, a legislation providing reskilling opportunities and support to employees whose jobs are at risk due to AI technologies;
- the adoption of the Skilled Labour Immigration Act, legislation to facilitate the migration of skilled workers to Germany;
- the formation of a Workforce Data Protection Act to codify data protection regulation and privacy (ie, safeguard the control on personal data), compliant with EU law, especially the General Data Protection Regulation (GDPR);
- review and, if necessary, adaptation of the legislation concerning the use of non-personal data as well as copyright; and
- implementation of the Cybersecurity Directive: this Directive, properly known as the Directive on security of network and information systems (NIS), requires Member States to adopt a national cybersecurity strategy.

The Federal Government of Germany advocates using an 'ethics by, in and for design' approach throughout all the development stages and use of AI-based applications. It highly recommends engaging in dialogue with other leading regions to reach an agreement on joint guidelines and ethical standards on AI. Hence, the strategy foresees work on a legal and ethical framework aligned with European guidelines and taking into account the recommendations of the national Data Ethics Commission:

- guidelines for developing and using AI systems in compliance with data protection rules;
- ethical requirements to ensure transparency, verifiability and predictability of AI systems (eg, ethical guidelines for self-driving cars); and
- initiative to enforce a better coordination of ethical values at European level.

Besides ethical guidelines and legislative reforms, standards form an essential aspect of an adequate and effective regulatory framework. Standards shall act as

a seal of excellence in ensuring high-quality products and services. With respect to standardisation, the Federal Government of Germany proposes following support initiatives:

- funding for the development of data standards and formats to encourage European Union-wide collaborations;
- funding for experts, particularly from small and medium-sized enterprises (SMEs) and startups in order to support their participation in international standardisation processes; and
- develop a roadmap on AI standardisation to review existing standards regarding whether they are AI-compatible.

None of this has yet led to legislation.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Currently, AI is not yet explicitly regulated in many areas of law. There are special regulations on the liability of AI in road traffic law. In 2017, the legislator amended the Road Traffic Act to explicitly allow autonomous driving. The owner of the vehicle, as well as the driver of the vehicle, are both liable if the AI causes damage.

In other fields of law, in the absence of special statutory regulations, only the general statutory regulations developed for human liability apply. That means that general statutory regulations on contracts and torts apply to liabilities arising from losses, with all their features and differences, in terms of liability allocation, burden of proof and statutes of limitations, arising therefrom.

The question of whether the producer of software can also be held liable for the misconduct of an AI remains unresolved. In Germany, a distinction is made between contractual and tortious liability. In the contractual area, the manufacturer can largely avoid liability risks. As a result, a company using AI often has to bear the cost of damages itself and has no recourse to liability. In tort law, liability is hardly more favourable for companies that want to use AI. The manufacturer is only liable if it has violated its duty of safety on the road or knew that it was selling defective software.

Since the use of AI usually requires a large amount of data, data protection is also often an important area to be regulated. In Europe, the GDPR exists for this purpose, which does not contain any specific regulations on the use of AI, but compliance with it is nevertheless an important prerequisite.

The Data Protection Supervisory Authorities of the German Federal and State Governments (the 'DPA') specified the data protection requirements for AI. In particular, their restrictive interpretation of the principals of purpose restriction and data minimisation will

pose significant challenges for companies. The adopted Hambach Declaration on Artificial Intelligence (Hambacher Erklärung zur Künstlichen Intelligenz) stipulates seven data protection requirements, which must already be complied with today based on current data protection laws:

1. AI must not turn human beings into objects;

2. AI may only be used for constitutionally legitimate purposes and may not abrogate the requirement of purpose limitation;

3. AI must be transparent, comprehensible and explainable;

4. AI must avoid discrimination;

5. the principle of data minimisation applies to AI; and

6. AI needs responsibility.

The DPA concludes with arguing that AI development requires regulation.

6. Is free data access an issue in relation with AI?

The strict requirements of the European GDPR must be taken into account when processing personal data. This is especially true when the trend is towards 'legal outsourcing' and data processing does not remain with the processor.

Furthermore, free data access is essential for AI. An AI is superior to humans in that it can read and understand thousands of documents full of judgments or legal literature in a second. It can thus recognise and analyse key points of important judgments better and faster than any human. But this only works if the AI can train with a lot of data beforehand (machine learning).

With respect to legal information, in Germany, court decisions are not always made publicly available on the internet. Although there are always rulings of the highest courts (Federal Constitutional Court and Federal Supreme Court) that are accessible on the internet, there is rarely free access to rulings of lower courts. All in all, Germany lacks a freely accessible database containing all judgments. Although there are fee-based databases, such as 'Juris', these are limited. For an AI to work most efficiently, it would need access to a central database containing all judgments and all legal literature.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

The German courts have, in some cases, dealt with the use of legal tech and AI. Predominantly, the question was raised regarding whether legal services may be provided by automated software at all.

In Germany, the provision of legal services is regulated by the RDG. This law stipulates that legal services may only be provided by lawyers. Collection agencies are also regulated by the RDG. However, they are generally only allowed to collect receivables for their customers but not provide legal advice.

The German Federal Supreme Court recently dealt with the case of wenigermiete.de ('lessrent.de' in English). Wenigermiete.de is a website that enables tenants of apartments to calculate whether the rent they pay is reasonable or higher than the German law allows (statutory rent cap/rental price brake).

The advantage for the tenant is that it can calculate directly on the website whether it pays too much, and if so, by how much. In addition, the tenant only has to pay wenigermiete.de a success commission, so no risks arise for the tenant.

The company that operates the website wenigermiete.de, however, is not a law firm but only a collection agency.

The German Federal Supreme Court ruled on the question of whether the provision of such services by legal tech companies constitutes an illegal legal service, that is, whether the activity is so advisory that it should have been performed by a lawyer rather than by a software plus collection agency. The court decided that, even in the provision of mere collection services, a comprehensive and full consideration of the legal situation is possible as long as it is necessary for the collection agency to enforce the claim. According to the Federal Supreme Court, the purpose of the RDG is to promote and permit the use of new forms and technologies. An automated provision of legal services is also covered by this, as long as it remains within the scope of the RDG.

The judgment opens up many new possibilities for the use of AI for legal services. In particular, it allows enforcement in cases where consumers want to assert a right but are not prepared to bear the costs and risks. A contingency fee cannot be agreed upon in Germany with a lawyer; however, it is possible with a collection agency (legal tech companies like Wenigermiete.de).

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

As already explained in question 7, the Federal Court of Justice decided that the RDG should also aim to use new technologies for the provision of legal services. This would enable, for example, debt collection companies to provide legal services with the help of an AI that had previously only been provided by lawyers.

However, the core area of legal services is still left to lawyers. It is therefore always necessary that legal services, which include legal representation in court and so on, are provided by lawyers.

The ruling of the Federal Court of Justice, however, opens up the possibility of providing simpler legal services not by lawyers but by other companies, such as debt collection agencies.

9. What is the role of the national bar organisations or other official professional institutions?

The bar association will have the primary task of critically monitoring progress. The main purpose is to protect the high quality and reliability of legal services. In addition, the bar association will also try to protect the legal profession in the best possible way and not allow competition from unqualified or defective AI.

For example, the bar association has already taken legal action against providers who wanted to offer 'legal documents in lawyers' quality' through 'SmartLaw software'. This service using 'SmartLaw software' was prohibited by the court. The provider advertised that the software could generate adapted contracts for little money, which were of the same quality as a contract prepared by a lawyer. However, this generator did not achieve the high quality of legal advice.

This demonstrates the main task of the bar association with regard to AI will be to review new developments and ensure the high quality of human legal advice.

Ghana

Lom Nuku Ahlijah, Integri Solicitors & Advocates, Accra – Ghana

1. What is the understanding or definition of AI in your jurisdiction?

Artificial Intelligence (AI) is still an evolving subject in Africa in general and in our jurisdiction in particular, and as such no statutory definition has been provided to describe activities that ought to fall within the scope of artificial intelligence. Generally, however, AI involves the use of computer systems to equip machines with human-like qualities such as visual perception, the ability to reason and speech recognition, among others, for the performance of tasks that would usually require human intelligence. The United Nations Educational, Scientific and Cultural Organisation's (Unesco) survey[214] on artificial intelligence needs in Africa defines AI as the combination of technologies that enable machines capable of imitating certain functionalities of human intelligence, including such features as perception, learning, reasoning, problem solving, language interaction, and even producing creative work.

The researchers surveyed several jurisdictions in Africa including Ghana and the findings indicate that there is little to no policy, legislative or regulatory position in any of the countries surveyed.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services? If yes, are these AI tools different regarding: (1) independent law firms; (2) international law firms; and (3) in-house counsel; and what are these differences?

Most law firms in Ghana are independent law firms. Only a handful can be characterised as international law firms. There are also firms with international affiliations. There are no known AI tools that are in use in the legal services sector.

A few of the big law firms in Ghana make use of law firm management software systems that help with the management of case files, managing client details, billing and other accounting functions, among others. The use of such tools is, however, not widespread as most law firms still use manual systems to perform the aforementioned functions. In-house counsel in most legal departments of companies will typically not have access to any systems purposely for their legal work except where the specific company employs AI tools in the company's operations.

214 Unesco, *Artificial Intelligence Needs Assessment Survey in Africa* (2021).

3. What is the current or planned regulatory approach on AI in general?

There is no known legal or regulatory framework around AI in Ghana. However, there are some regulations that cover aspects of the scope of AI. In the banking sector, for instance, there is the use of AI tools in electronic money transactions. The regulatory framework governing such use is mainly for the particular industry, and not AI as a developing concern for the jurisdiction. However, there is no regulatory framework governing the use of AI in these sectors.

4. Which are the current or planned regulations on the general use of AI or machine learning systems?

There is no regulatory regime on the general use of AI in the jurisdiction. However, considering the pervasive nature of AI in almost every industry, there is bound to be the need to make rules and regulations governing the use of AI in the very near future to forestall situations where there is damage but no known remedy provided for such damages.

In the Unesco report, the government of Ghana indicated its clear interest in developing policy and regulatory framework for AI in Ghana. This is particularly important in Ghanai given that in 2019 Google established its first AI office in Africa there. However, to date no concrete steps have been taken by the government or the legislature to regulate the AI space.

Data protection and privacy

AI technology largely thrives on and requires a lot of data. In Ghana, there is a constitutional right to the protection of a person's privacy.[215] A person's data cannot therefore be taken and used for any purpose without that person's consent. In this regard, the Ghanaian courts are inclined to protect a person's privacy and punish the use of data without express consent.[216] The development of AI technology will therefore thrive when there is a way to gather and use data without infringing on the right to people's privacy in Ghana.

Intellectual property law

The Copyright Act 2005 of Ghana (Act 690),[217] which is the main legislation that governs intellectual property in Ghana, recognises and protects computer

215 Constitution of Ghana 1992, Art 18(1).

216 *Raphael Cubagee v Michael Yeboah Asare, K Gyasi Company Ltd, Assembly of God Church* (2018) JELR 68856 (SC).

217 Copyright Act 2005 (Act 690).

programs and software.[218] Computer programs and software are usually developed to work on the basis of AI technology. At the same time, the Act punishes any attempt to circumvent a technological protection measure applied by a holder of intellectual property right. Even though there are no express AI terms used in this piece of legislation, it makes way for AI to thrive while protecting its users thereof.

5. Is free data access an issue in relation with AI?

Companies that make use of AI tools will typically build a database of their client's personal details to aid with the personalisation of the service rendered to the client. The provisions contained in the Data Protection Act 2012 place some obligations on companies and people regarding the use of personal information gathered from clients. For instance, Section 18 of the Data Protection Act 2012 ('Act 843') provides: 'A person who processes personal data shall ensure that the personal data is processed, without infringing the privacy rights of the data subject in a lawful manner and in reasonable manner.'[219]

In addition, Section 20 of Act 843 requires that, save for certain stated exceptions, the consent of every data subject is obtained before the processing of any personal data in respect of the data subject. The Act further provides that the data subject is allowed to object to the use of their personal data and where a data subject objects to the processing of personal data, the person who processes the personal data shall stop the processing of the personal data.[220]

What this means is that firms must comply with the provisions of the Data Protection Act in their gathering and use of clients' personal data in AI systems.

As stated, the effective development and use of AI systems in all aspects of the economy will depend on access to accurate personal data. The lack of access to accurate personal data of most of the Ghanaian population is one factor that is likely to negatively affect AI development and use. This is because the Ghanaian government does not have a working database that accurately captures personal biodata of the population. This deficiency is already impeding the efforts of the police and other security services in solving crimes.

However, in 2019, with the introduction of the National Identification Card,[221] popularly known as the Ghana card, the government commenced efforts to build a database to capture biodata. When registering for the card people give biometric, residential, educational and employment data, among others. Measures were put in place to ensure that most Ghanaians are registered on this database. All Ghanaians and non-Ghanaians who are at least 15 are required to register to be issued with a Ghana card. The card will eventually be required for use in all transactions.

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218 *Ibid*, s 1.

219 Data Protection Act 2012 (Act 843) s 18.

220 *Ibid*, s 20(2) and (3).

221 National Identification Authority Act 2006 (Act 707) s 1 and 2; National Identity Register Act 2008 (Act 750) s 3.

The database built from the Ghana card registration can effectively be tapped into for use in AI systems. There is still a need, however, for the development of a legislative regime to regulate the use of information gathered from this and other databases in the use of AI systems.

6. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

There are no court decisions on the provision of legal services using AI, nor are there known decisions concerning other sectors that are directly applicable to the use of AI in the provision of legal services. The AI regime is not fully developed in Ghana and there is scant writing if any on the use of AI. Ghana is still very rooted in manual operations in the provision of legal services. It is mostly presumed that the profession is steeped in and preserved in antiquity. AI therefore has made few in-roads in the provision of the legal services.

A recent case in front of the Ghanaian Supreme Court, *Raphael Cubagee v Michael Yeboah Asare, K Gyasi Company Ltd, Assembly Of God Church*,[222] gives an indication of the position the court is likely to take if it is called upon to pronounce on the use of AI systems in the provision of legal services. The decision in the *Cubagee* case primarily reinforced an individual's constitutionally guaranteed right to privacy. The principle espoused in that case was essentially to discourage the use of a person's personal information or data of any form without first obtaining the person's consent. Consequently, any attempt to use personal information in AI systems for the provision of legal services will require the requisite consent to be obtained.

7. What is the current status – planned, discussed or implemented - of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

The legal profession in Ghana is regulated by the Legal Profession Act 1960 (Act 32) as well as the Legal Profession (Professional Conduct and Etiquette) Rules 2020. Act 32, which was passed in 1960, contains no provisions on the use of AI. Even though the Legal Profession Rules contain no provisions on the use of AI systems in the conduct of the legal profession, they contain provisions that reiterate the lawyer's duty of confidentiality to the client. Thus, notwithstanding the absence of express provisions on the use of AI systems in the legislation governing the legal profession, practitioners ought to be guided by the duty of confidentiality in the use of clients' data in AI systems.

222 See n 3 above.

8. What is the role of the national bar organisations or other official professional institutions?

The Ghana Bar Association has made no input in the development and use of AI systems in the practice of the legal profession. It is, however, envisaged that the association will willingly join the discourse when discussions for the development of AI legislation commence.

The UN Global Pulse, the Ministry of Communications for Ghana and the Data Protection Agency, with support from Germany, hosted a session and a subsequent workshop on developing an ethical AI framework in African economies during the 1st African Region Data Protection and Privacy International Conference. There was a general consensus that there is a need to develop and implement an ethical and regulatory framework. The Ministry declared a need for laws as well as a policy to unlock the value of data to maximise the use of AI while limiting possible dangers.

Hong Kong (Special Administrative Region)

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1. What is the understanding or definition of AI in your jurisdiction?

The Hong Kong Special Administrative Region ('Hong Kong') enjoys a special one-country, two-systems arrangement with the People's Republic of China. Hong Kong is a common law jurisdiction, where the law is formed not only by statute but also case law. The rule of law serves as a keystone to this legal system. There is a robust and independent judiciary, and cases from other common law jurisdictions are considered persuasive, though not binding. Former foreign judges of the judiciary in common law jurisdictions outside of Hong Kong are also invited to sit at the Court of Final Appeal.

There is no statutory definition of artificial intelligence (AI) under Hong Kong laws. Despite not having an official statutory definition or specific legislation in relation to AI, there is a generally accepted understanding that AI means emerging technological programs/robots that use, inter alia, algorithms, Big Data learning and machine learning to perform tasks traditionally performed by humans. Types of AI tools include natural language processing, programmed data collection and data analytics, and chatbots.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

In Hong Kong legal practice, it is common to use external service providers, such as companies that have adopted natural language processing and machine learning programs, to conduct translation work, and or companies that provide electronic discovery and due diligence services, to complete these tasks more efficiently.

Many law firms also have contract template generating programs and document management systems that allow for the categorisation of documents, which assist with data segregation requirements under certain regulations. Some law firms use chatbots to facilitate initial instruction and provide preliminary answers as to black letter law. The Law Society of Hong Kong has also been exploring the use of chatbots for its enquiry handling operations.[223]

As a result of the general adjournment period of the courts due to Covid-19, in the Guidance Note for Remote Hearings for Civil Business in the High Court published

223 See http://hk-lawyer.org/content/chatbots accessed 6 July 2020.

by the Hong Kong Judiciary on 2 April 2020,[224] and on 8 June 2020,[225] the court has also endorsed alternative ways, other than physical court appearance, to continue court proceedings. The guidelines apply on a 'technology neutral basis' to the possible use of various types of electronic means in phases, and it may be possible for further and more enhanced technological tools, such as AI, to be used in the future.

On 1 October 2021, the Court Proceedings (Electronic Technology) Ordinance (Cap 638) came into force. It provides a legislative framework to enable court-related documents to be processed in electronic form. The judiciary has been developing an integrated court case management system across all levels of court by phases for handling various court processes, such as the filing and service of documents and payments through electronic means. Pilot projects for the system have taken place over the past year for mock district court civil proceedings for personal injuries actions, tax claims and civil actions, and will be organised for summons courts of the magistrates courts.

The Judiciary Administration aims to introduce a bill relating to remote hearings for criminal cases in late 2022.

An online dispute resolution platform, electronic Business Related Arbitration & Mediation system (eBRAM),[226] which makes use of AI tools, has been established and is due to be open for use by lawyers or parties in person for certain cases. [227]

The Hong Kong International Arbitration Centre, a leading dispute resolution organisation situated in Hong Kong, enables arbitration, mediation, adjudication and domain name dispute resolution, in addition to offering users integrated virtual hearing services.[228]

3. If yes, are these AI tools different regarding: (1) independent law firms (2) international law firms (3) in-house counsel, and what are these differences?

Rolling out AI tools is quite costly. Not only are there the expenses of engaging subcontractors to prepare the programs or preparing them in-house, time and resources also have to be devoted to monitoring, maintaining and troubleshooting the systems. Training personnel is also necessary to ensure the AI tools are used properly.

That is why it is more common for international law firms in Hong Kong to have more advanced or a greater variety of AI tools (eg, chatbot frequently asked

224 See www.judiciary.hk/doc/en/court_services_facilities/guidance_note_for_remote_hearings_phase1_20200402.pdf accessed 6 July 2020.

225 See https://www.judiciary.hk/doc/en/court_services_facilities/guidance_note_for_remote_hearings_phase2_20200608.pdf accessed 16 September 2020.

226 See http://ebram.org accessed 6 July 2020.

227 See Question 9 for further details.

228 See www.hkiac.org/content/virtual-hearings accessed 6 July 2020.

questions (FAQs), contract template generating tools, e-discovery, e-due diligence and document management platforms) compared with independent/local law firms.

In-house counsel may have even fewer resources than law firms as they serve more of a back-office function and may have less budget to spend. However, they have the option of engaging external counsel to assist with their work, and can make use of independent/local law firms and international law firms depending on the task, and thereby can benefit from the AI tools that those firms use.

4. What is the current or planned regulatory approach on AI in general?

There is no current Hong Kong legislation which specifically focuses on AI. Many of the Ordinances in existence are also technology neutral (eg, the Personal Data (Privacy) Ordinance (Cap 486) (the 'PDPO')).

However, there have been several guidelines issued by regulators whose organisations are applicable to AI. For example, the Hong Kong Monetary Authority, the Securities and Futures Commission and the Privacy Commissioner of the Personal Data (PCPD) have all issued guidelines that relate to AI or the internet of things. Regulators can consider whether the circumstances relating to a breach of guidelines would show evidence of a breach of relevant ordinances.

The PCPD has been advocating the adoption of data ethics to balance out the data economy and technological developments with the need to protect personal data. The 2018 *Ethical Accountability Framework for Hong Kong, China* ('Ethical Accountability Framework') report, prepared for the Office of the PCPD, also discusses AI tools and how AI is changing the scene for data processing activities. In the report, the PCPD noted that the regulatory regime may not adequately address data protection risks arising from advanced data processing activities, which is why it considered the concept of data ethics as the way forward.

In August 2021, the PCPD published its *Guidance on the Ethical Development and Use of Artificial Intelligence* report, which further expands on some of the concepts discussed in the Ethical Accountability Framework report.[229]

The General Data Protection Regulation (GDPR) has extraterritorial jurisdiction, and is applicable for Hong Kong businesses under certain circumstances. Where it applies, the provisions relating to, inter alia, 'automated processing' and so on apply in Hong Kong and should be complied with if Hong Kong companies or firms utilise such technologies and/or AI tools.

The Personal Information Protection Law (PIPL) was enacted by the People's Republic of China on 1 November 2021 and has extra-territorial effect. Hong

229 See https://www.pcpd.org.hk/english/resources_centre/publications/files/guidance_ethical_e.pdf accessed 31 March 2022.

Kong entities which handle the personal information of natural persons within mainland China may be bound by the PIPL. The PIPL has provisions on automated decision-making and requires transparency, fairness and no unreasonable price discrimination against individuals when data processes use automated decision-making processes.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

The PCPD co-sponsored the Declaration on Ethics and Data Protection, which was passed in October 2018 at the 40th International Conference on Data Protection and Privacy Commissioners held in Brussels. The declaration provided for six guiding principles to preserve human rights in the development of AI. The principles are as follows:

1. fairness;
2. continued attention and vigilance;
3. transparency and intelligibility;
4. ethics by design;
5. empowerment of every individual; and
6. reducing and mitigating biases or discrimination.[230]

In October 2020, the newly named Global Privacy Assembly adopted the Resolution on Accountability in the Development and Use of AI. It recommends the adoption of 12 accountability measures for organisations which develop and use AI, to facilitate trust building with stakeholders.[231]

The PCPD was also involved in preparing 'Data Stewardship Accountability, Data Impact Assessments and Oversight Models – Detailed Support for an Ethical Accountability Framework' guidance. Organisations can consider the guidance on how to act ethically and apply equitable principles 'particularly in advanced data processing activities, such as AI and machine learning, and the application of knowledge to enable data-driver innovation to reach its full potential'.[232] Organisations are to understand and evaluate how their activities affect the parties positively or negatively, act as data stewards rather than data custodians, and consider whether the outcomes of their AI and machine learning processing activities are legal, fair and just. Although this guidance is not a regulation or

230 See http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf accessed 31 March 2022.

231 See https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf accessed 31 March 2022.

232 See www.pcpd.org.hk/misc/files/Ethical_Accountability_Framework_Detailed_Support.pdf accessed 6 July 2020.

requires mandatory compliance, the document serves as a framework for law firms and other businesses to consider how their data is collected and utilised in light of the technology they may use. The approach taken by the PCPD here is to promote awareness of the concept of data stewardship and accountability where AI and machine learning is used, and to promote organisational policies and change of culture and conduct to achieve this. In the 2021 Guidance on the Ethical Development and Use of Artificial Intelligence, the PCPD also provided a self-assessment checklist to facilitate organisations to determinate whether the practices recommended in that Guidance have been adopted in the organisation's development and use of AI.

6. Is free data access an issue in relation with AI?

For AI tools to run smoothly, it is important to have a large and/or accurate set of data inputted so that machine learning can be conducted properly. Data bias or inaccurate data will greatly affect the function of the AI tools.

There is a large amount of data that relates to personal information. Under the PDPO, data is to be collected (to the extent necessary and not excessively) and used only for the purposes for which it is collected (pursuant to the consent provided). If the purpose for using the personal data in a data analytics or machine learning scenario was not communicated to the data subject (ie, the person who the personal information pertains to), that may amount to a breach of the law.

Therefore, a balance has to be struck between the use and development of AI tools using these types of data, and the protection of personal data and privacy. Please see also the data stewardship and data ethics principles that were discussed in questions 4 and 5.

Furthermore, Hong Kong law firms and companies need to comply with the GDPR and PIPL where they, inter alia, collect, hold or process personal data of residents in those jurisdictions. Provisions relating to the personal information being collected (using various methods, including AI tools such as 'automated decision-making') and its use will also be subject to similar considerations outlined above in relation to the PDPO.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

To the author's best knowledge, there are no published court cases relating to the provision of legal services using AI. However, Hong Kong also looks to other common law cases as reference, and this serves as persuasive, but not binding, authority.

In the Court of First Instance defamation case *Dr Yeung Sau Shing Albert v Google Inc (No 2) (2014)* HKEC 1782, a question arose as to whether Google had in fact published the alleged defamatory content or if it was a passive facilitator of information by way of its artificial intelligence based auto-complete and search engine systems. Though the Court considered that it is arguable that through the automated algorithmic processes (which collects and collates information from search requests and web content to present them to users as auto-complete and predictive keyword searches), Google would not be a mere passive facilitator and may be considered a publisher, the Court left the discussion open for the Court of Appeal on that point due to the differing foreign case law and the significance and inter-lay of this technology and defamation law.

There have been cases were the Courts have sanctioned the use of alternative technological means to further court cases.

A recent Hong Kong decision in *Cyberworks Audio Video Technology Ltd (In Compulsory Liquidation) v Mei Ah (HK) Co Ltd* [2020] HKCFI 347, *Cyberworks Audio Video Technology Ltd (In Compulsory Liquidation) v Silver Kent Technology Ltd* [2020] HKCFI 347 and *Cyberworks Audio Video Technology Ltd (In Compulsory Liquidation) v Silver Kent Technology Ltd* [2020] HKCFI 347 (the '*Cyberworks* case') has explored the use of technology to conduct court hearings. Traditionally, attendance at Hong Kong courts required the physical attendance of the parties and/or their lawyers. With the general court closure (except those of an urgent and essential nature, and certain criminal matters) commencing 29 January 2020 and continuing at the time of the hearing of that case caused by Covid-19 (the 'General Adjournment Period' or GAP), many proceedings had to be adjourned. The *Cyberworks* case, which was ruled on 21 February 2020 (decision published on 28 February 2020), resulted in an unprecedented confirmation of the legality of telephone hearings relating to High Court proceedings under the Hong Kong legal framework. This ruling demonstrates that the court will consider the enhanced use of technology tools to move forward to enable justice to be done.

Subsequent to the *Cyberworks* case, on 2 April 2020, the Hong Kong Judiciary (the 'Judiciary') also published a Guidance Note for Remote Hearings for Civil Business in the High Court to provide an alternative way to continue court proceedings rather than physically appearing in court. This was the first of its kind. The Judiciary noted that, at the current time, trials are not suitable for remote hearings. The guidelines apply on a 'technology neutral basis' to the possible use of various types of electronic means in phases.

The first phase of remote hearings by video conferencing facilities (VCF) in civil cases in the Court of Appeal and the Court of First Instance of the High Court commenced during the GAP. As at 8 April 2020, two cases were heard, with one taking place at the Court of Appeal and the other at the Court of First Instance. On 8 June 2020, the Hong Kong Judiciary published a Guidance Note

for remote hearings for civil business in the Civil Courts.[233] This note is to be read in conjunction with the Guidance Notice issued on 2 April 2020, and sets out the second phase developments for alternative modes of court hearing disposal. It provides for expanded video-conferencing facilities and telephone remote hearing practice to be applicable to the Court of Appeal of the High Court, the Court of First Instance of the High Court, the Competition Tribunal, the District Court and the Family Court.

In the second phase, which started on 15 June 2020, remote hearings conducted by VCF and telephone in civil cases were extended to the following civil courts:

1. the Court of Appeal of the High Court;

2. the Court of First Instance of the High Court (Judges and Masters);

3. the Competition Tribunal;

4. the District Court (Judges and Masters);

5. the Family Court.

The third phase was implemented on 2 January 2021, under which remote hearings by the use of VCF and telephone in civil cases were extended to the Labour Tribunal and Small Claims Tribunal.[234]

In February 2022, the Judiciary also issued a note on the use of VCF for remote hearings for civil business.[235]

More VCF hearings are expected in the near future. Other hearings will be dealt with paper disposal where suitable.[236]

In January 2022, the Judiciary has additionally introduced an e-Appointment service, which allows unrepresented litigants or applicants to make online appointments through the new dedicated web links for specified services of the registries and office. This e-Appointment service is applicable for various services in the Probate Registry, the Family Court Registry and the Lands Tribunal Registry, Appeals Registry at the Clerk of Court's Office of the High Court, the High Court Registry and the Integrated Mediation Office.[237]

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233 See https://www.judiciary.hk/doc/en/court_services_facilities/guidance_note_for_remote_hearings_phase2_20200608.pdf accessed 16 September 2020.

234 See https://www.judiciary.hk/doc/en/court_services_facilities/guidance_note_for_remote_hearings_phase3_20201217.pdf accessed 25 March 2022.

235 See https://www.judiciary.hk/doc/en/court_services_facilities/technical_specifications_of_vcf_of_the_judiciary_20220302.pdf accessed 25 March 2022.

236 See https://www.judiciary.hk/doc/en/court_services_facilities/press_release_20220304_annex.pdf accessed 25 March 2022.

237 See https://www.info.gov.hk/gia/general/202201/04/P2022010400178.htm accessed 25 March 2022.

In the case of Hong Kong Court of First Instance of *Hwang Joon Sang And Future Cell Plus Co, Ltd v Golden Electronics Inc, Worldbest Global Supplier Inc, Harmony Electronics Inc, Quantum Electronics Inc, Jin Miao International Limited, Vivien Chung Ying-Yin, Magic Electronics Inc, BC Century Techology Limited, Chen Nien Fang, Chen Yi Kuei, China Dynamic Limited, Chiu Wei Fen, Chou Lin Chiao, Glory Dynamic Limited, Hsu Wei Lun, Hu Hong Bin, Imperial Dragon Limited, Lin Chih Cheng, Liu Mei Ting, Magic Crystal Limited, Niu Hsiu Chen, Su Chao Ming, Su Kuang Hong, Su Pei I, Tsai Pao Tsai, Wang Chao Cheng, Wang Hui Min, and Chou Pei Fen* (2020) HKCFI 1084, the Hong Kong Courts allowed for a novel mode of ordinary service of court documents. In that case, the Court held that any document, not being an originating process or one requiring personal service, may be served by providing access to an online data room with authorisation by the court. This decision can be made by courts pursuant to Order 65(1)(d) of the Rules of the High Court, where the court can, on a case by case basis, consider alternative methods of service in various situations.

In *Zhuhai Gotech Intelligent Technology Co Ltd v Persons Unknown* (HCZZ 10/2020), the Court of First Instance allowed a plaintiff to serve proceedings and related documents (including an interlocutory injunction order), out of jurisdiction by way of substituted service, via Facebook messaging.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

Hong Kong lawyers are to abide by the Hong Kong Solicitors' Guide to Professional Conduct. Although solicitors may use information communication technology available at the time of the use, Chapter 1.07 of the Hong Kong Solicitors' Guide sets out that, even with such use, solicitors are still responsible and bound by the duties relating to professional conduct.[238] In other words, lawyers can use AI tools where they see fit (eg, document management tools, electronic discovery and template generating tools), but they must ensure that they comply with the Hong Kong Solicitors' Guide to Professional Conduct, practice directions and applicable laws governing their legal practice.

9. What is the role of the national bar organisations or other official professional institutions?

For several years now, the Hong Kong Government has been promoting 'LawTech', which is the concept of law and technology. Its aim is to make use of technology in providing legal services to the public.

238 *The Hong Kong Solicitors' Guide to Professional Conduct* (The Law Society of Hong Kong, 2020) (vol 1).

On 8 April 2020, as part of the measures to ease the economic and commercial challenges posed by Covid-19, the Hong Kong Government announced the establishment of the LawTech Fund and the Covid-19 Online Dispute Resolution (ODR) Scheme.

The LawTech Fund aims to assist small and medium-sized law firms (where there are five or fewer solicitors) and some small barristers' chambers in procuring and upgrading information technology systems (eg, hardware, servers, computer equipment, software, databases, networks, cloud-based services and other information technological tools), and funding their staff for LawTech training courses. A joint committee established by the Law Society of Hong Kong and the Hong Kong Bar Association will process and assess the applications for the fund, as well as arrange the disbursement of the funding. Eligible firms and chambers can receive a reimbursement of up to HK$50,000. The fund is envisaged to benefit over 60 per cent of law firms and over 50 per cent of barristers' chambers in Hong Kong (ie, a total of around 700 firms/chambers).[239]

The ORD Scheme was established in anticipation of the disputes arising from or relating to Covid-19.[240] It will use the dispute resolution platform eBRAM,[241] which makes use of AI tools. eBRAM allows for various dispute resolution services, such as negotiation, mediation and arbitration, to be conducted online. Lawyers can participate in the process along with clients who cannot physically meet face-to-face for those proceedings/sessions, and allows for continuity of lawyer dispute resolution services despite the effects of Covid-19 and/or travel-related delays, and enables a more speedy and cost-effective way to resolve disputes.

The Hong Kong Legal Cloud services was launched on 1 March 2022. It serves to provide a secure and affordable data storage service for the local legal and dispute resolution professionals, to harness modern technology and enhance the service capability of the legal profession. The Department of Justice also set up the Hong Kong Legal Cloud Fund, administered by the Asian Academy of International Law on a pro bono basis, to offer eligible local legal and dispute resolution professionals free subscription to the Hong Kong Legal Cloud services for up to three years.

The Law Society of Hong Kong also arranges and hosts many conferences open to both local and international participants, and for the past several years, such conferences have contained at least one session on AI and legal practice. One of the more prominent conferences was the ABC to Building a Smart Belt and Road: Law and Artificial Intelligence, Blockchain and Cloud, which took place on 28 September 2018, with sessions focusing on AI tools.[242] Such conferences

239 See www.info.gov.hk/gia/general/202004/27/P2020042700514.htm accessed 6 July 2020.

240 See www.news.gov.hk/eng/2020/04/20200413/20200413_110404_476.html accessed 6 July 2020.

241 See www.doj.gov.hk/eng/public/blog/20190807_blog1.html accessed 6 July 2020.

242 See www.hklawsoc-beltandroad.com/en/index accessed 6 July 2020.

explore the various opportunities, risks and liabilities that are involved in AI and legal practice.

Risk management courses relating to, inter alia, cybersecurity, data privacy and the cloud, are also provided by the Hong Kong Academy of Law, which is a subsidiary entity under the Law Society of Hong Kong. These courses aim to educate practitioners as to the risks and ways to manage those risks where technologies are used in firms, and attendees are awarded continual professional education points. To renew a solicitors' practicing certificate in Hong Kong, generally, 15 points is required on an annual basis.

Hackathons have also been organised by the Law Society of Hong King on using AI to solve problems and providing better access to justice. The themes for the hackathons conducted so far have been to encourage cross-disciplinary innovation and collaboration in relation to various legal issues that people may encounter on a day-to-day basis.[243]

243 See www.hk-lawyer.org/content/belt-road-justice-challenge-cultivating-innovation-hackathon accessed 6 July 2020.

India

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1. What is the understanding or definition of AI in your jurisdiction?

The concept of artificial intelligence (AI) and the way it is understood in India is fluid, and still expanding. According to Invest India, India's official agency for investment promotion and facilitation, AI is an attempt to automate a process that would otherwise require human intelligence.[244] The Ministry of Commerce and Industry, Government of India, constituted a Task Force on Artificial Intelligence (the 'Commerce Ministry Report').[245] The said report relies on the work of Professor John McCarthy to define the term AI, and defines it as the science and engineering of making intelligent machines, with intelligence being the computational part of the ability to achieve goals in the world. AI uses computers to understand human intelligence.

Niti Aayog, the policy 'think tank' of the Government of India, providing directional and policy inputs, also explains AI in the discussion paper titled 'National Strategy for Artificial Intelligence' (the 'Discussion Paper').[246] According to the Discussion Paper, AI refers to the ability to perform cognitive tasks, like thinking, perceiving, learning, problem solving and decision-making; a technology that could mimic human intelligence.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

Resistance in the legal fraternity

While AI has successfully managed to infiltrate most businesses, such as healthcare, education and agriculture, the use of AI in the legal sector is in a fairly nascent stage. India has been the hub of innovation and while the acquisition of technology has not been a challenge, Indian law firms have definitely shown reluctance in making AI part of their daily routine.

The lack of general awareness in lawyers about what they can achieve through AI has been a challenge in India. Further, language continues to be a major impediment

244 See www.investindia.gov.in/team-india-blogs/growing-interest-artificial-intelligence-india accessed 6 July 2020.

245 See https://dipp.gov.in/sites/default/files/Report_of_Task_Force_on_ArtificialIntelligence_20March2018_2.pdf accessed 6 July 2020.

246 See https://niti.gov.in/writereaddata/files/document_publication/NationalStrategy-for-AI-Discussion-Paper.pdf accessed 6 July 2020.

for these AI solutions, which have failed to penetrate the litigation circle. In a country like India, there are many languages spoken. In fact, while the medium of communication in upper courts, such as the High Courts and Supreme Court, is English, vernacular languages continue to be commonly used in lower courts. The lawyers practicing in those courts are proficient in their vernacular language and thus, any tool that they may need will have to be in the language they are comfortable in.

Despite resistance, there is a segment of law firms (and individual lawyers) in India that continues to experiment in the AI space to see what may increase efficiency and allow lawyers to reduce the amount of their workload.

Availability and penetration of AI tools in the Indian legal market

Kira, which was developed by a Canada-based technology company, Kira Systems, has now been introduced to India. Kira uses AI to identify, analyse, and extract clauses and other information from contracts and other types of legal documents. There are machine learning models for a range of requirements across practice areas. The tool is also capable of identifying different clauses across a large volume of legal contracts, with a high degree of accuracy.

For litigators, there are AI solutions available in the market to accomplish tasks such as managing and tracking cases listed in courts. Companies such as 'LegalMind'[247] offer 'AI powered search'. The company also offers solutions such as 'Litigation Analytics' and 'Brief Analyser'. As the name suggests, Litigation Analytics enables users to analyse trends and patterns across judgments and tries to 'predict' the behaviour of courts, judges and so on. It is a strategy building tool that is now being used in the market. Further, 'Brief Analyser' helps lawyers to summarise judgments without missing out on any details. The tool 'understands' the important elements of a judgment, such as arguments, facts and issues raised, and provides the user with a comprehensive summary. There is no formal data to confirm the extent and reach of these tools.

Compliance

The compliance function is one area where the use of automation and AI has increased. Companies are trying to acquire tools that will keep their costs low. When it comes to compliance, the proposed AI tool needs to ascertain: (1) what needs to be complied with; (2) what process is involved; and (3) whether the process is robust. With the Government of India moving towards digitisation, where most filings may be done online, these compliance tools are certainly reducing the workload of compliance professionals. 'Simpliance' is one such tool

247 See https://legalmind.tech accessed 6 July 2020.

that can help a company to set up a compliance framework vis-à-vis labour laws across more than 120 laws and 8,700 compliances using an algorithm.

AI-enabled forensic tools for litigation

Companies, particularly those rendering financial services, are reducing dependency on humans, to a great extent, and are relying on AI to detect issues such as acquirer fraud, reducing credit risk and delinquency, fighting financial crime, and preventing waste and abuse of resources. These AI tools are often used as a preventive measure and are now being used to garner evidence in contentious matters.

3. If yes, are these AI tools different regarding
- independent law firms;
- international law firms; and
- in-house counsel;
- and what are these differences?

As mentioned above, there are different types of AI-based tools available on the market, offering a wide range of support. As such, these tools are either supporting lawyers in day-to-day management, or directly offering services to customers. While there are specific products made for dispute resolution and corporate practice, there is barely any difference in the kind of AI tools available for independent law firms, international law firms and in-house counsel.

4. What is the current or planned regulatory approach on AI in general?

Role of Niti Aayog in defining the approach

The Government of India is working towards evolving an AI-friendly regime. While there is no regulatory approach clearly laid out, the Niti Aayog Discussion Paper sets the tone for the adoption and use of AI in different verticals. The Discussion Paper identifies the large incremental value that AI is capable of adding to a wide range of sectors. The Discussion Paper focuses on a few sectors that could benefit the most from AI; these sectors include healthcare, agriculture, education, infrastructure/smart city, and smart mobility and transport.

The Discussion Paper does highlight the barriers that have to be addressed before the use of AI may be scaled. These challenges include: (1) lack of expertise in research and application of AI; (2) absence of intelligent data (for inputs); (3) high resource cost and low awareness for adoption of AI; (4) privacy and security-

related issues; and (v) absence of a collaborative approach in connection with the adoption and application of AI.[248]

Niti Aayog also released an approach paper to set up India's first AI-specific cloud computing infrastructure called the AI Research, Analytics and Knowledge Assimilation Platform ('AIRAWAT'). The Government of India intends to manage challenges in relation to the lack of access to computing resources via AIRAWAT. This is another attempt by the Government of India to demonstrate its inclination to scale the AI ecosystem in India.

Regulators' approach to AI

Various regulators in India have also recognised the value of the use of AI and robotics to reduce inefficiency. In 2017, the Reserve Bank of India (RBI) (the central bank responsible for the regulation of foreign exchange, currency, payment systems etc), released the report *Working Group on Fintech and Digital Banking*. The report highlighted the need to identify what machines can do better than humans and vice versa, and develop a complementary role and responsibilities for each.[249] RBI has consistently promoted the use of technology and, in fact, in 2019, released the report *Enabling Framework for Regulatory Sandbox*. This report opened the gates for several technology players to live test their new products or services in a controlled or test regulatory environment. Similar sandboxes have been introduced by other regulators, such as the Insurance Regulatory and Development Authority of India, the insurance regulator and Security Exchange Board of India (SEBI), the securities market watchdog. SEBI has also put in place a project to augment its use of AI in pattern recognition and other use cases to track offences like insider trading. This certainly is an encouraging trend.

Ministries approach to AI

The Commerce Ministry report acknowledged that AI is a game changer and an important factor for economic development, and also pointed out that there is a need to develop a framework for smooth functioning. Apart from being used in the commercial sector, AI has also seen extensive use in the defence sector. DAKSH (equipment for explosive device identification and handling), NETRA (unmanned aerial vehicles for surveillance), CSROV (a battery-operated tracked vehicle with a telescopic arm) and UXOR (bomb handling robot) are some of the applications of AI in the defence sector.[250]

248 See https://niti.gov.in/sites/default/files/2019-01/NationalStrategy-for-AI-Discussion-Paper.pdf accessed 6 July 2020.

249 See https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/WGFR68AA1890D7334D8F8F72CC2399A27F4A.PDF accessed 6 July 2020.

250 See https://drdo.gov.in/robotics accessed 6 July 2020.

The Ministry of Electronics and IT has constituted several committees for developing a framework for AI.[251] It has been proposed that the Open National Artificial Intelligence Resource Platform will become the hub for knowledge integration and dissemination in AI. Liability in the case of damage done by an AI tool is another question that is being analysed. The increasing use and reliance on AI by ministries is a strong indicator that India may adopt an AI-friendly regulatory framework.

Standardisation

The Bureau of Indian Standards, a body formed to formulate, recognise and promote standardisation across sectors and products, has released a Standards National Action Plan and has identified AI as one of the key standardisation areas.

Private parties

Technology giants, such as Google and Walmart, continue to acquire startups for their AI tools. The support from big companies has certainly resulted in several startups coming up with AI products that can be used to solve various real-life issues across sectors.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Current sets of regulations

There are certain laws that may apply to AI tools, but there is a need to develop a more comprehensive set of laws. AI applications are not expressly protected under any form of statutorily recognised intellectual property. While one may argue that AI may be protected under the copyright regime, or the patent law, the Indian enforcement authorities are not regularly faced with such questions, and thus enforcing rights in relation to AI tools may be a challenge. Questions, such as whether collusion through AI tools are anti-competitive or not, are matters that regulators need to evaluate. The level of sophistication and technological expertise required to analyse questions like this is not something that Indian regulators are dealing with on a regular basis. While there is a positive trend and increasing acceptance of AI, the laws are not sufficient to deal with several challenges that come with AI.

251 See https://meity.gov.in/artificial-intelligence-committees-reports accessed 6 July 2020.

India's privacy laws will undergo a sea change. The current set of laws only regulates limited types of data. However, there is a bill pending in Parliament that may change the scope of data protection and privacy laws completely. In its current form, the bill does not discuss the interplay of AI and privacy.

Commerce Ministry report

The Commerce Ministry report identifying the need for AI also pinpoints the issues that would need to be regulated. The said report observed that it is important to ensure that AI systems have explainable behaviour and are engineered for safety and security. There should be clear legal provisions put in place to identify liability in the case of non-compliance or violation. The said report leaves the question of the rights and responsibilities of autonomous AI entities open. Lastly, the said report also calls for setting up appropriate standards to be put in place for AI-enabled entities.

6. Is free data access an issue in relation with AI?

Using, processing or generally dealing in personal data is regulated in India. Users of AI tools would need to ensure that the extant privacy laws are followed at all times. Accordingly, what may or may not be shared and used is a function of whether the provider of information consents to such use or disclosure.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

Not yet; there are no court decisions on the above premise.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

The use of AI in the legal profession is not regulated in India.

9. What is the role of the national bar organisations or other official professional institutions?

The Indian Bar Association is not currently involved in the promotion of AI in the legal profession.

Italy

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1. What is the understanding or definition of AI in your jurisdiction?

By using the wording artificial intelligence (AI) (*intelligenza artificiale*), reference is made to software and hardware systems capable of achieving complex goals, operating in physical or virtual dimensions, perceiving the surrounding environment, acquiring – understanding – inferred data through knowledge continuously acquired (reasoning and machine learning), adopting decisions and choosing solutions in given or extemporary situations. AI is defined as a 'dual' technology, as it can apply to both civilian and military scopes.[252]

AI is a technology ecosystem based on highly performing calculations, mobile broadband technologies, nanotechnologies and the so-called internet of things (IoT). In a few years, the development of these sectors will allow a more synergic interaction among them, mainly due to blockchain, cloud computing and mostly, the operativity of 5G frequency bands.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

We are at the beginning of this new trend; however, there is already some AI software used by lawyers in their practices. They are mostly meant to simplify lawyers' work, setting them free from repetitive work, which can slow down their professional activity.

This software can assist lawyers in statutory regulations and court case searches, as well as with the revision of contracts.

As an example, ROSS can help lawyers in research. It is software based on AI that aims to simplify the work of lawyers. ROSS is capable of simplifying the search of statutory regulations and court cases. It is based on 'Watson', IBM software capable of understanding human language, and can be used by law firms to simplify and render faster any legal searching activity, which young lawyers usually perform.[253]

Besides performing searches on single cases, ROSS is capable of developing logical connections and proposing ad hoc solutions to help lawyers to interpret a

252 See www.mise.gov.it/index.php/it/intelligenza-artificiale-call accessed 6 July 2020.

253 See https://rossintelligence.com accessed 6 July 2020.

specific case and to act accordingly. Several Italian law firms, particularly in Milan, have begun to use it.

A second example of AI software for law firms is Kira, a software expert on contracts.[254] Kira is devoted to cutting down time spent on analysing hundreds of pages of contracts. Kira automatically finds, extracts and reviews significant contract information in minutes.

This software is meant to enhance visibility in contracts, making it easy to get a quick picture of contract terms. Kira rapidly responds to a change in law, anti-bribery review or force majeure event. According to its provider, Kira can jump between summary text and the original scanned page.

Kira analyses contracts, extracts their most relevant sections and highlights their material provisions. Kira is also capable of analysing documents based on the inclusion or absence of specific provisions, and can extend search and analysis to contracts drafted in different languages.

An interesting bot used for legal data privacy protection is that commercialised by LT42.[255] This Italian software offers the possibility for companies to be appointed as data protection officers (DPO) to comply with the European Union General Data Protection Regulation Directive No 679/2016 (GDPR) on privacy. LT42 offers support that can be provided both through its online platform and through a customised consulting service, as well as constant monitoring to comply with the norms established by the EU. A team of experts retains control of the software on privacy, legal issues and technology.

Contract Intelligence (COIN), is another bot able to substitute 360,000 annual working hours performed by lawyers. So far, it has been tested by JP Morgan.[256] COIN runs on a machine learning system that is powered by a private cloud network that the bank uses. Apart from shortening the time it takes to review documents, COIN has also helped JP Morgan to decrease its number of loan-servicing mistakes. According to the program's designers, these mistakes stemmed from human error in interpreting 12,000 new wholesale contracts every year.

Another example is 'DoNotPay', AI software meant to appeal parking tickets, cancel any service or subscription, and sue in small claim courts, for example, for delayed or cancelled flights. It's a mobile phone app and the company running this business claims that 'the DoNotPay app is the home of the world's first robot lawyer. Fight corporations, beat bureaucracy and sue anyone at the press of a button'.[257]

254 See https://kirasystems.com accessed 6 July 2020.

255 See www.lt42.it accessed 6 July 2020.

256 See www.icertis.com/resource/what-is-contract-intelligence accessed 6 July 2020.

257 See https://donotpay.com accessed 6 July 2020.

In Italy, AI software called 'Flightright' provided by a German company called Flightright GmbH is frequently used by travellers.[258] It is an air passenger claims management software that offers assistance and advisory services. The software offers passengers assistance and advisory services to obtain compensation from airlines when a flight is delayed or there is a failure. Flightright's free checks tell customers whether they are entitled to compensation if they simply type in the flight details – whether there was a delay, cancellation, rebooking or a missed connection.

3. If yes, are these AI tools different regarding • independent law firms; • international law firms; and • in-house counsel; and what are these differences?

Based on the above, there is a wide variety of AI-based software already available on the market. Some applications are used to support lawyers in their work, whereas others directly offer legal services to their customers. Most of this software and applications have been developed outside Italy, and they are meant for an international clientele, so independent law firms, law firms operating in several countries and in-house counsel can all avail of their services.

4. What is the current or planned regulatory approach on AI in general?

AI is deemed, by both the Italian Government and the EU, to be one of the key technologies for a new industrial revolution guided through the transition to digital. Italy has undertaken to implement a national strategy on AI within the framework of the European Coordinated Plan on Artificial Intelligence, which constitutes the domestic contribution to synergic action among EU Member States.[259]

In April 2021 the European Commission unveiled a proposal for a new Artificial Intelligence Act (AI Act). The Regulation proposal sets out harmonised rules on AI and introduces a technology-neutral definition of AI systems into EU law. The Commission also proposes to adopt different sets of rules tailored to a risk-based approach with four levels of risk:

Unacceptable risk AI: harmful uses of AI that contravene EU values (such as social scoring by governments) will be banned because of the unacceptable risk they create;

- High-risk AI: a number of AI systems (listed in an Annex to the Regulation) that are creating adverse impact on people's safety, or their fundamental rights, are considered to be high-risk. In order to ensure trust and consistent high level of protection of safety and

258 See www.flightright.com accessed 6 July 2020.

259 See https://ia.italia.it/assets/whitepaper.pdf accessed 6 July 2020.

fundamental rights, a range of mandatory requirements (including a conformity assessment) would apply to all high-risk systems;

- Limited risk AI: some AI systems will be subject to a limited set of obligations (eg, transparency);
- Minimal risk AI: all other AI systems can be developed and used within the EU with no additional legal obligations than existing legislation.

The proposal is now being discussed by the co-legislators, the European Parliament and the European Council, where negotiations have started to find a common position between Member States.

The domestic strategy comprises nine targets and seven sectors.

The national strategy for AI comprises an initial chapter, called Vision and Targets, and a series of brief chapters explaining the nine targets the strategy is aiming at:

1. improving investment, public and private, on AI and related technologies;
2. enhancing R&D in the field of AI;
3. supporting the adoption of digital technologies based on AI;
4. increasing educational efforts at different levels to enable AI to support the workforce;
5. exploiting the data economy, real fuel for AI, particularly in the public sector;
6. consolidating the legal and ethical frameworks that regulate AI development;
7. promoting awareness and trust of AI among citizens;
8. improving the public administration sector and making public policies more efficient; and
9. favouring European and international cooperation for accountable and inclusive AI.

The following seven key sectors have been given the utmost priority in the allocation of resources: manufacturing industry, agrofood, tourism and culture, infrastructure and energy networks, healthcare and social security, smart cities and mobility, and public administration.

Among the measures that shall be adopted are those to increase the number of AI experts in Italy to support academic, industrial training and research in this field and to finance the hiring of professors and researchers in universities and R&D centres, as well as financing masters carried on by businesses alongside universities and programmes of industrial PhDs.

Besides promoting the development of centres operating in the AI field, the government is aiming at realising a national network for the development and wide spread of AI and digital technologies. Material in this context will be the activities of the Competence Centre and the 12 technology clusters, among which is one dedicated to the Intelligent Factory and the Digital Innovation Hub.

There are several possible solutions for improving interoperability and access to public administration data, and the Italian Government is committed to promoting the development of the Data Sharing Agreement, which is a standard contract under which parties undertake with each other to manage data supply and management in accordance with agreed upon rules, as well as to assess, in cooperation with the Antitrust Authority and the Privacy Authority, the implementation of data sharing standards in specific strategic sectors of national interest.

The regulatory and ethical aspects are indeed material to developing AI. The constant interaction between man and intelligent-machine requires an update of the legislative framework to ensure that the AI system engineering is trustworthy. As an example, the current EU Machine Directive does not reflect the changes that have occurred, and a new European directive in that field is needed.

In connection with the ethical aspects, the Italian Government intends to prevent any kind of AI that can increase social differences and is detrimental to some. To that extent, the opportunity to regulate, promote and manage new certifications, which allow the verification that AI systems are aligned with the principles that the European guidelines on ethical AI set forth, is under examination.

Among the public administration sectors that could benefit from the use of AI are countering tax evasion and avoidance, web crimes, combating cyberattacks arising from AI, personal information and sensitive data theft, and fighting against organised crime and terrorism.

The Italian strategic plan represents a contribution to the European Coordinated Plan on AI.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

The legal effects and legal issues connected to the design, manufacturing and use of new technologies, including those connected to AI, must be examined within the context of the current statutory regulations, and be resolved on the basis of existing legal principles. This is because, to date, there are no statutory regulations in force specifically regulating AI systems, the consequences of availing of them or the liabilities from either a civil or criminal law standpoint, arising from losses or felonies depending on or connected to their use.

This means that general statutory regulations on contracts and torts apply to liabilities arising from losses, with all their features and differences, in terms of liability allocation, burden of proof and statutes of limitations, arising therefrom.

By analogy, the general statutory regulations of copyright and intellectual property apply to the invention and development of AI systems and to the output from their use.

Ultimately, the treatment of personal data and privacy rights linked to the use of AI is subject to the GDPR.[260] Notwithstanding, the EU directive does not make express reference to the use of new technologies; its scope is that the treatment and protection of personal data are ensured within the current technology context, especially with reference to the risks that innovation can cause to individual privacy.

The main feature of AI compared to other innovative technologies is embedded in its system, which allows 'self-decisions' through machine learning mechanisms, operating on external inputs and gathered data. From a legal standpoint, self-determination can interrupt the link between the conduct of those who have conceived, designed or manufactured the system and the output that the system generates. This involves an evident legal issue of linking liability to persons due to the autonomous AI conduct.

Based on domestic civil law, there are rules attributing liability for the conduct of another and or standards of strict liability, for example, liability for carrying out dangerous activities, as a provision of the Civil Code, Article 2050, set forth for car driving. Likewise, some EU statutory regulations, for example, EU Directive No 374/85 on liability for defective products, can apply and determine civil law liability. On the contrary, these standards and principles cannot apply to criminal liability due to the principle of legality and because criminal liability is personal. It is not possible that someone is subject to criminal responsibility for the conduct of another; hence, it is difficult to conceive that an individual can be criminally sanctioned for the autonomous, inevitable and unforeseeable conduct of an AI system capable of self-determination.

Brand new domestic statutory regulations – not directly linked to AI – have been introduced recently in the area of new technologies, for instance, blockchain and smart contracts, based on Act No 12-2019, which introduces definitions of 'technologies based on distributed ledgers' and 'smart contracts'.

New statutory regulations on AI are under discussion and they will abide by the EU Ethics Guidelines on AI and its principles as of 8 April 2019 (High-Level Expert Group on AI – Ethics Guidelines for Trustworthy Artificial Intelligence).[261]

260 See https://eur-lex.europa.eu/eli/reg/2016/679/oj accessed 6 July 2020.

261 See https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai accessed 6 July 2020.

The first of these principles provides that there shall always be human control of AI because the aim is to improve human actions and the human's rights, not to reduce the human's autonomy. A second principle provides that algorithms shall be safe, trustworthy and resist errors or inconsistencies during the different phases of the AI system life cycle. The third entails that citizens shall be always informed about the use of their personal data and have full control so that it cannot be used against them, and that shall be done by following consistent provisions in respect of the GDPR.

The fourth principle calls for transparency and aims to guarantee the traceability of AI systems. The fifth principle is to guarantee diversity and non-discrimination, with human beings able to modify the algorithms' decisions, taking into account all the needed factors. In this connection, there shall be procedures to object to algorithms' decisions to ensure the liability of those managing the systems in the case of loss or damages. Eventually, domestic statutory regulations on AI shall be intended for the benefit of social and environmental welfare.

6. Is free data access an issue in relation with AI?

As mentioned in question 5, the treatment of personal data and privacy rights linked to the use of AI is subject to the GDPR. Therefore, the GDPR statutory provisions apply to the use of free data, providing restrictions in order to ensure individual privacy.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

To date, there are no court decisions on AI.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

Currently, there are no planned, discussed or implemented sectorial statutory regulations in Italy on the use of the AI in the legal profession or services that are traditionally rendered by lawyers. Although not directly related to the use of AI, the Agency for Italian Digitalisation (Agenzia per l'Italia Digitale or AGID) issued Resolution No 116/2019 of 10 May 2019, setting up a Working Group for the implementation of guidelines and technical standards relating to technologies

based on distributed ledgers and smart contracts.[262] This action was carried on pursuant to the provision of Article 8ter of Law Decree No 135 of 14 December 2018 titled 'Urgent provisions to support and simplify for companies and the public administration', which was ratified through Act No 12 of 11 February 2019.[263] This Act introduces the legal definitions of 'technologies based on distributed ledgers' and 'smart contract'.

According to such statutory regulation, technologies based on distributed ledgers are those 'technologies and digital protocols, which involve the use of a shared ledger and are: 1) distributed; 2) reply; 3) simultaneously accessible; 4) structurally decentralised on cryptographic basis; and 5) capable to allow data recording, validation, upgrade and storage, both encrypted and not, which can be verified by each participant and which cannot be not modified or altered'.

A smart contract, instead, is defined as a 'computer program operating on technologies based on distributed ledgers and its execution automatically binds two or more parties on the basis or provisions pre-set by the same parties. Smart contracts satisfy the legal standard of written form through digital identification of the concerned parties', through a technical procedure matching the requirements AGID sets forth.

The recording of a digital document through the use of technologies based on distributed ledgers has the same legal effects as electronic time stamps in the provision of Article 41 of Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market.[264]

In this context, the guidelines on technical standards that are about to be issued by AGID are material for ensuring the legal effects of electronic time stamps.

9. What is the role of the national bar organisations or other official professional institutions?

The Italian Bar Associations will play a material role in providing ethical rules and guidelines for the use of AI by the legal profession. Civil proceedings have been digitalised over the last decade, and the way of working for lawyers, judges and court clerks has changed dramatically.

The first step has been the digitalisation of court case registers, which are currently digital databases, and lawyers can access them to file written pleadings and court judgments via the so-called Portale Servizi Telematici (PST) from

262 See www.agid.gov.it/it/sicurezza/cert-pa accessed 6 July 2020.

263 See www.gazzettaufficiale.it/eli/id/2018/12/14/18G00163/sg accessed 6 July 2020.

264 See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0910&from=EN accessed 6 July 2020.

personal computers, access points and tools there connected (eg, 'Service1' and 'Consolle Avvocato').[265]

That has allowed a more efficient update of court claims files through databases, which enable real-time data sharing. Among the most relevant features, the PCT (ie, 'Processo Civile Telematico') has allowed the build-up of a digital archive of court decisions on a national scale.

Such an archive is being developed on a voluntary basis by judges, who filed their relevant decisions, based on their own assessment and by following the guidelines of court chambers. This archive-database enables judges to assess how a specific case was entertained and resolved by his/her colleagues and includes judgments of the courts of appeal. This leads to more uniform judgments on similar lawsuits within the same tribunals and gives lawyers the opportunity to better assess claims to advise clients.

There is an ongoing discussion on the use of tools on these databases, which would allow lawyers to have an automated risk assessment of a potential lawsuit, including the use of AI, to that extent.

As mentioned, several Legal Tech providers are currently offering office automation in some cases through AI tools that automatically select legal documents, for instance, ROSS Intelligence and LT42.

From a technical standpoint, a material aspect of machine learning is the availability of adequate datasets during the several development phases, such as training, cross-validation and testing. There is a direct relationship between the database dimension and the accuracy of the resulting models.

Among the benefits of implementing AI for legal practitioners is the improvement of knowledge and productivity; however, an open issue remains regarding determining the liability of those engineering, managing or using software that leads to wrong automated decisions. Software decisions are, in any case, still revised by individual professionals.

In Italy, the judge tool Consolle del Magistrato provides judges with access to a digital case file, and there is automated filling of the headings of documents, hearing minutes and orders of judgments on the basis of pre-set templates. Nevertheless, the document content, such as fact finding, reasoning and holdings, are entirely controlled by judges; hence, beyond the scope of this article.

Coming instead to the aforementioned digital archive of court decisions, the national bar associations shall discuss whether an AI machine learning system could support legal practitioners and judges in the issuance of decisions, provided the tool is capable of selecting relevant court precedents that fit the specific lawsuit. Such a

265 See www.accessogiustizia.it/pa/pct.jsp accessed 6 July 2020.

tool could be implemented into the current PCT system at a centralised/ministerial level through a centralised national database or district court database.

Additionally, the national bar associations are called to examine the ethical aspects of implementing these tools into the legal profession. In their discussion, the bar associations shall take as reference the work of the European Commission for the Efficiency of Justice (CEPEJ) of the European Council, which, in December 2018, issued the European Ethical Charter on the use of artificial intelligence (AI) in judicial systems and their environment (the 'Charter').[266] The Charter provides a framework of principles that can guide policy-makers, legislators and justice professionals when they grapple with the rapid development of AI in national judicial processes.

The CEPEJ's view as set out in the Charter is that the application of AI in the field of justice can contribute to improving efficiency and quality, and must be implemented in a responsible manner that complies with the fundamental rights guaranteed, in particular, in the European Convention on Human Rights (ECHR) and the Council of Europe Convention on the Protection of Personal Data. For the CEPEJ, it is essential to ensure that AI remains a tool in the service of the general interest and that its use respects individual rights.

The CEPEJ has identified the following core principles to be respected in the field of AI and justice:

- principle of respect for fundamental rights: ensuring that the design and implementation of AI tools and services are compatible with fundamental rights;
- principle of non-discrimination: specifically preventing the development or intensification of any discrimination between individuals or groups of individuals;
- principle of quality and security: with regard to the processing of judicial decisions and data, using certified sources and intangible data with models conceived in a multidisciplinary manner, in a secure technological environment;
- principle of transparency, impartiality and fairness: making data processing methods accessible and understandable, and authorising external audits;
- principle 'under user control': precluding a prescriptive approach and ensuring that users are informed actors and in control of their choices.

For the CEPEJ, compliance with these principles must be ensured in the processing of judicial decisions and data by algorithms and in the use made of them.

266 See www.coe.int/en/web/cepej/cepej-european-ethical-charter-on-the-use-of-artificial-intelligence-ai-in-judicial-systems-and-their-environment accessed 6 July 2020.

Japan

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1. What is the understanding or definition of AI in your jurisdiction?

General understanding

At least one standard Japanese dictionary defines the term 'Artificial Intelligence (AI)' as: '[a] computer system which is equipped with functions of the human brain such as learning, predicting and judging.'[267] From an academic perspective, however, the term 'AI' has no uniform definition among Japanese researchers.

Legal terminology

Japan currently has no uniform statutory definition of the term 'AI'. However, in the Basic Act on the Advancement of Public and Private Sector Data Utilisation, enacted in December 2016, the term 'artificial intelligence-related technology' is defined as, 'technology for the realisation of intelligent functions, such as learning, inference, and judgement, by artificial means, and use of the relevant functions realised by artificial means.'

2. In your jurisdiction, apart from legal tech tools (ie, law firm or claim management, data platforms etc), are there any actual AI tools or use cases in practice for legal services?

Introduction

Various legal tech services that leverage AI and natural language processing are currently being used Japan's legal sector.

There are generally two categories of services: services provided to lawyers and corporate legal staff to improve operational efficiency, such as contract review, contract management, document review (predictive coding), legal research,

267 *Daijien*, 3rd edition, 2006.

and contract translation; and services provided to increase accessibility to justice and law for general consumers, such as do-it-yourself (DIY) and online dispute resolution (ODR).

The following are core services in Japan provided to lawyers and corporate legal staff.

CONTRACT REVIEW

'Legal Force', an AI-based Japanese-language contract review service provided by Legal Force Inc, is used by more than 500 companies and law firms in Japan. Its main functions include an automatic contract review feature, a knowledge management system, and a template database containing provisions from 420 types of contracts.[268]

The automatic contract review function supports 32 types of contracts, which can be reviewed and edited directly by uploading a Word format contract into Legal Force. The tool determines the content of the contract, clause by clause, and alerts the user of legal risks. Proposed revisions to the flagged clauses are presented according to their risk profile, and the uploaded contract can be modified directly by the user according to these alerts. The system also has the capacity to suggest clauses that are missing from the contract under review. The importance of a clause can be pre-set and the priority of review can be customised to users' preferences.

The knowledge management function can automatically extract and register vital information, such as the name of the contract and the names of the parties etc, in uploaded contracts. It can also search for similar contracts or in-house templates from the tool's library. With the comparison function, the system can automatically compare terms between two contracts (for example, the proposed contract and the user's template) and produce a table of their similarities and differences. This comparison can be conducted even if the order of clauses in each respective contract is different.

There are also other contract review services in Japan, such as *AI-CON* provided by GVA Tech.[269]

DOCUMENT REVIEW (PREDICTIVE CODING)

'KIBIT', an artificial intelligence engine provided by FRONTEO Inc, is a document review and predictive coding service which supports language analysis in Japanese, Korean, Chinese, and English.[270] KIBIT is used in fraud investigations and e-discovery, and is also routinely used for email auditing. According to our

268 Legal Force website, available at: https://legalforce-cloud.com.

269 AI-CONPro website, available at: https://ai-con-pro.com.

270 FRONTEO website, available at: https://www.fronteo.com.

interviews with company representatives, relative to other services, KIBIT provides highly accurate reviews using comparatively less training data. For example, the tool can flag up emails that suggest fraud by analysing a message's content and context, even if such emails do not explicitly refer to fraud.

MNTSQ Ltd is developing a document review service to conduct legal due diligence, backed by Nagashima Ohno & Tsunematsu (NO&T),[271] one of Japan's 'Big Five' law firms. Although not yet available to the public, MNTSQ is currently training its machine learning algorithm with a data set of anonymised contracts.

LEGAL RESEARCH

'Legalscape', provided by Legalscape Inc, unifies and connects legal information (legal literature, judgements, administrative documents, guidelines, public comments, etc) from both online and offline sources. This enable lawyers to conduct comprehensive online legal research through what the company envisions as 'a legal version of Google'.[272] For example, the system allows its users to search through 532 registered law-related books in full text and displays where the searched keyword appears within each book. Legalscape uses its AI to organise and structure this legal information by adding 'headings' and 'text' tags to each document it searches.

There are other legal research services in Japan, such as 'LEGAL LIBRARY'[273] and 'LION BOLT'.[274]

CONTRACT TRANSLATION

The Rosetta Corporation's 'T-400', a service that uses machine learning to translate legal documents and contracts automatically, has already been adopted by many law firms and companies in Japan.[275]

3. If yes, are these AI tools different regarding independent law firms, international law firms, and in-house counsel? What are these differences?

Our research indicates that large independent Japanese law firms have introduced document review, legal research and contract translation services into their practices, but have yet to adopt contract review services.

271 MNTSQ, website, available at: https://www.mntsq.co.jp.

272 Legalscape website, available at: https://www.legalscape.co.jp.

273 LEGAL LIBRARY website, available at: https://legal-library.jp.

274 Sapiens website, available at: https://sapiens-inc.jp.

275 Rozetta AI Auto-Translation, available at: https://www.rozetta.jp/department/?id=sec01.

Our research also indicates that an increasing number of major Japanese companies have adopted contract review and translation services. Contract review services are perceived as particularly useful, especially among non-lawyers in corporate legal departments.

Although international law firms have introduced contract translation services developed by Japanese companies into their practices, they do not appear to have adopted other domestically developed legal tech services.

4. What is the current or planned regulatory approach on AI in general?

Vision for 'Society 5.0'

The Japanese government has launched the vision of 'Society 5.0', defined as:

'[a] human-centred society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space.'[276] Society 5.0 was proposed by the government in the 5th Science and Technology Basic Plan 'as a future society that Japan should aspire to, which follows the hunting society (Society 1.0), agricultural society (Society 2.0), industrial society (Society 3.0), and information society (Society 4.0).'

According to the Cabinet Office website, in Society 5.0, people, things, and systems are all connected in cyberspace. Accordingly, AI analyses all of this data and feeds optimised results and solutions back into physical space, thereby bringing new value to industry and society in ways not previously possible. As seen above, AI will play a significant role in Society 5.0.

Japan aims to become the first country to achieve a human-centred society (Society 5.0) in which anyone can enjoy a life full of vigour. It intends to accomplish this goal by incorporating advanced technologies in a diverse range of industries and social activities, fostering innovation to create new value.

Principles and guidelines relating to AI

Based on its 'human-centred' policy, the Japanese government has established the Council for Social Principles of Human-Centric AI and adopted the 'Social Principles of Human-Centric AI'.[277] The charter consists of:

276 Cabinet Office, Government of Japan, definition of *Society 5.0*, available at: https://www8.cao.go.jp/cstp/english/society5_0/index.html.

277 'Social Principles of Human-Centric AI', Council for Science, Technology and Innovation, Japan Cabinet Office, 2019, available at: https://www8.cao.go.jp/cstp/english/humancentricai.pdf.

- three basic philosophies – dignity, diversity and inclusion, and sustainability;
- seven principles – (1) human-centric, (2) education/literacy, (3) privacy protection, (4) ensuring security, (5) fair competition, (6) fairness, accountability and transparency, and (7) innovation; and
- two additional documents, the AI R&D Guidelines for International Discussions[278] consisting of nine principles, and the AI Utilisation Guidelines[279] consisting of ten principles, along with their respective commentaries were also released as practical references.

It should be noted that such Japanese principles for AI have given effect to the Recommendation of the Council on Artificial Intelligence, adopted by OECD Board.

As seen above, the rules related to AI have been made as 'soft-law' in Japan. According to our research, there is currently no legislative plan to regulate AI as 'hard law'.

5. What are the current or planned regulations on the general use of AI or machine learning systems?

Introduction

There are currently no statutes or regulations that specifically regulate AI in Japan. As a result, existing legislation is generally applied to AI or machine learning systems. However, in some areas, existing legislation has been updated to meet the new challenges arising from AI-related issues. Given this context, in this chapter, we focus on introducing new or updated legislation in three key areas, namely: autonomous driving issues; copyright; and Big Data protection. Privacy and personal data protection is further explored in Question 6 below.

AUTONOMOUS DRIVING ISSUES

A typical example of an AI-equipped technology approaching practical use in Japan is a car with an autonomous driving function.

In Japan, there are six classifications (Level 0 to Level 5) which categorise automatic driving according to J3016 (September 2016) by SAE International and its Japanese reference translation, JASO TP 18004.

278 'Draft AI R&D Guidelines for International Discussions', The Conference toward AI Network Society, 28 July 2017, available at: https://www.soumu.go.jp/main_content/000507517.pdf.

279 See https://www.soumu.go.jp/main_content/000658284.pdf.

In Level 3 automated vehicles for example, there will be a 'fallback-ready user' who is prepared to respond to traffic, road, or hazardous conditions. This user does not need to control the vehicle directly in normal conditions while the autonomous driving system is operating. However, this fallback user will be responsible for responding appropriately to the system's intervention requests. In contrast, personnel within Level 4 or 5 driverless vehicles are no longer considered drivers, but passengers, with no role in vehicle operation.

The Road Traffic Act and the Road Transport Vehicle Act, both which were amended in 2019, provide a new definition for 'automatic navigation system'. The term is now defined as a device that has 'functions to replace the entire ability of the driver of the vehicle to recognise, predict, judge, and operate the vehicle', ie, automatic driving function using AI technology. In vehicles equipped with an 'automatic driving device', drivers are now exempt from rules that preclude them from talking on mobile phones or looking at electronic displays, such as navigation systems (Article 71-4-2, paragraph two of the Road Traffic Act). This amendment allows level 3 autonomous-driving cars to use public roads.[280]

In Japan, negligence of an actor is required to impose tort liability. With respect to tort liability in the event of a traffic accident, a Level 3 designation does not relieve the user of an automated vehicle entirely of the duty to drive and operate the vehicle while it is driving autonomously. However, drivers are not required to take direct control of the vehicle and the duty of care necessary while driving is reduced. As a result, drivers may not be found negligent for an accident involving a Level 3 vehicle. At Level 4 and above, the user of an automated vehicle is, in principle, allowed to trust the proper operation of the system and does not owe a duty of care while the system is in use. Therefore, in principle, the user is not negligent for any accident while using the system. However, failure to perform the required inspection and maintenance of the car's software before driving may constitute negligence. In addition, if the autonomous-driving car repeatedly behaves abnormally and the user continues to use the system, the user may be considered negligent. Furthermore, if the user should have suspected the system to be defective or the user's assumption of trust in the system has diminished, negligence may also be imposed.

In Japan, the Compulsory Insurance System has been established in accordance with the Act on Securing Compensation for Automobile Accidents. The owners and other operators of cars are made to bear de facto strict liability for traffic accidents in order to provide prompt and reliable compensation for damage.

The Ministry of Land, Infrastructure, Transport and Tourism's Study Group on Liability for Damages in Automated Driving has studied the liability for damages under the Act for accidents involving vehicles equipped with up to Level 4 autonomous driving capabilities. Its report, which was published in March 2018,

280 'Autonomous Driving', National Police Agency, available at: https://www.npa.go.jp/bureau/traffic/selfdriving/index.html.

covers a transitional period until around 2025.[281] The report concluded that at least until the transitional period, strict liability should continue to be imposed on the owners or operators of autonomous vehicles involved in accidents. The liability of the manufacturers of autonomous-driving vehicles is also being discussed among academics and lawyers.

Regarding the application of criminal law to accidents while using automated driving systems, there is discussion whether criminal law is applicable to AI itself in cases where errors in the AI's judgement is the causes of the accident.

COPYRIGHT

To develop AI effectively, AI systems need as much training data as possible, and such data sets may contain copyrighted material. Consequently, there is debate as to whether the use of copyrighted works for the purpose of AI analysis should be permitted, and in the case that it is, to what extent. As the basic framework, the Copyright Act of Japan has not recognised a 'fair use' defence against alleged copyright infringement, but the legislation lists certain specific acts, including reproduction for private use or citation, etc, as being exceptions to copyright infringement. In general, the scope and conditions of such exceptions are explicitly prescribed in the Act. However, new exceptions to copyright infringement are now emerging, which were not previously contemplated by the Act. For example, according to the Copyright Act as amended in 2018, unless it unduly harms a copyright holder's interests, copyrighted works may, to the extent necessary, be used in any manner if such use is made for any purpose other than enjoying the expression of the copyrighted works, including for the purpose of information analysis. This exception is applicable even for commercial use, and even for use for the benefits of third parties. Consequently, use of copyrighted works as training data for deep learning or machine learning and the creation of training datasets for circulation among business partners or affiliates does not constitute copyright infringement. Given such broad exceptions to copyright infringement, a Japanese researcher has deemed Japan 'a paradise for machine learning'.

PROTECTING BIG DATA

The use of Big Data plays a significant role in enhancing the capabilities of AI, thereby necessitating the protection of its commercial value. However, under article 206 of the Japanese Civil Code, '[a]n owner has the rights to freely use, obtain profit from and dispose of the Thing owned, subject to the restrictions prescribed by laws and regulations', and under article 85 of the Civil Code, '[t]he term "Things" as used in this Code shall mean tangible things.'

281 Report of the Study group on liability for damages in autonomous driving, 2018, available at: https://www.mlit.go.jp/common/001226452.pdf.

Therefore, no ownership right is conferred in data, as it not considered tangible. Also, due to the absence of creativity, inventiveness, or novelty, Big Data is not generally copyrightable or patentable under current law. Big Data may qualify for protection as a 'trade secret' as defined under the Act against Unfair Competition. However, since Big Data often contains non-confidential information, it often does not qualify as a trade secret. To address this issue, the Act was amended as of July 2019 and added protection for certain elements within Big Data. These protected elements, called 'data for limited provision', are defined as technical or business information that is: accumulated in a reasonable amount by electronic or magnetic means (ie, an electronic form, a magnetic form or any other form that is impossible to perceive through human senses alone) and managed by electronic or magnetic means as information provided to specific persons on a regular basis. If Big Data qualifies as 'data for limited provision' under the Act, certain types of conduct, such as misuse, misappropriation, or unauthorised disclosure of such data are subject to injunction and compensatory damages.

6. Is free data access an issue in relation to AI?

Protection of privacy

Under established court precedence, an individual enjoys constitutional rights to privacy and to not having their private life unduly disclosed to the public.

Protection on personal data

Certain personal information is protected under the Act on the Protection of Personal Information of Japan. Personal Information is defined as information about a living individual which: can identify the specific individual by name, date of birth or other description contained in such information (including such information as will allow easy reference to other information and will thereby enable the identification of the specific individual); or contains the personal identification number. Under the Act, business operators storing personal information in searchable compiled databases for their business use are required to comply with certain requirements. These include the identification of the purpose of use, restriction on the purpose of use, appropriate acquisition, notification of the purpose of use on acquisition, and management of claims. In addition, such business operators are forbidden from providing a third party with personal information which constitutes a component of their database (defined as personal data), unless they obtains the principal's consent.

In the context of Big Data to be collected or used for AI analysis, unlike GDPR, information such as cookie-obtained information including browsing history, IP address, and location data do not qualify as personal information under the Act since they cannot be used to identify a specific individual. However, an issue arose

in 2019 when cookie-obtained information relating to the university students' job-seeking behaviour was analysed by AI and later sold to recruiting companies without the students' consent. Under such circumstances, the Act was amended in 2020, adding the category of 'personal related information', defined as 'the information about a living individual which cannot identify the specific individual by itself.' In case personal related information is to be transferred to a third party, and such information qualifies as personal data which can identify specific individuals in conjunction with other information already possessed by the acquirer, the transferor must obtain the individual's consent, and the acquirers must confirm that the transferor has received the individual's consent.

AI principles

The 'Principle for Privacy' is contained in both AI R&D Guidelines for International Discussions and AI Utilisation Guidelines mentioned in Question 4 above.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

According to our research, there are no decisions regarding the use of AI in the providing of legal services.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

Based on the premise that the AI currently being developed and operated is so-called weak AI (ie, AI that appears to be doing something similar to the intellectual activities performed by humans on a particular issue), the dominant view is that AI cannot fully supplant the core work of lawyers given the current state of the technology.

As a result, AI tools are considered supplementary tools to support lawyers and there has been no discussion of the full-fledged regulation of AI service providers. Some academics and lawyers with keen interest in legal tech have begun discussing the relationship between the legal tech services currently being offered and the current Article 72 of the Attorney Act, which regulates legal services as a monopoly for lawyers.

9. What is the role of the national bar organisations or other official professional institutions?

The Japan Federation of Bar Associations (JFBA) has the principle of lawyer autonomy in Japan. Therefore, the JFBA, and not the Ministry of Justice, develops regulations and ethical guidelines regarding the use of AI in legal practice. The regulations and guidelines set by the JFBA are followed by all lawyers.

However, while some JFBA committees, such as the Professional Reform Committee, have begun researching AI and its use in the practice of law, AI has yet to be discussed in earnest. Consequently, the JFBA's official position on the use of AI has not been presented.

Priority is currently being given to discussions about digitising civil trial procedures (e-court, e-filing, and e-case management), rather than introducing AI. Revision of the Code of Civil Procedure is being considered for 2022.

As part of this trend, the Project Team for Open Data of Civil Judgements, established by the Japan Federation of Bar Associations Legal Research Foundation, has been studying the possibility of providing information on civil judgements as electronic data to a wide audience by 2023.[282] Such digitalisation and publication of civil judgements will facilitate the development of AI tools for analysing and predicting judgements.

Article 11 of the Basic Code of Professional Conduct established by the JFBA bans lawyers from using or cooperating with service providers if there are reasonable grounds to suspect that such service providers may breach article 72 of the Attorney Act, which provides lawyers with a monopoly on legal services. Therefore, legal tech service providers in Japan are sensitive to taking on responsibilities or fielding work which may be within the scope of lawyers. On the other hand, Article 7 of the Code states that 'lawyers shall endeavour to study in order to become better educated and to become familiar with laws and legal affairs'. In future, this professional development obligation may be extended to require lawyers to learn about AI tools and use them in their legal practice for the benefit of their clients.

282 'Considering open data of civil judgment', Japan Federation of Bar Associations Legal Research Foundation, available at: https://www.jlf.or.jp/wp-content/uploads/2020/08/minjiodpt_siryou20200327.pdf.

South Africa

Tafadzwa Brian Mukwende, Diversity and Inclusion Officer, Phathi Trust, South Africa

1) What is the understanding or definition of AI in your jurisdiction?

Dating as far back as closed-circuit television, justice was born into the digital age. In modern times, even the law must protect itself from itself in order to be a better version of neatly crafted rules of modern societal fashion. Keeping up with digital trends technology advancements is top priority. In the case of *H v W* 2013 (2) SA 530 (GSJ); [2013] 2 All SA 218 (GSJ), Judge Nigel Willis had this to say:

> 'The law has to take into account changing realities not only technologically but also socially or else it will lose credibility in the eyes of the people. Without credibility, law loses legitimacy. If law loses legitimacy, it loses acceptance. If it loses acceptance, it loses obedience. It is imperative that the courts respond appropriately to changing times, acting cautiously and with wisdom.'

In essence, artificial intelligence is virtually part and parcel of the judicial transformative process agenda for the future efficacy of court systems. AI is a constellation of technologies designed to adapt over time through machine learning processes that enable highly intelligent machine prompted responses with augmented automated capabilities in any given environment.[283]

Virtual courtrooms are the new colour television of our times where the judge not only enters our sitting rooms, lounges and private spaces but the gavel strikes close to the smart phone via an app better known as digital caselining. One would say justice has not only managed to put on its shoes but also found its speed.

2) In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services?

In South Africa, there are diverse electronic legal resources, e-libraries and AI tools through which law professionals and any other person may access legal information on past, present and latest judicial precedents. By the push of a button on any one of the e-databases below, information is available:

- Bargaining council agreements: https://discover.sabinet.co.za/bargaining_councils

283 Access Partnership, *Artificial Intelligence for Africa: An Opportunity for Growth, Development and Democratisation*. South Africa: University of Pretoria (2017) p 4.

- Bill tracker: https://discover.sabinet.co.za/bill_tracker
- Government gazettes: http://discover.sabinet.co.za/government_gazettes
- Jutastat: https://jutastat.juta.co.za
- Municipality bylaws: http://discover.sabinet.co.za/municipal_by_laws
- My Lexis Nexis: www.mylexisnexis.co.zaNetLaw – Provincial: https://discover.sabinet.co.za/provincial_netlaw
- NetLaw – SA Legislation: http://discover.sabinet.co.za/netlaw
- Parliamentary documents: https://discover.sabinet.co.za/policy_documents
- Potchefstroom Electronic Law Journal: https://journals.assaf.org.za or https://law.nwu.ac.za
- Pretoria University Law Press – De Jure Law Journal: www.pilp.up.ac.zaProvincial gazettes: http://discover.sabinet.co.za/provincial_gazettesRetrospective government gazettes: http://discover.sabinet.co.za/rgg_gazettes
- Retrospective provincial gazettes: https://discover.sabinet.co.za/retrospective_provincial_gazettesSA journals – law: www.journals.co.za
- Sabinet – labour judgments: https://discover.sabinet.co.za/sabinet_labour_judgements
- Sabinet – reference: https://reference.sabinet.co.za
- SA Media: https://reference.sabinet.co.za/sa_media
- South African Legal Information Institute: www.saflii.org

The downside is that some of these specialised databases require membership subscriptions beyond the reach of many in order to gain access to case law, legislation and law journal publications.

3) If yes, are these AI tools different for independent law firms, international law firms and in-house counsel, and what are these differences?

International legal resources contain a matrix of sources of law, law journal publications, e-books, e-library features and archives of court records spanning for centuries of large law collection. Popular international legal resources include:

- Lexis Nexis International: https://solutions.nexis.com/doj

- HeinOnline: www.heinonline.org
- Index to Legal Periodicals: http://vnweb.hwwilsonweb.com/hww/jumpstart.jhtml

Vast differences may arise as a matter of affordability and access to AI tools where bigger international law firms are better positioned than small and medium-sized independent law firms. Subscription fees and cost of technology are the impediments to the use of AI and access to AI tools on these specialised law databases. Local databases are not as sophisticated and comprehensive as international databases in terms of quality and quantity of information.

4) What is the current or planned regulatory approach on AI in general?

Data protection legislation has been enacted in the South African jurisdiction to control freedom of expression, access to information and rights to privacy. Statutory and institutional mechanisms for data protection of confidential, sensitive and private information including trade secrets are established.

Protection of personal information in the information society

Minimum threshold requirements were established for the processing of personal information by public and private bodies as perambulated by the Protection of Personal Information Act, No 4 of 2013 (POPI). This legislative text examines the right to privacy, including the right to protection against the unlawful collection, retention, dissemination and use of personal information. Administration by an information regulator bestowed or endowed with certain scope of powers and to perform certain duties and functions intended to regulate the flow of personal information within the South African territory was established in comport with the Promotion of Access to Information Act 2 of 2000 and Protection of Personal Information legislative framework.

Civil remedies may be sought by an affected data subject, or at the request of the data subject, the regulator may institute civil action for damages against the party for intentional or negligent breach whether as provided by section 99(3) of the POPI. Administrative fines not exceeding ZAR 10m may be imposed for alleged infringement if found guilty as encapsulated by section 109(2)(c) of POPI.

Protection of rights through accessing information held by state and private bodies

Digital access to information records stored on computers or in electronic or machine-readable form or such copy by an information requester may be granted

or authorised by the public body concerned, as prescribed by section 29 of the Promotion of Access to Information Act 2 of 2000 (PAIA). A formal request for access to information must be made in the prescribed manner or form to the information officer of the public body concerned at his or her physical address or fax media or email address as stipulated by section 18(1) of the PAIA.

Voluntary disclosure and automatic availability of certain records are possible, subject to the head of a public body submitting a description of categories of records available to public access free of charge to the minister under legislative precepts as regulated by section 52 of PAIA. Additional functions of the Human Rights Commission include making recommendations for procedures in terms of which public and private bodies make information electronically available as governed by section 83 of the PAIA.

5) Which are the current or planned regulations on the general use of AI or machine learning systems?

Courts in the South African jurisdiction are undergoing digitisation and have adopted virtual court trials, including digital case management (caselines). Moving forward, the judiciary is prioritising digitising the functioning of courts to improve justice delivery and efficient performance. Court automation and the development of modernisation systems are of high priority for the justice department.

Recently, Mogoeng Mogoeng, the Chief Justice, announced that the digitisation project is piloting caselines in Gauteng,[284] equipped with a functioning National Efficiency Enhancement Committee (NEEC) and its equivalents the nine Provincial Efficiency Enhancement Committees (PEECs), including the Regional and District Efficiency Enhancement Committees (REECs and DEECs), set up by the Office of the Chief Justice (OCJ), which is tasked with facilitating the development of an appropriate court-automation system to detect causes and solutions of delays in the justice system.[285]

Implementation of electronic filing and record-keeping, performance-related data capturing, information dissemination or access to information relating to cases, judgments and all other court operations brings it much closer to achieving the goals of modernising the court systems.[286]

Court online components

The OCJ is in the process of developing and implementing Court Online. Court Online is an end-to-end e-filing, digital case management and evidence

284 South African Judiciary Annual Report (2017/18) p 9; South African Judiciary Annual Report (2018/19) p 7.

285 Judicial Newsletter Q3 Issue (December 2019) p 10.

286 (The South African Judiciary Annual Reports 2017/18:9; 2018/19: 7).

management system for the High Courts of South Africa. It provides legal practitioners with the opportunity to file documentation electronically online anywhere and at anytime without being physically present at court. It also affords law practitioners the ease of managing their court appearance diaries and court evidence instantaneously online.

Components of Court Online include: the front-end portal, workflow application, case management application, hearing application, evidence management application, post hearing or adjudication application and short message service (SMS) and email gateway to pass key information between the court and the litigants.

The front-end portal consists of a nine-step process to access the court online system:

- Step one: a law firm or litigant needs to create a once-off online profile so that they can access the court online system;
- Step two: a law firm or litigant must enter their identity document (ID) as part the online profile creation, which will be verified by the home affairs system along with all other information that citizenship can be verified;
- Step three: a law firm or litigant must enter their practice number as part of the online profile creation, which will be verified along the Legal Practice Council database of registered legal practitioners;
- Step four: upon registration, the law firm or litigant will register their digital signature on the system;
- Step five: the front end will provide law firms or litigants with an online case file through which they can file and view documents that have been filed by them, served on them or any messages received from the courts;
- Step six: upcoming hearing dates are also pushed through the front end at the law firm level and at the case level;
- Step seven: documents shall be sent as PDFs;
- Step eight: to file or serve a document, the law firm or litigant has to fill up the appropriate online template in the FE and attach the document to be filed or served in PDF format;
- Step nine, the entire submission may consist of one or several documents and this shall be digitally signed.

Physical court appearances became a thing of the past during the national lockdown caused by the Covid-19 pandemic. Court directives issued on 11 May 2020 provided physical court attendance was a last resort in the quest to strike a

balance between access to Justice having regard to the lack of IT infrastructure and equipment in the regional courts of Kwa Zulu Natal.

6) Is free data access an issue in relation with AI?

General public importance issues arise from future challenges with the process of judicial transformation when implementing digitisation, virtual courts, electronic presentation of visual-audio 'e-evidence' systems, e-services, e-filing, adoption of email correspondence and new legal reform to supplement court rules.[287] Forward thinking is required rather than a one-size-fits-all approach where great legal minds are admonished to apply the zebra approach to cater for unforeseen variables.

It is incumbent upon courts to be mindful of placing an iron curtain on the constitutional right of access to court justice and attenuating the right of access of information; it is especially important not to exclude the lay and illiterate from marginalised communities of previous disadvantaged people and disabled people. In the modern world, only the well-resourced tech savvy elite class will access speedy court processes. The circle of inequality hangs like a sledgehammer on legal migrants, refugees, undocumented citizens and second-class citizens, who may struggle to upload case files online since it requires citizens with a 13-digit green barcode identity approved by Home Affairs to access the automated court systems. Put simply, illegal immigrants and undocumented South Africans lack *locus standi* to be part of fair trials.

Diversity and inclusivity are the missing software components of technology since these require a certain level of literacy, training and exposure of the public to cloud computing and virtual platforms. Costs of technology remain a major impediment to free public access to data. Even recent interventions from the Independent Communications Authority of South Africa's (ICASA) latest regulations to lower costs of rollover data, airtime rates and usage notifications on mobile telecom service providers are a far cry from pragmatic solutions.[288]

7) Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

Beware of the sheriff on social media you have been served!

Substituted service by way of publication in the Government Gazette, national newspaper and local newspaper of last known whereabouts of the party, by

287 Reg 2 of the Government Gazette No 35450 published on 22 June 2012 by the Rules Board for Courts of Law inserted Rule 4A into the Uniform Rules of Court.

288 End-user and Subscriber Service Charter Regulations 2016 as Published under Government No 39898 of 1 April 2016, as amended in Notice No 233 of 2018 (Government Gazette No 41613).

registered post, by service on a relative, by service on last known address or a combination of these methods may be effected with leave of the court as contemplated by Rule 4A of the Uniform Rules of High Court.

The High Court in *CMC Woodworking (Pty) Ltd v Pieter Odendaal Kitchens* 2012 (5) SA 604 (KZD) at para 13, per Steyn J, granted the applicant *in this case* leave for a notice to discover to be served by way of substituted e-service on Facebook in terms of Rule 4A with necessary conditions as directed by the court requiring publication of notice in the local newspaper. Influence from a comparable foreign civil procedure in Canada emanated from the decision in *Boivin v Associés* c.Scott 2011 QCCQ 10324 (Can LII), in which the court authorised service of motion proceedings via the defendant's Facebook account.[289]

Where spoliation remedy does not apply

In the case of *Telkom SA Ltd v Xsinet (Pty) Ltd* 2003 (5) SA 309 (SCA) it was impugned whether the court a quo made an error of law in ruling that the respondent had successfully proved quasi-possession and was legally entitled to the spoliation remedy for interference and undisturbed internet use from the appellant.[290] On appeal, it was found that continuous use of internet connection does not per se, that is in its own right, constitute quasi-possession. Therefore, the spoliation remedy is not available to the respondent because the mandament does not protect infringement of incorporeal property.[291]

Freedom of expression on social media platforms

When considering the defamatory effects of publication on Facebook the Constitutional Court highlighted the need to consider the context of publication to strike a balance between the freedom of expression and right to dignity in *S v Mamabolo (eTV and Others Intervening)* 2001 (3) SA 409 (CC) at p429I-431B; *Le Roux v Dey Freedom of Expression Institute and Another as amici curiae)* 2011 (3) SA 274 (CC) at paragraphs 39 to 51.

In its decision the High Court in *H v W* at paragraph 40 held that the court only has the power to grant a restraining order to compel the respondent to remove already published information circulating on social media and not to prevent future publications. Reluctance of courts to interdict publication of information on social media has a chilling effect on the right to freedom of expression according to *National Media Limited v Bogoshi* 1998 (4) SA 1196 (SCA) at p1210G-I. Courts

289 LTC Harms, *Civil Procedure in Superior Courts Issue 45* (2012: Durban: Lexis Nexis) B4–30.

290 *Telkom SA Ltd v Xsinet (Pty) Ltd* 2003 (5) SA 309 (SCA) paras 11–12.

291 *Ibid*, para 14.

have a different attitude not to interfere with the free flow of information on news media because it infringes the right to freedom of expression.[292]

Protection of privacy in social media conflicts

The impact of social media conflicts arising from *iniuria* or injury to self-dignity and pride brings about the need to develop the common law protection afforded to the right to privacy. It is imperative to note the dangers of social media on this right. Therefore, there is a dire need to stress the introduction of legal reforms through legislation and necessary judicial interventions to turn Facebook to good use.[293] The High Court in *H v W* 2013 (2) SA 530 (GSJ); [2013] 2 All SA 218 (GSJ) at paragraph 30, ruled that granting an interdict is the appropriate legal remedy to prohibit future infractions of one's right to privacy as set out in *Setlogelo v Setlogelo* 1914 AD 221 at 227.

Intercepting private communications is unconstitutional

Secret state surveillance, and interception, of communications between Sam Sole, a journalist and managing partner of the Amabhungane Centre for Investigative Journalism, a non-profit organisation, and Advocate Downer, a state prosecutor, were, without reasonable justification, facts leading to the judgment in this case. In *Amabhungane Centre for Investigative Journalism NPC and Another v Minister of Justice and Correctional Services and Others* [2019] 4 All SA 33 (GP); 2020 (1) SA 90 (GP); 2020 (1) SCAR 139 (GP) at paragraph 168, per Roland Sutherland J, the High Court granted a declaratory order of invalidity against bulk surveillance activities and foreign signals interceptions as unlawful, striking down the statutory provisions of sections 16(7), 17(6), 18(3)(a), 19(6), 20(6), 21(6) and 22(7) of the Regulation of Interception of Communication-Related Information Act 70 of 2002 (RICA) to be inconsistent with the Constitution and accordingly invalid to the extent that it failed to prescribe procedure for notifying the subject of the interception, including where the subject is a practising lawyer or journalist. Sections 35 and 37 of RICA were also declared inconsistent with the Constitution and accordingly invalid to the extent that the statute, itself, fails to prescribe proper procedures to be followed when state officials are examining, copying, sharing, sorting through, using, destroying and/or storing the data obtained from interceptions.

8) What is the current status – planned, discussed or implements – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

292 LJ Strahilivetz, 'A Social-Network Theory of Privacy' V CHI L REV 72, 923-24.

293 J Grimmelmann, 'Saving Facebook' (94) *Iowa Law Review* 94 (2009) 1137-1205.

Judicial regulatory instruments

Transmission of any summons, writ, warrant, rule, order, document or other process in civil proceedings before a superior court or any communication by law, rule or agreement of parties may be effected or transmitted by fax or by means of any other electronic medium as provided by the rules in section 44(1)(a) of the Superior Courts Act 10 of 2013 read in conjunction with Judicial Regulatory Instruments (2nd ed) at 213. Notices sent by fax or any other electronic medium sent by any judicial or police officer, registrar, assistant registrar, sheriff, deputy sheriff or clerk of court is sufficient authority for execution of such writ or warrant for the arrest and detention of any person as envisaged by section 44(2)(a) of the Superior Courts Act 10.

Admissibility of digital evidence and the best evidence rule

Admissibility requirements of printed-out documents are governed by the provisions of section 15(1) of the Electronic Communications Act.[294] When print-outs of email correspondences transmitted or sent as data messages in electronic form are presented in court, the best evidence rule applies with respect to such documentary evidence in terms of section 15(1)(b) of the Electronic Communications and Transactions Act 25 of 2002. Electronic signature is not without legal force and effect merely on the grounds that it is in electronic form as envisaged by section 13(2) of the Electronic Communications and Transactions Act 25 of 2002. Advanced electronic signature is regarded as valid electronic signature, unless the contrary is proved as ensconced by section 13(4) of the Electronic Communications and Transactions Act 25 of 2002.

The best evidence rule implies the originality, authenticity, veracity and reliability of the document is in compliance with the statutory requirements of sections 14 and 15 of the Electronic Communications Act.[295] In determining the evidentiary weight of the data message, the reliability of such evidence is accorded to the manner in which it was generated, stored and communicated, integrity of data was maintained and the identification of the originator as encapsulated in section 15(3) of the Electronic Communications Act. There is a legal duty on the plaintiff to certify the data message as correct according to section 15(4) of the Electronic Communications Act.[296]

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294 S 15(1) of the Electronic Communications and Transactions Act 25 of 2002.

295 S 14 and 15 of the Electronic Communications Act 25 of 2002.

296 '(4) A data message made by a person in the ordinary course of business, or a copy or printout of or an extract from such data message certified to be correct by an officer in the service of such person, is on its mere production in any civil, criminal, administrative or disciplinary proceedings under any law, the rules of a self regulatory organisation or any other law or the common law, admissible in evidence against any person and rebuttable proof of the facts contained in such record, copy, printout or extract.'

Cybercrimes and malicious communications offences regulations

On 1 June 2021, President Cyril Ramaphosa signed the Cybercrimes Bill of 2017 into law to regulate the jurisdiction of cybercrimes in alignment with foreign policy to allow inter-state cybersecurity mechanisms. The Cybercrimes Act 19 of 2020 introduces alternative sentencing regimes for cybercrimes and malicious communications in the context of criminal penology. What to expect from the new cyber laws includes the criminalisation of the unlawful securing of access, acquiring of data, unlawful acts in respect of software and hardware devices, malicious communications, cyber fraud, cyber extortion, cyber forgery and attempted means of same conspiring, inducing and abetting.[297] The creation of new statutory criminal offences have a bearing on cyber-related acts and cybersecurity in attempts to regulate the digital playground.

Criminal proceedings on CCTV

Generally, court proceedings must be conducted in an open court with public access; subject to certain legal exceptions, justice may place a curtain on legal proceedings. Criminal proceedings can be held in camera, that is behind closed doors in accordance with prescribed requirements of section 153(1) of the Criminal Procedure Act 51 of 1977 (CPA). Based on the court's opinion to prevent revealing the identity of persons, if there is reasonable likelihood of intimidation or harm befalling witnesses, victim and witness protection in sex crimes-related trials especially minor children or vulnerable groups or class of persons, the trial may proceed in camera in terms of section 153(2) and (3) of the CPA.

Censorship of *sub judice* criminal court proceedings may be interdicted against any publications when it is just and equitable to do so in the eyes of the law as provided by section 154 of the CPA. All criminal proceedings must take place in presence of the accused except where judicial discretion fits or on application of the public prosecutor, the accused or witnesses' consent, evidence may be given by means of closed-circuit television or similar electronic media as envisaged by section 158(2) of the CPA. Courts may take into consideration certain factors such as prevention of unreasonable delays, saving costs, convenience, national interests of state security, public safety and good order or interests of administration of justice or public interest, prevention of reasonable likelihood of harm or prejudice of persons as set out in terms of section 158(3) of the CPA.

9) What is the role of the national bar organisations or other official professional institutions?

South Africa's legal profession is undergoing judicial transformation spearheaded by the new Legal Practice Act 28 of 2014, which repealed the Attorneys Act and

297 S 2, 3, 8, 9, 10, 12 of Ch 2 and Ch 3 of the Cybercrimes Act 19 of 2020.

Advocates Act. This provides a legislative framework for the transformation and restructuring of a fragmented legal profession in line with constitutional imperatives. A priority is to facilitate and enhance an independent legal profession that broadly reflects the diversity and demographics of the Republic. The establishment of provincial councils and a single South African Legal Practice Council as the mother body regulating the legal profession came about as a result of these new developments. The appointment of a legal services ombud that functions to monitor and ensure fair, efficient and effective investigations by the investigations committee, conduct of disciplinary committees and the conduct of the appeal tribunals is prescribed by section 42 of the Legal Practice Act 28 of 2014.

National Bar Council of South Africa

The National Bar Council of South Africa (NBCSA) is a voluntary association formed to promote healthy competition between lawyers including advocates and attorneys, which will translate into a better and more cost-effective service to the public. Maintaining the true spirit of professional autonomy is the primary objective of the NBCSA. The core founding principles of the NBCSA include providing assistance of the previously disadvantaged to enter into the profession without having undue barriers of entry placed in their way. Campaigning for an accessible legal system through the provision of support to advocates and upholding the belief in freedom to practice.

Law Society of South Africa

The Law Society of South Africa (LSSA) brings together the Black Lawyers Association (BLA), the National Association of Democratic lawyers (NADL) and provincial attorneys' associations in representing the attorney's profession in South Africa. The LSSA undertakes advocacy initiatives in the interests of the legal profession and the public as part of its mandate. It aims to empower attorneys to provide excellent legal services to the community in an ethical, professional, considerate and competent manner. Its mission is to represent the attorneys' profession and to safeguard the rule of law via the efficient and fair administration of justice.

Legal Practice Council

The Legal Practice Council (LPC) is a national statutory body established in terms of section 4 of the Legal Practice Act. Facilitating the realisation of a transformed and restructured legal profession that is accountable, efficient and independent is a chief goal of the LPC, in accordance with section 5 of the Legal Practice Act. Imperative objectives of enhancing and maintaining integrity of the legal profession are necessary to preserve and uphold the independence of the legal profession.

Regulation of all legal practitioners and all candidate legal practitioners is required to promote and protect public interests as the main function of the LPC and its provincial councils. The LPC's commitment to inclusivity and diversity ensures promotion of access to the legal profession, in pursuit of a profession that broadly reflects the demographics of South Africa. The LPC promotes high standards of legal education, training and compulsory post-qualification professional development. This seeks to ensure accessible and sustainable training of law graduates aspiring to be admitted and enrolled as legal practitioners. Registration and legal status of practising and non-practising legal practitioners including pending disciplinary processes, suspended practitioners and those struck off the roll is also now available to enable general members of the public to know their lawyer.

South African Judicial Education Institute

Training programmes ear-marked for judicial officers on a win-win court annexed mediation system facilitated by the South African Judicial Education Institute (SAJEI) was launched in July 2018. Judicial case flow management shall be directed at enhancing service delivery and access to quality justice through the speedy finalisation of all matters.[298] The National Efficiency Enhancement Committee, chaired by the Chief Justice, shall coordinate case flow management at national level. The head of each court shall ensure that judicial officers conduct pre-trial conferences as early and as regularly as may be required to achieve the expeditious finalisation of cases.

The finalisation of all civil cases in the High Court must be within a year of the date of issue of summons. In the magistrates' courts it must be within nine months of the date of issue of summons.[299] Judicial officers are required to finalise criminal matters within six months after every accused person pleads to the charge within three months from the date of first appearance in the magistrates' court.[300]

In conclusion, future litigation in virtual courts has become a virtual reality of modern litigation. Ongoing judicial transformation requires that legal reforms must accommodate the ever-expanding technological advancements. AI forms part of the solution as court structures are entering the digital space to suit the e-justice system. Online dispute resolution is the gateway for speedy alternative dispute resolution mechanisms that provide a smart remote solution through video conferencing, e-courtrooms and virtual courtrooms of today.[301] It seems the law has apparently left the proverbial walking stick for the electric wheelchair.

298 Judicial Regulatory Instruments (2nd ed) 178 para 5.2.4.

299 *Ibid*.

300 *Ibid*, 179 para 5.2.5.

301 I Knoetze, 'Courtroom of the future – virtual courts, e-courtrooms, videoconferencing and online dispute resolution' *De Rebus*, 2014 (546) 28–29; Will K Kaplan, 'Will Virtual Courts Create Courthouse Relics?' *The Judges' Journal* (2013) Vol 52(2) 32.

Sweden

Johan Hübner, Delphi, Stockholm

Linus Larsén, Delphi, Stockholm

Felix Makarowski, Delphi, Stockholm

1. What is the understanding or definition of AI in your jurisdiction?

There is currently no statutory definition of the term 'artificial intelligence' (AI) in Sweden. Neither is there a clear-cut or generally agreed definition of the term.[302] However, some guidance on the understanding of AI in Sweden can be found in government documents and voluntary industry codes.

In a 2018 report on AI in Swedish business and society, Vinnova – the Swedish Government agency for innovation – described AI as follows: 'In this analysis, artificial intelligence is defined as the ability of a machine to imitate intelligent human behaviour. Artificial intelligence also denotes the area of science and technology that aims to study, understand and develop computers and software with intelligent behaviour.'[303]

The Vinnova report's definition of AI provides two important insights into what AI is and into how it is often understood in Sweden. The first insight is that, at its core, AI is computer software. The second is that AI refers to the area of science and technology related to machines imitating intelligent behaviour, often with human intelligence as a reference point.

In its national approach to AI, the Swedish Government refers to the definition of AI in the Vinnova report.[304] The government further adds that: 'AI is a broad field that encompasses many technologies, not least machine learning and deep learning. What distinguishes AI from other automation methods is the ability of AI technology to learn and become smarter over time.'[305]

The Swedish Government's national approach to AI provides two further insights into how AI is often understood in Sweden. The first is that, in most cases, when referring to AI, most people mention machine learning and deep learning

302 Vinnova, *Artificial Intelligence in Swedish Business and Society*, dnr 2017-05616 (2018), see https://www.vinnova.se/en/publikationer/artificial-intelligence-in-swedish-business-and-society accessed 6 July 2020.

303 *Ibid*.

304 Government of Sweden, *National approach to artificial intelligence* (2018), see https://www.government.se/491fa7/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf accessed 6 July 2020.

305 *Ibid*.

technology. Machine learning and deep learning are subsets of AI research and technology. However, these technologies currently hold the most potential for developing complex AI systems and solutions. The second insight is that AI is usually understood to be technology that, on its own, learns and becomes more intelligent over time. This is achieved through exposing the AI to more data and by letting it attempt to solve problems it was programmed to complete.

Many discussions about AI in Sweden focus on ethics and trust. The discussions essentially come down to one question: how can we create AI that does the right thing but does not cause harm? This indicates that AI is viewed as a powerful, and potentially game-changing, technology, but it may be dangerous if it ends up in the wrong hands or is left to its own devices.

Since 2018, no legislative proposals or additional government reports have been published in which there has been an attempt to define AI. Instead, Sweden may be forced to follow the European Union's lead regarding the definition. In its proposal on an AI regulation (the AI Act), the European Commission defined AI systems as: 'Software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with.'[306]

The techniques and approaches listed in Annex I of the proposed AI regulation include machine learning approaches, logic- and knowledge-based approaches, and statistical approaches.[307] It is worth noting that the Commission has included several different subsets of AI research and technology in its definition, choosing not to focus too narrowly in its definition of AI. We note, however, that as the Commission's AI Act proposal will be subject to negotiations with the European Parliament and the Council of the European Union, the definition of the term AI may be subject to change.

2. In your jurisdiction, besides legal tech tools (i.e. law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services?

Actual AI tools are used in Sweden in a manner similar to other jurisdictions. Legal AI tools are used by a number of organisations in practice. We can identify two main categories of tools currently in use: tools used for document review/due diligence; and tools for proof-reading documents and other similar technologies.

The first category consists of a number of internationally marketed legal services, such as Luminance, Kira and RAVN, which identify trends and concepts in large

306 See https://eur-lex.europa.eu/resource.html?uri=cellar:e0649735-a372-11eb-9585-01aa75ed71a1.0001.02/DOC_1&format=PDF accessed 25 April 2022.

307 See https://eur-lex.europa.eu/resource.html?uri=cellar:e0649735-a372-11eb-9585-01aa75ed71a1.0001.02/DOC_2&format=PDF accessed 25 April 2022.

sets of documents. These services can be used for due diligence processes and other cases in which the review of documents is required.

The second category, which contains services such as Contract Companion and the Swedish service Donna, includes functions to proof-read the style and format of contract documents, often as plugins to programs such as Microsoft Word.

Even though it is common that actors in Sweden use some legal AI technology, litigation software based on AI has a much more limited use than in it does, for instance, in the United States. One plausible explanation for this could the common law system used in the US and the differences in the nature of litigation processes.

An emerging additional category of AI technology which is expected to gain increased importance over the next few years, is data retrieval with the help of AI to handle organisations' legal knowledge management. There has recently been an increased interest in this type of solution where relevant legal documentation can be retrieved within an organisation's IT infrastructure using AI software specialised in natural language processing.

Besides Donna, there are additional examples of AI tools developed in Sweden, both by law firms and independent legal tech providers, sometimes in cooperation. In a few cases there have also been examples of in-house legal development of legal tech, one example being a tool for reviewing data processing agreements under the General Data Protection Regulation (GDPR).

3. If yes, are these AI tools different regarding: (1) independent law firms (2) international law firms (3) in-house counsel, and what are these differences?

The main variation between how AI tools are used in Sweden is based on their respective capacity in acquiring legal AI services. Large international law firms are, in general, the only actors that are able to develop their own legal AI services, and have done so internationally, implementing such services in Sweden.

Several 'off-the-shelf' products are more widely available, see for instance, the examples provided to question 2 (above). Such AI products are widely in use by large and medium size Swedish law firms (all large and medium-sized law firms asked had invested in AI according to a 2019 survey conducted by the Swedish Bar Association's magazine).

The adoption of AI technology is more unusual in smaller law firms, although there are exceptions and niche use cases where even smaller law firms have developed their own AI technology.

For in-house legal counsels there are a few off-the-shelf products available as well as a few examples of in-house developments such as the example provided under

question 2 above. However, the general AI maturity of in-house legal departments still seems to be somewhat lower than at the large Swedish law firms.

The authors' understanding is that AI technology is limited to certain specific use cases in general among all law firms in Sweden, and not widely used within the scope of any organisation's core business.

4. What is the current or planned regulatory approach on AI in general?

The regulatory approach related to AI has historically not been very clearly defined in Sweden, although the work carried out in the area is increasing gradually. The Swedish Government has set out several general goals in its national approach to AI. The general ambition is for Sweden to be a leading country in exploiting AI's benefits, both through strengthened welfare and increased competitiveness.[308] Sweden has the ambition to become world leading in AI technology, and one ambition is for the legislative tempo to be increased and unnecessary regulatory obstacles preventing digitalisation to be removed.[309]

One area of importance, as indicated by the Swedish Government and other actors, is the creation of and adherence to ethical principles for developing and using AI technology, for instance, the guidelines issued by the EU High Level Expert Group on Artificial Intelligence (AI HLEG). Furthermore, specific Swedish guidelines have been issued by some stakeholders, including the Swedish IT and telecoms interest organisation (*IT & Telekomföretagen*).

Another area of importance that has been identified is the question regarding access and ownership of data, as will be outlined further below. It should also be added that much of Sweden's planned AI regulatory approach is coordinated within the EU framework, led by the European Commission, to increase both harmonisation and competitiveness with regard to the rest of the world.[310] The Swedish Government has expressed its ambition that Sweden should have a high level of competence and actively participate in the regulatory discussion regarding AI at an EU level. The government responded positively to the proposed AI Act presented by the European Commission in April 2021. It supported the approach, arguing that the proposal is based on human rights, including the right to privacy, freedom of expression, non-discrimination and gender equality, as well as human

308 Government of Sweden, *National approach to artificial intelligence*, (2018) see https://www.government.se/491fa7/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf accessed 6 July 2020.

309 Government of Sweden, *Hur Sverige blir bäst i världen på att använda digitaliseringens möjligheter - en skrivelse om politikens inriktning*, Skr. 2017/18:47, (2017), pp 19-20, see https://www.regeringen.se/rattsliga-dokument/skrivelse/2017/11/skr.-20171847 accessed 6 July 2020.

310 European Commission, *White Paper on Artificial Intelligence: a European approach to excellence and trust*, (2020) see https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf accessed 25 April 2022.

integrity, the protection of natural persons with regard to the processing of personal data and information and cybersecurity.[311]

In mapping the view on the regulation of stakeholders, a concern raised is that is unclear how the current rules apply to the use of AI technology, particularly sector-specific legislation.[312] That could be for instance with regards to data protection and the specific rules for healthcare, where there are limitations on the purposes for which personal data can be processed.

In the beginning of 2021, the Swedish state research institute RISE issued 25 recommendations for the increased adoption of AI in Sweden as part of its 'AI Agenda for Sweden' (the 'AI Agenda').[313] The many legal challenges of AI technology are also discussed in the AI Agenda, with the proposal stating that laws need to be modernised and adapted to the new reality where AI is a normal part of society. Laws should, according to the proposal, be drafted from a human-centred ethical perspective and it is essential that they are drafted in a technology-neutral way. Emphasising that the EU is a key player, the proposal stresses the need to adapt EU-level regulation while maintaining data protection. Furthermore, the EU needs to ensure that the legal conditions for experimentation in AI are in place for AI to be effectively introduced into society.

The Agenda identifies certain legal issues as particularly important for enabling the use of AI. These involve data protection, patents, liability issues and product safety. It proposes, among other things, that the Swedish supervisory authority for data protection (*Integritetsskyddsmyndigheten*) should be tasked with developing simple and clear examples of how personal data can be handled in a legally secure way when using AI and that responsibility for automated decision-making should be clarified. It is also proposed that legislative changes are made to enable the further sharing of data and information.

In June 2021, the government gave four Swedish authorities the task of investigating how the public sector can improve its use of AI to strengthen the country's welfare system and the global competitiveness of Swedish society. The work includes dealing with the availability and access of data, information security, a trust model for automated decisions and an overview of digital infrastructure in the public sector from an AI perspective.[314]

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311 Government of Sweden, *Förordning om artificiell* intelligens, FPM 2020/21:FPM109 https://www.regeringen.se/faktapromemoria/2021/05/202021fpm-109 accessed 22 March 2022.

312 Agency for Digital Government (*Myndigheten för digital förvaltning (DIGG))*, *Främja den offentliga förvaltningens förmåga att använda AI*, I2019/01416/DF, pp 29-30, see https://www.digg.se/globalassets/dokument/publicerat/publikationer/framja-den-offentliga-forvaltningens-formaga-att-anvanda-ai.pdf accessed 6 July 2020.

313 RISE, *25 förslag* för *accelererad AI-användning i Sverige* (2021), see https://www.ri.se/sv/ai-agendan/forslag-for-accelererad-ai-anvandning-i-sverige accessed 25 April 2022.

314 Government of Sweden, *Uppdrag att främja offentlig förvaltnings förmåga att använda artificiell intelligens*, (2021) see https://www.regeringen.se/regeringsuppdrag/2021/06/uppdrag-att-framja-offentlig-forvaltnings-formaga-att-anvanda-artificiell-intelligens accessed 25 April 2022.

To summarise, it is of central priority for the Swedish legislator to assess current legislation from an AI perspective and implement necessary changes. Moreover, support in the interpretation of new legislation is required from courts and public authorities. Access to data, information security and robustness, together with the ethical use of AI, are principles of central importance in the future regulatory approach.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

Introduction

There are currently no AI laws in Sweden. Historically, the legislative approach in Sweden has been to pass technology-agnostic legislation which does not need to be changed with every advance in technology. As a result, existing legislation can, in many cases, be applied to AI or machine learning systems. However, existing legislation is, in some cases, ill-suited for dealing with the unique challenges brought about by AI. In some cases existing legislation has been updated to improve how challenges relating to AI are dealt with.

There are four areas of legislation that are of primary relevance to AI: torts and liability, intellectual property rights, data protection and privacy, and automated decision making. It is important to note that AI does not have legal capacity in Sweden (ie, electronic personhood), meaning that the natural and legal persons behind the AI carry all relevant rights and responsibilities relating to it.

Torts and liability

The primary Swedish legislation governing liability in tort (non-contractual liability) is the Tort Liability Act (*Skadeståndslagen*). The Tort Liability Act is applicable when a party has suffered injury or damage attributed to AI caused by another party's negligent or intentional acts. Furthermore, there must be a causal link between the negligent act and the injury or damage.[315] However, because AI cannot be held liable under Swedish law, claims for damages must be directed toward the persons behind the AI (eg, the programmer, the user or the person responsible for training the AI). Due to the autonomous nature of AI as well as to the black box problem, it may be difficult to establish negligence and a causal link between the actions of those behind the AI and the injury or damage.

A tortfeasor may also be held liable on other grounds, primarily strict liability, if there is support for such liability in other legislation. This is the case, for instance, for damages caused by defective products under the Product Liability Act (*Produktansvarslagen*). In most cases, AI technology falls outside the scope

315 The legal assessment here may be complicated, but it is essentiality a requirement of foreseeability.

of the Product Liability Act because software is not a product under Swedish law. However, if the AI is embedded in a product, the Product Liability Act may be applicable to the product.

Intellectual Property Rights

Three main issues relating to AI are relevant to the protection of intellectual property rights (IPR): protection of data and input, protection of the AI itself, and protection of results and AI generated works. The primary relevant IPR legislation is the Copyright Act (*Upphovsrättslagen*). However, other legislation such as the Patent Act (*Patentlagen*) and the Trade Secrets Act (*Lag om företagshemligheter*) may, in some cases, also be relevant. Due to the difficulties in protecting IPR related to AI, companies and organisations may instead choose to protect them as confidential information and trade secrets.

The main rule in Sweden is that data, such as industrial or transaction data, is not eligible for copyright protection under law. However, if data is organised into a database, the database as a whole may be eligible for protection under the Copyright Act. Protecting AI technology under the current copyright framework also poses significant challenges. The Copyright Act protects the AI's code and algorithms but provides no protection for the idea or concept behind the AI – meaning that anyone can create similar AI using different code or algorithms. Finally, works autonomously created by AI are not eligible for copyright protection under Copyright Act. However, where humans and AI collaborate in the creative process, AI generated works may be eligible for copyright protection.

Data protection and privacy

The primary legislation governing data protection in Sweden is the GDPR.[316] This is complemented by the Swedish Data Protection Act (*Lag med kompletterande bestämmelser till EU:s dataskyddsförordning*), and sector-specific regulations such as the Patient Data Act (*Patientdatalagen*). Training and using AI requires large quantities of data. Where that data is personal data, the need to use large quantities of data comes into conflict with the GDPR and compliance with legislation must be observed.

The Swedish Data Protection Authority (*Integritetsskyddsmyndigheten*) (DPA) has issued a few decisions relating to the processing of personal data with the help of AI-systems. In 2019, the DPA issued an administrative fine to a municipality that used an AI system to register student attendance in classrooms. The DPA stated that the processing of personal data and sensitive personal data was not compliant with Articles 5 and 9 of the GDPR. In a more recent case from 2021, the DPA issued

316 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

an administrative fine to the Swedish Police Authority for using a facial recognition application. The fine was issued on the grounds that the Swedish Police Authority: (1) had processed biometric data in breach of the Swedish Criminal Data Act (*Brottsdatalagen*); (2) had not implemented appropriate technical and organisational measures; and (3) had not carried out a data protection impact assessment relating to the use of the facial recognition application.

Automated decision-making

The main legislation that governs automated decision making under Swedish law is the GDPR. Under GDPR, Article 22, data subjects have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects. GDPR Article 22 paragraph 2 contains some exceptions to the main rule, including, for instance, that automated decision-making is permitted when it is authorised by EU or Member State law, which also lays down suitable measures to safeguard the rights of data subjects.

Following the reform of the Administrative Procedures Act (*Förvaltningslagen*), Swedish public authorities are permitted to use automated decision-making when making decisions. This change was made to permit automated decisions with the aim of making public authorities compliant with GDPR, Article 22.

Planned legislation and legislative initiatives

The majority of legislative initiatives and planned regulations concerning the use of AI and machine learning in Sweden come from the EU. The Swedish Government is currently working on implementing the Digital Single Market (DSM) Directive[317] and the Open Data Directive[318] into Swedish law, which will potentially improve free data access in Sweden (see further question 6 below).

In 2017, the Swedish Government adopted an ordinance permitting the trial of autonomous vehicles on public roads. The following year, the government released its official government report on autonomous vehicles.[319] The report contains, inter alia, discussions on introducing a new definition for the term 'driver', regulating the obligations and responsibilities of drivers and owners of autonomous vehicles, as well as on introducing new crimes such as 'gross negligence during automated driving on roads'. To date, the report has not resulted in any new legislation.

317 Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.

318 Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information.

319 Swedish Government Official Reports (SOU) 2018:16, *Vägen till självkörande fordon – introduktion,* see https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/03/vagen-till-sjalvkorande-fordon---introduktion accessed 6 July 2020.

6. Is free data access an issue in relation with AI?

Yes, free data access is an issue that relates to AI. Training and using AI requires large quantities of data. One of the main issues preventing free access to data is that there is, as a general rule, little to no IPR protection for data, meaning that data is free to use for anybody with access to it (see question 5). Many companies therefore try to protect data as confidential information and as a trade secret in order to maintain competitive advantage.

Most legislative initiatives to improve free data access have come from the EU. These include the Regulation on a framework for the free flow of non-personal data in the EU,[320] the Open Data Directive, the DSM Directive and Payments Services Directive (PSD2), and the proposed Data Act.[321] The European Commission's data strategy may provide further insights into planned EU legislative initiatives.[322]

Improving access to data relating to AI is important to the Swedish Government. In its national approach to AI, the government states that:

> 'Access to data is the lifeblood of AI and a crucial part of the infrastructure. […] Appropriate frameworks of principles, norms, standards and rules are therefore important prerequisites if Sweden is to realise the benefits of AI in society. Such frameworks must balance fundamental needs for privacy, ethics, trust and social protection with access to the data needed to realise the potential of AI.'[323]

As mentioned above, the Swedish Government is planning to implement the Open Data Directive, which will hopefully improve free access to public sector data related to AI. In March 2022, the proposed act implementing the Open Data Directive was referred to the Swedish Council on Legislation (*lagrådet*). The Swedish Government intends to bring the proposed act into force on 1 August 2022.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

320 Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the EU.

321 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.

322 European Commission, *A European strategy for data, 2020*, see https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf accessed 6 July 2020.

323 Government of Sweden, *National approach to artificial intelligence*, (2018), see https://www.government.se/491fa7/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf accessed 6 July 2020.

To the authors' knowledge, there are not yet any legal cases in Sweden regarding the provision of legal services or other sectors of relevance related to the use of AI.

It should be added that there are few limitations on how legal services can be provided in Sweden, with no restrictions on practitioners not admitted to, or acting under the supervision, of the Swedish Bar Association. Practitioners are generally free to provide legal advice and services, including those given with the help of technology, with potential legal disputes expected to be ruled by the usual civil law legislation relating to contracts and torts.

8. What is the current status – planned, discussed or implemented - of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

As mentioned above, there are generally few regulatory limitations in Sweden regarding the provision of legal services. What is regulated is, generally, the procedures of court and the lawyers practising under the supervision of the Swedish Bar Association (membership of which in general, with a few exceptions, is not compulsory for the provision of legal services in Sweden). What could be expected is an oversight of the Swedish procedural legislation for courts in conjunction with possibility to use AI technology in Swedish courts. A government inquiry has already been made into public authorities' use of AI for making legally binding decisions and how legislation should be adapted.[324]

9. What is the role of the national bar organisations or other official professional institutions?

The Swedish Bar Association has yet to give recommendations specifically on the use of AI technology. The bar association has, however, discussed questions regarding AI in an article its monthly magazine *Advokaten* in issue 4 from 2019.[325] In the article, the bar association made no recommendations for lawyers acting under the bar.

Of related significance are the guidelines on how lawyers under the bar can use external IT services.[326] This may have an impact on the use of AI as many Swedish law firms use 'off-the-shelf' products which are often provided as cloud services. A significant question is, for instance, the storage of confidential information related to clients, where adequate protection must be ensured both from a regulatory

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324 Swedish Government Official Reports (SOU) 2018:25 – *Juridik som stöd för förvaltningens digitalisering*, see https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/03/sou-201825 accessed 6 July 2020.

325 See https://www.advokaten.se/Tidningsnummer/2019/nr-4-2019-argang-85 accessed 6 July 2020.

326 Swedish Bar Association (*Advokatsamfundet*), *Uppdaterad vögledning om användningen av externa IT-tjänster i advokatverksamhet,* (2019), see https://www.advokatsamfundet.se/Nyhetsarkiv/2019/april/uppdaterad-vagledning-om-externa-it-tjanster-vid-advokatverksamhet accessed 6 July 2020.

and technical perspective. This is especially the case where information is stored in countries other than Sweden, as could be the case when Legal Tech service providers are being used by a lawyer or law firm.

In 2021 the Swedish Bar Association provided feedback on the AI Act proposed by the European Commission.[327] The feedback was critical, citing for instance that the regulation has been given too broad a scope. The Swedish Bar Association also identified risks which might lead to discrepancies in application in different EU Member States that could create legal uncertainty, an inappropriate outcome, particularly in light of the severe penalties that can be imposed under the proposed regulation.

327 See https://www.regeringen.se/49eb04/contentassets/59dff9749d5e4cfa8d51146dd026ff62/sveriges-advokatsamfund.pdf accessed 22 March 2022.

The People's Republic of China

Lidong PAN, Reiz Law, Shenzhen/Guangzhou

Shuo LU, Reiz Law, Guangzhou

Rong HU, Reiz Law, Guangzhou

1. What is the understanding or definition of AI in your jurisdiction?

Artificial intelligence (AI) is a branch of computer science or intelligent science that involves researching, designing and applying intelligent machines. The main goal of AI is to study the use of machines to imitate and perform certain intellectual functions of the human brain, while the long-term goal is to use automatic machines to imitate human thinking and intellectual activities.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms, etc), are there already actual AI tools or use cases in practice for legal services?

First, some AI software has been widely used by lawyers in legal practice. For example, 'Fa Xiaotao' is AI software that can assist lawyers in the preliminary search and analysis of a case. Based on the description of the facts of the case, it can analyse and calculate the proportion of winning or losing for similar cases, the number of similar cases involved, the number of similar cases handled in different courts, and the number of similar cases that were successful or unsuccessful and their judgments. 'Fa Xiaotao' uses AI to identify the case, and uses Big Data to retrieve and feedback the above information. To a certain extent, it reduces the pressure of lawyers' analysis and retrieval at the early stage of the case, which helps lawyers to analyse the case more effectively and faster.

Second, some AI software is used in police activities. Typical applications, such as face recognition technology, are widely deployed in densely populated areas, such as airports, stations and squares. They can automatically capture dynamic face images, and compare and verify them with images in public security organ databases. They have played an important role in the investigation activities of public security organs, and have become useful assistants to public security organs pursuing fugitives.

Third, the legal question and answer (Q&A) robot used in court and arbitration commissions. In terms of practical applications, the so-called Q&As are mostly conducted in a fixed mode by clicking the corresponding question, or a relatively professional questioning mode. For some simple cases, the legal Q&A robot helps parties who have not yet commissioned a lawyer to have a simple preliminary understanding of the legal issues related to the case.

In addition, AI software is also used in court proceedings. For example, the 'mobile micro court' program, which was built using AI technology, currently used by courts in many provinces. All functions in this program, such as online filing, online court trial, online evidence cross-examination and online delivery, can be done in a web application. It can enable parties and judges to freely discuss and interact in real time with various message types, such as text, expressions, pictures, voice, geographic location and files in an online courtroom, and can also implement message reminder notification after the parties submit evidence and offline.

There is also AI-assisted legislation. At the stage of soliciting legislative opinions using Big Data technology, legislators actively solicit legislative suggestions through Big Data technology to broaden the ways for citizens to reflect. Citizens should also actively express their opinions through the internet and other means to make legislation truly reflect the democratic and scientific nature. The filing and review of established laws can strengthen the supervision of legislative work and improve the quality of legislation. In addition, AI is used to eliminate conflict between different legal norms and adapt to the needs of the socialist legal system.

3. If yes, are these AI tools different regarding • independent law firms; • international law firms; and • in-house counsel and what are these differences?

Based on the above, AI software has been widely used in Chinese legal practice. In addition to specific software or technology that is only used by judicial institutions (eg, face recognition technology used by public security agencies), other AI software related to law can be provided, including but not limited to independent law firms, international law firms and in-house counsel.

4. What is the current or planned regulatory approach on AI in general?

As far as the current regulatory approach to AI is concerned, China currently provides administrative guidance on AI from the perspective of industrial policy promotion, support and development. The New Generation Artificial Intelligence Development Plan released by the State Council in 2017 highlights this idea.

The Data Security Management Measures (drafting) regulation also regulated the algorithm accordingly. It stipulates that 'network operators using technologies such as big data and artificial intelligence to automatically synthesize news information, blog posts, posts, comments, and so on through algorithms should indicate the word "synthesis" in a significant way'.

On 28 March 2018, the People's Bank of China, China Banking Regulatory Commission, China Securities Regulatory Commission and Foreign Exchange Bureau jointly issued the Guiding Opinions on Regulating the Asset Management Business of Financial Institutions (the 'Guiding Opinions'). The Guiding Opinions regulates the application of AI in the financial field, and carries out penetration supervision of the algorithms of intelligent investment advisers in terms of competency requirements, investor suitability and transparent disclosure.

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

At present, the legal regulations for AI already have individual provisions in the legislation of e-commerce, data security and intelligent investment consulting.

The E-commerce Law stipulates that an e-commerce operator who sells search results of goods or services to consumers based on their interests, consumption habits and other characteristics should also provide the consumer with options that do not target their personal characteristics, and respect and equally protect the legitimate rights and interests of consumers. This is a legal response to Big Data algorithms.

In criminal law, since AI technology belongs to the high-level part of the application of internet technology, in a realistic situation in which AI criminal law legislation has not yet formed, the conceptual understanding of the pre-emptive method of AI criminal law legislation can be combined with the information network in which the current criminal regulations and computer information system crime are carried out. Taking computer information system crime as an example, computer information systems, as one of the main manifestations of AI infrastructure, are also a focus area of new AI crime.

The basic framework of the Personal Information Protection Law (drafting) takes the approach of empowering information subjects and imposing responsibilities on information controllers and processors. On the one hand, legislation must vigorously promote the development and application of AI technology. On the other hand, it must strengthen forward prevention and restraint guidance to ensure safety and controllability.

6. Is free data access an issue in relation with AI?

Since the Personal Information Protection Law of the People's Republic of China (PRC) and Data Security Law of the PRC are still in the process of being reviewed, China still has no clear legal standards for the definition of personal information and data, and how to protect personal information and data through legal provisions. According to current judicial practice in China, court trials of cases related to personal information and data are mainly based on the Tort Law,

Consumer Protection Law, Criminal Law, Copyright Law, Anti-Unfair Competition Law and Information Network Transmission Protection Regulations.

For example, in the case of *Lipeng Pang v China Eastern Airlines and Qunar Company* on infringing personal privacy, the Beijing First Intermediate People's Court made it clear that airlines and online ticketing platforms should be held liable for the leakage of user personal information due to an online ticket purchase. In the case of infringing citizens' personal information by Li Jinbo, Pei Jiahao and Li Guole, that is, using a false loan website to illegally acquire and sell citizen's personal information, Dang Yang People's Court determined that it might affect property safety and it was a serious case that constituted the crime of infringing citizens' personal information. The Shenzhen Intermediate People's Court in the case of unfair competition disputes, such as *Gumi Technology v Yuanguang Technology*, determined that the operator's act of collecting, analysing, editing and integrating Big Data resources with commercial value was protected by the Anti-Unfair Competition Law of the PRC. The unauthorised use of web crawler technology to embezzle Big Data resources and use it to run similar applications constitutes unfair competition. In the case in which the Feilin law firm sued Baidu Wangxun for infringing information networks over communication rights, the Beijing Internet Court determined that the content of the article generated by AI software did not constitute a work, but meanwhile, the court pointed out that its related content could not be used freely. The unauthorised use of the content of the article by Baidu Wangxun constituted copyright infringement.

Therefore, in the context of the current era of Big Data and AI, there are increasing cases of infringement of personal information and data. China has formulated and promulgated the Personal Information Protection Law and Data Security Law, which are of urgent need and meet the needs of the development of the times.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

Throughout current practice, AI used by the court system in the construction of 'smart courts' mainly has the following forms.

The first is the digitisation and datafication of information, that is, the use of technical means to convert non-electronic information, such as voice and paper file text, into reproducible and convertible electronic data, thereby reducing the workload of the judiciary.

The second is the intelligentisation of the case auxiliary system, that is, the use of intelligent means to realise the one-key generation of fixed-format content, such as party information and litigation requests in a judgment document, thereby shortening the time for drafting the document and assisting the judge to improve the quality of the case.

The third is the prediction and supervision of entity referees. Forecasting refers to the AI system's automatic extraction of plot features and intelligent learning of judgment results for a large number of judgment documents, thereby establishing a specific case judgment model. According to the keywords selected by the judge or the facts and plots provided, the statistics of similar cases will be automatically displayed in real time to predict the actual judgment of the case, and more accurate, similar cases will be pushed for the judge's reference.

The fourth is to establish a unified and electronic evidence standard, that is, to summarise the experience through legal Big Data, and embed it in the digital case handling system of the public security, procuratorate and court to regulate judicial behaviour.

Based on the AI technology in the above courts, according to the data published in the 'White Paper on Internet Technology Judicial Application' (2019) issued by the Beijing Internet Court, the total number of legal documents generated by AI technology at the Beijing Internet Court is 117,729, including 4,199 copies of judgments, rulings, mediation and other documents. Therefore, in China's judicial practice, there are already cases where decisions are made through AI technology, and in the future, there will be more courts using AI to assist or automatically generate judgments.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

Currently, there are no planned, discussed or implemented sectorial statutory regulations in China on the use of AI in the legal profession or services that are traditionally rendered by lawyers.

9. What is the role of the national bar organisations or other official professional institutions?

The Ministry of Justice of the PRC is a constituent department of the State Council in charge of judicial administration work within China. It mainly undertakes the following functions:

- formulates guidelines and policies for judicial administration, drafts relevant laws and regulations, formulates departmental regulations, formulates development plans for judicial administration and organises their implementation;
- formulates and organises the implementation of the general knowledge of the popularisation of laws for citizens, guides the legal publicity of various localities and industries, governs the work in accordance with the law and publicises the legal system abroad;

- supervises the work of lawyers and notarisation work, and takes corresponding responsibilities;
- supervises and manages legal aid work nationwide;
- organises the national judicial examination;
- controls the registration and management of judicial appraisers and judicial appraisal agencies nationwide; and
- undertakes other matters assigned by the State Council.

Combined with the New Generation Artificial Intelligence Development Plan released by the State Council mentioned above, the Ministry of Justice will formulate laws and regulations, and ethical standards to promote the development of AI, improve relevant policies to support the development of AI, and establish AI technology standards and intellectual property systems, which will play an important role in promoting the establishment and development of China's AI normative system.

The United States

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1. What is the understanding or definition of AI in your jurisdiction?

There is no single definition or understanding of artificial intelligence (AI) throughout the United States. AI for many is reflected in a spectrum of definitions and understandings, including simple automation and word searches; self-teaching programs, correcting mistakes and improving, and creative responsiveness in terms of making connections; and suggesting lines of research, programmed logic tree responses, affirmative 'deep learning' and initiation. The John S McCain National Defense Authorization Act for Fiscal Year 2019, Pub L 115-232, section 238, 132 Stat 1658 (2018) defined 'AI' as follows for the purposes of certain federal legislation:

- any artificial system that performs tasks under varying and unpredictable circumstance without significant human oversight, or that can learn from experience and improve performance when exposed to data sets;
- an artificial system developed in computer software, physical hardware, or other context that solves tasks requiring human-like perception, cognition, planning, learning, communication, or physical action;
- an artificial system designed to think or act like a human, including cognitive architectures and neural networks;
- a set of techniques, including machine learning, that is designed to approximate a cognitive task; and
- an artificial system designed to act rationally, including an intelligent software agent or embodied robot that achieves goals using perception, planning, reasoning, learning, communicating, decision making, and acting.[328]

It is generally taken that the phrase 'artificial intelligence' was coined by John McCarthy to mean 'the science and engineering of making intelligent machines'. *Science Daily* notes that the 'modern definition' means 'the study and design of intelligent agents' where an intelligent agent is a system that perceives its environment and takes actions which maximizes its chances of success.'[329] Arthur Samuel coined the phrase 'machine learning' in 1959 to mean 'the ability to learn without being explicitly programmed.' Machine learning is therefore a way of achieving AI. Calum McClelland has distinguished between AI, machine learning and deep learning, noting that '[d]eep

328 See www.congress.gov/115/bills/hr5515/BILLS-115hr5515enr.pdf accessed 6 July 2020.

329 See www.sciencedaily.com/terms/artificial_intelligence.htm accessed 6 July 2020.

learning is one of many approaches to machine learning. Deep learning was inspired by the structure and function of the brain, namely the interconnecting of many neurons. Artificial Neural Networks (ANNs) are algorithms that mimic the biological structure of the brain.'[330]

A statutory definition exists within the 'research and development' provisions of the federal service, supply and procurement law:

'(g) Artificial intelligence defined. In this section, the term "artificial intelligence" includes the following:

(1) Any artificial system that performs tasks under varying and unpredictable circumstances without significant human oversight, or that can learn from experience and improve performance when exposed to data sets.

(2) An artificial system developed in computer software, physical hardware, or other context that solves tasks requiring human-like perception, cognition, planning, learning, communication, or physical action.

(3) An artificial system designed to think or act like a human, including cognitive architectures and neural networks.

(4) A set of techniques, including machine learning, that is designed to approximate a cognitive task.

(5) An artificial system designed to act rationally, including an intelligent software agent or embodied robot that achieves goals using perception, planning, reasoning, learning, communicating, decision making, and acting.'[331]

Different states and other agencies may have their own definitions by statute or regulation.

2. In your jurisdiction, besides legal tech tools (ie, law firm or claim management, data platforms etc), are there already actual AI tools or use cases in practice for legal services?

Limiting the response to legal practice applications (and ignoring certain chess and other gaming AI programs), the following areas of practice have involved AI programs. This is not meant to be an exhaustive or all-inclusive list, but to provide a sampling of the range. No endorsement is made of any particular product.

330 See https://medium.com/iotforall/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning-3aa67bff5991; see also https://www.leverege.com/blogpost/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning accessed 6 July 2020.

331 10 USCA s 2358.

Prediction studies

- Arditi and Pulket, Predicting the Outcome of Construction Litigation Using an Integrated Artificial Intelligence Model (2009): using 132 Illinois circuit court cases between 1992 and 2000, a 91.15 per cent prediction rate was obtained with an integrated prediction model (IPM), utilising data consolidation, attribute selection, prediction using hybrid classifiers and assessment.

- Aletras, Tsarapatsanis, Preotiuc-Pietro and Lampos, Predicting Judicial Decisions of the European Court of Human Rights: A Natural Language Processing Perspective (2016): using 584 cases relating to three separate articles of convention, 79 per cent accuracy was achieved using 'binary classification task where the input of our classifiers is the textual content extracted from a case and the target output is the actual judgment as to whether there has been a violation of an article of the convention of human rights'.

Patent applications

- 'RoboReview™ deploys expert bots to automatically review patent applications and amended claims for novelty, patentability, antecedent basis, claim support, term consistency and more.'[332]

Due diligence and contract analysis

- eBrevia (now part of DFIN): 'eBrevia uses industry-leading artificial intelligence, including machine learning and natural language processing technology, developed in partnership with Columbia University to extract data from contracts, bringing unprecedented accuracy and speed to contract analysis, due diligence, and lease abstraction.'[333]

- Luminance: 'reads and understands contracts and other legal documents in any language, finding significant information and anomalies without any instruction.'[334]

- Kira Systems: 'automatically converts files into machine readable form, and then uses machine learning models to identify the concepts and clauses you specify.'[335]

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332 See https://turbopatent.com/roboreview accessed 6 July 2020.

333 See https://ebrevia.com/#homepage accessed 6 July 2020.

334 See https://www.welcome.ai/tech/legal/luminance-smart-legal-platform accessed 6 July 2020.

335 See https://kirasystems.com/how-kira-works accessed 26 April 2022.

Research

- ROSS intelligence: 'With cutting edge NLP technology, pose your research questions like you're talking to another lawyer. Receive pinpoint answers from published and unpublished case law to substantive legal issues in seconds. ROSS is trained to track developments in the law with respect to your legal issues and send notifications with any relevant legal updates.'[336]

- Westlaw and Lexis also employ certain aspects of AI in search recommendations.

Currency

- Artificial Intelligence Coin, or AI Coin: 'a transaction-centric digital currency based on the Bitcoin software. It allows you to immediately complete digital transactions, because similar to cash, there is no wait for confirmation. Its participants cooperate to efficiently process transactions, and fairly share the mining rewards without expensive proof-of-work effort.'[337]

Dispute resolution

- DoNotPay identifies itself as 'the home of the world's first robot lawyer. Fight corporations, beat bureaucracy and sue anyone at the press of a button.' It says the user can 'fight corporations, beat bureaucracy, find hidden money, sue anyone, automatically cancel your free trials.' It features an area where parking tickets can be disputed. It appears to provide forms and suggested questions. Whether or not this would be deemed to be practicing law in unauthorised fashion if offering suggestions for how to fill in and submit appeals is an open issue.

- Adjusted Winner and Smartsettle are algorithms that come to a solution based on input of ranking and values of various factors.

3. If yes, are these AI tools different regarding: (1) independent law firms (2) international law firms (3) in-house counsel, and what are these differences?

336 See https://rossintelligence.com accessed 6 July 2020.

337 See https://aicoin.io/ accessed 6 July 2020.

There are jurisdictional issues relating to what constitutes the unauthorised practice of law. In the US, individual lawyers are regulated and have ethical obligations under their respective codes of professional conduct on a state-by-state basis (including territories). The American Bar Association (ABA) has adopted a resolution that encourages online providers of legal documents to adopt the ABA Best Practices Guidelines that contain provisions regarding what such providers should and should not say about their services.

So-called 'disruptor companies' are more commonly used by in-house counsel to save on costs by enabling certain tasks to be achieved using software instead of newer lawyers, causing concern in some quarters about attorney employment. On the other hand, some argue that lawyers are freed up to do the more substantial work. In any event, lawyers remain responsible for the work product that ultimately bears their names.

Use of AI tools by lawyers remain within the province of ethical considerations, and as with any outsourcing or cloud usage, lawyers remain responsible for ensuring compliance with competence (including certain levels of technological competence necessary to perform their tasks), client confidentiality, role of lawyer as advisor, and supervisory responsibilities.

Other differences between outside counsel and in-house counsel include the cost allocation. As with legal research programs or other such items, the question will be whether this is an overhead or whether a firm's use of such AI may be passed on to the client.

As for so-called international law firms, at least in the US, individual lawyers remain regulated by their jurisdiction, regardless of their affiliation with multinationally based firms.

4. What is the current or planned regulatory approach on AI in general?

From an ethics perspective, there is a view that rules of professional conduct have not kept up. As reported in *Law360* on 24 April 2018:

> 'Despite the widespread adoption of AI tools to conduct contract reviews and legal research, among a host of other tasks, there has been no corresponding uptick in guidance from regulatory bodies on how lawyers can ethically use these increasingly sophisticated tools, according to a panel of corporate legal leaders and legal tech experts at the Association of Corporate Counsel's midyear conference of in-house attorneys […]'

At the national level by Executive Order 13859, issued 11 February 2019, President Trump declared that: '[c]ontinued American leadership in AI is of paramount importance to maintaining the economic and national security of the United States and to shaping the global evolution of AI in a manner consistent with our Nation's

values, policies, and priorities.' Among other things, the Executive Order called for the Director of the Office of Management and Budget, in coordination with the White House Office of Science and Technology Policy (OSTP) and the National Economic Council, as well as consulting with other relevant stakeholders to:

'(i) inform the development of regulatory and non-regulatory approaches by such agencies regarding technologies and industrial sectors that are either empowered or enabled by AI, and that advance American innovation while upholding civil liberties, privacy, and American values; and (ii) consider ways to reduce barriers to the use of AI technologies in order to promote their innovative application while protecting civil liberties, privacy, American values, and United States economic and national security.'[338]

5. Which are the current or planned regulations on the general use of AI or machine learning systems?

In its *Year One Annual Report* issued in February 2020,[339] the OSTP noted examples of federal actions removing barriers to AI innovation. These included steps taken by the Department of Transportation addressing automated vehicles, the Federal Aviation Administration addressing regulations concerning unmanned aircraft systems (UAS),[340] approval by the Food and Drug Administration of AI device for detection of diabetic retinopathy,[341] and a proposed regulatory framework for AI-based software as a medical device.[342] The impact of Covid-19 caused the FDA to readdress its regulatory approach to clinical decision support software, and otherwise, the formation of regulations in this area has been slow but informed.[343]

The 'John S McCain National Defense Authorization Act for Fiscal Year 2019', noted above, required the Secretary of Defense to coordinate the department's efforts 'to develop, mature, and transition artificial intelligence technologies into operational use' with emphasis on 'operational problems and coordinate activities involving artificial intelligence and artificial intelligence enabled capabilities within the Department.'[344]

On 3 February 2022, the OSTP issued an update that emphasised that it continues to coordinate AI activity across the federal government. It noted the passage of

338 See https://www.federalregister.gov/documents/2019/02/14/2019-02544/maintaining-american-leadership-in-artificial-intelligence accessed 26 April 2022.

339 See https://www.nitrd.gov/nitrdgroups/images/c/c1/American-AI-Initiative-One-Year-Annual-Report.pdf accessed 26 April 2022.

340 Presidential Memorandum for the Secretary of Transportation, 25 October 2017, see https://trumpwhitehouse.archives.gov/presidential-actions/presidential-memorandum-secretary-transportation accessed 26 April 2022.

341 See https://www.fda.gov/news-events/press-announcements/fda-permits-marketing-artificial-intelligence-based-device-detect-certain-diabetes-related-eye accessed 26 April 2022.

342 See https://www.fda.gov/medical-devices/software-medical-device-samd/artificial-intelligence-and-machine-learning-software-medical-device accessed 26 April 2022.

343 See https://www.mddionline.com/new-developments-fda-regulation-ai accessed 26 April 2022.

344 See https://www.congress.gov/115/bills/hr5515/BILLS-115hr5515enr.pdf accessed 26 April 2022.

the National AI Initiative Act of 2020, effective 1 January 2021,[345] establishing the National Artificial Intelligence Initiative to ensure US leadership in AI research and development and prepare the workforce for integration of AI systems across the economy and society in general.

States have also begun to enact legislation, relating particularly to automated vehicles.[346]

6. Is free data access an issue in relation with AI?

The United States has no one uniform law or regulation like the EU's GDPR, and in addition to numerous federal laws, there are state laws as well governing privacy considerations.[347] Some are industry specific, such as those dealing with banking or health law.

7. Are there already actual court decisions on the provision of legal services using AI or decisions concerning other sectors that might be applicable to the use of AI in the provision of legal services?

'Artificial intelligence' as a phrase has appeared in over 200 cases, both reported and unreported, throughout the US, but that does not mean the fact of AI itself was a litigable issue. In an interesting non-precedential opinion, a pro se inmate sued for antitrust violations Google, Apple, Oracle, Facebook, Yahoo, YouTube, Instagram, Amazon, Intel, AT&T, Mobil, Occidental, Shell, Standard Oil, Gulf Oil, Sunoco, Phillips 66, Marathon, Texaco, Pennzoil, and Exxon, claiming the high tech and oil companies are in a symbiotic relationship, with the high tech companies using 'oil to build, construct and power their products', and oil companies 'utilize artificial intelligence to facilitate their accounting, business, treasury and corporate functions.'[348] The case was dismissed due to plaintiff's lack of antitrust standing.

In a state court case, the Supreme Court of Pennsylvania ruled that 'CGA is potentially admissible as demonstrative evidence, as long as the animation is properly authenticated, it is relevant, and its probative value outweighs the danger of unfair prejudice or confusion.'[349]

345 See https://www.congress.gov/116/crpt/hrpt617/CRPT-116hrpt617.pdf#page=1210 accessed 26 April 2022.

346 https://www.loc.gov/law/help/artificial-intelligence/americas.php#us

347 See https://iclg.com/practice-areas/data-protection-laws-and-regulations/usa accessed 26 April 2022; see also https://www.varonis.com/blog/us-privacy-laws; accessed 26 April 2022; and https://fas.org/sgp/crs/misc/R45631.pdf accessed 26 April 2022.

348 *Demos v Google*, No 19-CV-04433-HSG, 2019 WL 6341318, at *1 (ND Cal 27 Nov 2019), appeal dismissed sub nom *Demos v Google, Inc*, No 19-17541, 2020 WL 1441425 (9th Cir 23 Jan 2020).

349 *Com v Serge*, 586 Pa 671, 699, 896 A2d 1170, 1187 (2006).

Other issues that are the subject of extensive commentary but no precedential cases as yet involve copyright ownership where the program generates prose or poetry, art or music, or liability where AI is at fault in autonomous vehicles, among others.

8. What is the current status – planned, discussed or implemented – of the sectorial legislation in your jurisdiction on the use of AI in the legal profession or services that are traditionally being rendered by lawyers?

The rules of professional responsibility governing lawyers address AI indirectly. As noted above, there is some sentiment that new rules are needed. Regardless, ABA Model Rule 1.1, requiring competent representation of clients, is informed by a comment that states 'To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.'

ABA Model Rule 1.2 deals with allocation of authority; to the extent that a lawyer will use AI and there is a cost, this needs to be discussed with the client. If the client insists on using a particular software but the lawyer does not trust that product, and it impedes the lawyer's ability to provide competent representation, the lawyer may need to withdraw. This also implicates ABA Model Rule 1.4, requiring the lawyer to 'reasonably consult with the client about the means by which the client's objectives are to be accomplished.' Whether or not the client may be billed for the use of AI implicates Rule 1.5 and the reasonableness of fees; whether AI is treated as an overhead or a cost that may be passed on to the client is an issue. ABA Model Rule 1.6 mandates that the 'lawyer shall make reasonable efforts to prevent the inadvertent or unauthorised disclosure of, or unauthorised access to, information relating to the representation of a client.' The use of AI, particularly where cloud storage or other licensing arrangements are involved, implicate who is using it, who sees the raw data and the results, who has access, and the steps taken to protect the information.

ABA Model Rule 1.4 requires lawyers to communicate with clients regarding their objectives and means to achieve same, which would include discussions as to the risks and benefits of AI in particular circumstances, when such may be used in the course of the client representation. ABA Model Rule 1.6 imposes the requirement of client confidentiality, so that any use of AI must take that into account.

Similarly, use of AI and the cost to the client, as well as its utility with regard to saving lawyer time, may be implicated by ABA Model Rule 1.5 and its requirement that fees be reasonable.

The lawyer as advisor in accordance with Model Rule 2.1 requires the lawyer to take into account various non-legal factors and considerations, such as economics, in rendering advice.

Of particular importance are the lawyer's supervisory obligations, found in ABA Model Rules 5.1 (partners and those with managerial authority) involve reasonable efforts to ensure effective measures to provide reasonable assurance of ethical compliance. Model Rule 5.3 imposes the same standards in engaging non-lawyer assistance. More esoteric issues arise as to whether the use of AI constitutes the practice of law, such that non-lawyers engaging in it are breaking ABA Model Rule 5.5.

9. What is the role of the national bar organisations or other official professional institutions?

Generally speaking, and with limited exception, lawyers, not law firms, are regulated in the US. Bar associations and the regulatory authorities are considering the impact of the definition of legal services and the fact that various entities (sometimes called disruptor companies) are performing what may have been called traditionally 'legal services'. To date, they are not generally regulated. It is suggested that bar associations need to take a broad-minded approach, as the access to legal services – the so-called justice gap – is driving reform in certain jurisdictions, including the use of legal forms and non-lawyer ownership.[350]

350 See, eg, ABA Resolution 115, Encouraging Regulatory Innovation https://www.americanbar.org/groups/centers_commissions/center-for-innovation/Resolution115 accessed 26 April 2022.

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