

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.³⁴⁰

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.³⁴¹ 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

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

341 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.³⁴²

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.³⁴³

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.

³⁴² See <https://medium.com/iotforall/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning-3aa67bff5991>; see also <https://www.leverage.com/blogpost/the-difference-between-artificial-intelligence-machine-learning-and-deep-learning> accessed 6 July 2020.

³⁴³ 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.'³⁴⁴

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.'³⁴⁵
- Luminance: 'reads and understands contracts and other legal documents in any language, finding significant information and anomalies without any instruction.'³⁴⁶
- Kira Systems: 'automatically converts files into machine readable form, and then uses machine learning models to identify the concepts and clauses you specify.'³⁴⁷

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

345 See <https://ebrevia.com/#homepage> accessed 6 July 2020.

346 See <https://www.welcome.ai/tech/legal/luminance-smart-legal-platform> accessed 6 July 2020.

347 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.'³⁴⁸
- 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.'³⁴⁹

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?

³⁴⁸ See <https://rossintelligence.com> accessed 6 July 2020.

³⁴⁹ 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.’³⁵⁰

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 2020,³⁵¹ 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),³⁵² approval by the Food and Drug Administration of AI device for detection of diabetic retinopathy,³⁵³ and a proposed regulatory framework for AI-based software as a medical device.³⁵⁴ 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.³⁵⁵

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.’³⁵⁶

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

350 See <https://www.federalregister.gov/documents/2019/02/14/2019-02544/maintaining-american-leadership-in-artificial-intelligence> accessed 26 April 2022.

351 See <https://www.nitrd.gov/nitrdgroups/images/c/c1/American-AI-Initiative-One-Year-Annual-Report.pdf> accessed 26 April 2022.

352 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.

353 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.

354 See <https://www.fda.gov/medical-devices/software-medical-device-samd/artificial-intelligence-and-machine-learning-software-medical-device> accessed 26 April 2022.

355 See <https://www.mddionline.com/new-developments-fda-regulation-ai> accessed 26 April 2022.

356 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 2021,³⁵⁷ 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.³⁵⁸

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.³⁵⁹ 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.'³⁶⁰ 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.'³⁶¹

357 See <https://www.congress.gov/116/crpt/hrpt617/CRPT-116hrpt617.pdf#page=1210> accessed 26 April 2022.

358 <https://www.loc.gov/law/help/artificial-intelligence/americas.php#us>

359 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.

360 *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).

361 *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.³⁶²

³⁶² See, eg, ABA Resolution 115, Encouraging Regulatory Innovation https://www.americanbar.org/groups/centers_commissions/center-for-innovation/Resolution115 accessed 26 April 2022.