

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 datasets;
- 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.²⁷⁶

It is generally taken that the phrase 'AI' 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 that maximise its chances of success.²⁷⁷ 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 to achieve AI. Calum McClelland has distinguished between AI, machine learning and deep learning,

²⁷⁶ See www.congress.gov/115/bills/hr5515/BILLS-115hr5515enr.pdf accessed 6 July 2020.

²⁷⁷ See www.sciencedaily.com/terms/artificial_intelligence.htm accessed 6 July 2020.

noting that '[d]eep 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'.²⁷⁸

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.²⁷⁹

Different states and other agencies may have their own definitions by statute or regulation and definitions may differ depending on the purpose of particular legislation.

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

²⁷⁸ See <https://medium.com/iotforall/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning-3aa67bff5991>; see also www.leverage.com/blogpost/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning accessed 6 July 2020.

²⁷⁹ 10 USCA s 2358.

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.

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 a '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'.²⁸⁰

Due diligence and contract analysis

- eBrevia: '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'.²⁸¹
- Luminance: 'reads and understands contracts and other legal documents in any language, finding significant information and anomalies without any instruction'.²⁸²
- Kira Systems: 'automatically converts files into machine readable

280 See <https://turbopatent.com/roboreview> accessed 6 July 2020.

281 See <https://ebrevia.com/#homepage> accessed 6 July 2020. eBrevia is now part of DFIN.

282 See www.welcome.ai/tech/legal/luminance-smart-legal-platform accessed 6 July 2020.

form, and then uses machine learning models to identify the concepts and clauses you specify'.²⁸³

Research

- ROSS Intelligence: 'With cutting edge NLP technology, pose your research questions like you're talking to another lawyer. Receive pinpoint answers from published & 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.'²⁸⁴
- Westlaw and Lexis also employ certain aspects of AI in search recommendations.

Currency

- 'Artificial Intelligence Coin, or A.I. Coin, is 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.'²⁸⁵

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 trial'. 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 an 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.

283 See <https://kirasystems.com/how-it-works> accessed 6 July 2020.

284 See <https://rossintelligence.com> accessed 6 July 2020.

285 See www.ai-coin.org accessed 6 July 2020.

3. If yes, are these AI tools different regarding

- independent law firms;**
- international law firms; and**
- in-house counsel;**

and what are these differences?

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 Practice 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 done by 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 more substantial work. In any event, lawyers remain responsible for the work product that ultimately bears their names.

The use of AI tools by lawyers remains 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, the role of lawyer as adviser 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 overhead or whether use by a firm 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 at least one view that rules of professional conduct have not kept up with new technology. 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 13589, issued on 11 February 2019, the US President 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.’²⁸⁶

Again, regulatory approaches may occur at the national as well as state levels and, regarding the legal profession, within the province of regulatory authorities and the courts.

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 2020,²⁸⁷ 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),²⁸⁸ approval by the Food and Drug Administration (FDA) of an AI device for the detection of diabetic retinopathy²⁸⁹ and a proposed regulatory framework for AI-based software as a medical device.²⁹⁰ The impact of Covid-19 caused the FDA to readdress its regulatory approach to clinical

286 The Executive Order is available at www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence accessed 6 July 2020.

287 The report is available at www.whitehouse.gov/wp-content/uploads/2020/02/American-AI-Initiative-One-Year-Annual-Report.pdf accessed 6 July 2020.

288 See Presidential Memorandum for the Secretary of Transportation, 25 October 2017 www.whitehouse.gov/presidential-actions/presidential-memorandum-secretary-transportation accessed 6 July 2020.

289 See www.fda.gov/news-events/press-announcements/fda-permits-marketing-artificial-intelligence-based-device-detect-certain-diabetes-related-eye accessed 6 July 2020.

290 See www.fda.gov/medical-devices/software-medical-device-samd/artificial-intelligence-and-machine-learning-software-medical-device accessed 6 July 2020.

decision support software; otherwise, the formation of regulations in this area has been slow but informed.²⁹¹

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 an emphasis on 'operational problems and coordinate activities involving artificial intelligence and artificial intelligence enabled capabilities within the Department'.²⁹²

States have also begun to enact legislation, particularly in the area of automated vehicles.²⁹³

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

The US has no one uniform law or regulation like GDPR, and in addition to numerous federal laws, there are state laws as well governing privacy considerations.²⁹⁴ 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?

At the time of writing, AI as a phrase has appeared in over 200 cases, both reported and unreported, throughout the US, but that does not mean that AI itself was a litigable issue. In one interesting but non-precedential opinion, a pro se inmate sued 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 for antitrust violations, 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'.²⁹⁵ The case was dismissed due to the plaintiff's lack of antitrust standing.

In a state court case dealing with computer generated animation (GMA) the Supreme Court of Pennsylvania ruled that 'CGA is potentially admissible as

291 See www.mddionline.com/new-developments-fda-regulation-ai accessed 6 July 2020.

292 See www.congress.gov/115/bills/hr5515/BILLS-115hr5515enr.pdf accessed 6 July 2020.

293 See www.loc.gov/law/help/artificial-intelligence/americas.php#us accessed 6 July 2020.

294 See <https://iclq.com/practice-areas/data-protection-laws-and-regulations/usa>; www.varonis.com/blog/us-privacy-laws; <https://fas.org/spp/crs/misc/R45631.pdf> accessed 6 July 2020.

295 *Demos v Google*, No 19-CV-04433-HSG, 2019 WL 6341318, at *1 (ND Cal 27 November 2019), appeal dismissed sub nom. *Demos v Google, Inc*, No 19-17541, 2020 WL 1441425 (9th Cir 23 January 2020).

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'.²⁹⁶

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 the AI is at fault in autonomous vehicles, among others.

Interestingly, the Ninth Circuit has held that a monkey as a non-human lacked statutory standing under the Copyright Act to sue for infringement of a 'selfie' the monkey took with a camera handed over by a photographer.²⁹⁷ How this will develop in the area of computer artificial intelligence remains to be seen.²⁹⁸

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 utilise AI and there is a cost, this needs to be discussed with the client. If the client insists on using particular software and 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 cost that may be passed on 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

296 *Com v Serge*, 586 Pa 671, 699, 896 A.2d 1170, 1187 (2006).

297 *Naruto v Slater*, 888 F.3d 418 (9th Circuit 2018)

298 See <http://cyberlaw.stanford.edu/blog/2018/05/artificial-intelligence-art-who-owns-copyright-0> accessed 16 September 2020.

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 what steps are taken to protect information.

The lawyer as adviser per 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 violating 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, those entities 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.²⁹⁹

²⁹⁹ See, eg, ABA Resolution 115, Encouraging Regulatory Innovation www.americanbar.org/groups/centers_commissions/center-for-innovation/Resolution115 accessed 6 July 2020.