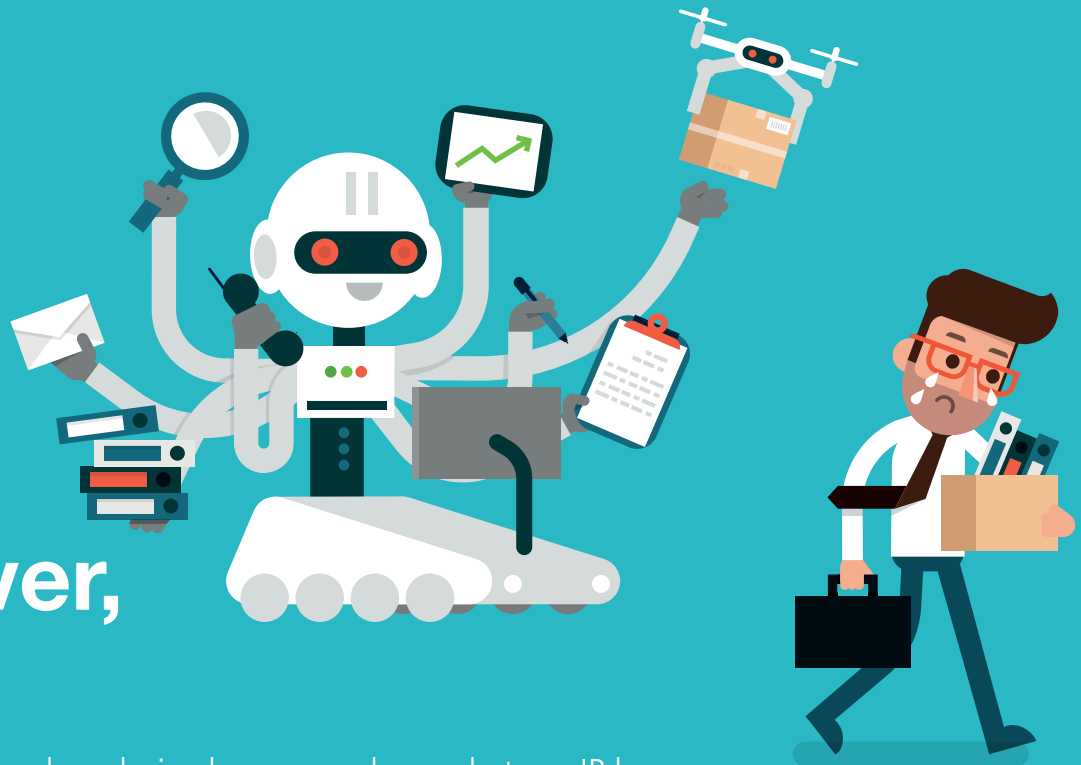


Move over, human

Artificial intelligence is already replacing human employees, but can IP law keep up and can lawyers keep their jobs, asks **Jeffrey H Albright**



Artificial Intelligence (“AI”) is impacting nearly every industry as both public and private companies embrace AI to increase their efficiency and competitive advantage. AI is likely to have a direct impact on the legal community, allowing to make more efficient and better decisions based on almost limitless amounts of data.

Law firms need to recognise how AI is being used by their clients; businesses need to determine how to use AI to ‘keep up’ with their competitors – the implications go well beyond merely protecting IP rights in the form of patents, copyrights, trademarks or trade secrets.

AI was first defined at the Dartmouth Artificial Intelligence Conference in 1956 by Stanford computer scientist and researcher John McCarthy. He proposed a project to find how to make machines use language, form abstractions and concepts, and to solve the kinds of problems ordinarily reserved for humans, and to improve themselves. In 1979, he wrote an article entitled, *Ascribing Mental Qualities to Machines*, in which he said, “Machines as simple as thermostats can be said to have beliefs, and having beliefs seems to be a characteristic of most machines capable of problem solving performance.”¹ The key to these changes largely is based on the difference between AI and automation and the advances being made by the former.

Seven branches of AI

Automation is generally defined as the automatic operation of equipment, a process or a system. It can also refer to the techniques or equipment designed to achieve automatic operation. On the other hand, AI involves machine learning. AI is trained to fulfill tasks, make decisions, and respond in real time to natural language queries. AI is capable of learning by doing, using each experience and outcome to improve its output in terms of accuracy and performance.

Generally, there are seven branches of AI: (1) machine learning; (2) natural language processing (including such actions as classification, contract extraction, machine translation, question – answer technology, etc); (3) expert systems; (4) vision – ie, image recognition; (5) speech to text or text to speech; (6) planning; and (7) robotics.² A quick survey of

recent headlines and publications shows that the technology has moved past “thermostats” with potential direct impact on the legal profession, eg, articles with titles like, *Lawyers Could be the Next Profession to be Replaced by Computers*;³ and *Will a Robot Lawyer Take Your Job? What AI Means for You*.⁴

A 2013 Oxford University Study predicted that AI, related software, and robotics will threaten nearly 40% of all US civilian jobs during the next several decades.⁵ The analysis in the study projected that jobs at risk by country over the next several decades would be: US – 38%, Germany – 35%; UK – 30%; and Japan – 21%. Estimates from more than one source listed above anticipate that AI over the next five years likely would result in a reduction of hours within the legal community of around 2.5% per year. The reduction will be similar to what has happened with discovery, where computer searches largely have eliminated the need for dozens of attorneys to search through mountains of documents.

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Impacts could be far reaching for businesses, as well. Last year, Bill Gates called for the federal government to impose “robot taxes” for companies that opt for technological labour over human hands.⁶ The concept would allow recovery of taxes such as IRS taxes or Social Security taxes that would normally be recovered from salaries paid to people.

The march toward AI in every day law practice and businesses is underway. In May 2017, the legal work product management

company iManage announced that it had acquired the UK platform RAVN. Founded in 2010, RAVN's AI platform can process hundreds of thousands of documents a day, a task that would be impossible for humans to do. As one example, the UK Serious Fraud Office used RAVN to help a team of investigators sift through 30m documents at the rate of more than 600,000 per day, identifying key words and terms and analysing information which was privileged or subject to compliance and automatic document classification for easier search and governance.⁷

AI in the court room

The prediction is that AI will assist in such activities as jury selection or even used in real time by attorneys during trial. Contract reviews and analysis, legal research, and outcome predictions are other areas ripe for AI application. And the role of specific IP associated with AI is evolving. IP patents are generally valid for a period of 20 years from the earliest filing date. However, recent Supreme Court rulings have invalidated several software patents which are crucial to AI tools.⁸ Considerable time, energy and expense is spent in developing AI software programs which might be invalidated or would become part of the public domain well before their normal 20-year expiration.

Alternatively, trade secrets could be used to protect the IP, since trade secrets can be of indefinite duration, provided certain protections of the information are met. Trade secret AI could be made available to both large and small companies, perhaps through confidential licensing agreements.

In July 2017, several fellows of the American Bar Foundation participated in a live discussion with California Supreme Court Justice Mariano-Florentino Cuéllar concerning the integration of AI in the courtroom. There was consensus during that teleconference that we are at a crossroads in technology as to how AI and related IP will be incorporated into US jurisprudence.

As discussed during that conference, federal/state statutes or constitutional amendments may be needed to recognise that AI and related IP have an integral place in the courtroom. Secondly, there are cybersecurity issues. No computer system has absolute security. Keeping information in a company's database confidential or protecting the sanctity of a trade secret licence agreement will be particularly difficult.

Thirdly, can one party who might have access to a RAVN type system simply overwhelm a less well-financed party opponent? Does it require similar investment by a competitor? Conversely, might AI level the playing field in a contested matter between a small company and one that has large resources?

Fourthly, how will AI change the way that people come together and deliberate over an issue? Will the right to confront witnesses and to see the facial expressions and responses of witnesses be overtaken by merely empirical evidence fed into an AI program that determines an outcome in a contract dispute? Will future robots such as MIT's 'Baxter' be used to determine if someone is answering truthfully by monitoring brain signals called "error-related potentials" (ErrPs) that our minds generate whenever we notice a mistake?⁹

Finally, will members in a jury room have access to AI tools, and will they merely have to agree or disagree with the decision of 'the machine?' These and other similar questions need to be resolved with the goal of balancing the ability of technology to assist in the decision-making process while maintaining the human dynamic of dialogue, discussion, and deliberation.

Some of these issues have significant implications outside of the courtroom for both law firms and businesses. An AI tool that analyses all the factual elements of a case could be used to predict an outcome, which could be used to advise clients as to the likelihood of success or failure – and at what cost. Early use of AI might prompt a business to decide not to engage in costly litigation and to proceed to mediation

before huge legal fees are incurred. For law firms, use of AI could prompt large investments in AI IP to maintain the latest and greatest decision-making tools.

For companies that choose not to invest in AI and the IP (or their updates), risks could take the form of falling behind competitors who are using AI tools, or in the legal context, not spending the resources early on in a litigated case to conduct an AI outcome evaluation. For companies involved in complex litigation, failure to invest in AI assessments could lead to potential miscalculations, whether it is in marketing or encountering adverse public relations issues or in losing a major case. In the latter, failure to take advantage of case evaluation AI has the potential to result not only in an adverse outcome, but also could result in derivative shareholder litigation.

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Summary

Companies will need to have AI as integral elements of their competitive strategies. And they should determine the impacts AI will have on their business, both in terms of cost, productivity, and human interface. Key decisions on how to best use AI to promote their products/services will be routine. And businesses both large and small will need to decide how best to use legally-related AI in the event they get involved in litigation.

Footnotes

1. McCarthy, J, Ascribing Mental Qualities to Machines, in *Philosophical Perspectives in Artificial Intelligence*, ed M Ringle, *Humanities Press*, 1979.
2. Goodman, J, *Robots in Law: How Artificial Intelligence is Transforming Legal Services*, (ARK Group, 2016).
3. CNBC, March 2017.
4. *Law 360*, May 2017.
5. Frey, Carl Benedikt and Michael A Osborne, *The Future of Employment: How Susceptible are Jobs to Computerisation?* (University of Oxford, Oxford, OX1, 17 September 2013).
6. Delaney, Kevin J, *The robot that takes your job should pay taxes, says Bill Gates* (17 February 2017).
7. *iManage Acquires Leading AI Pioneer RAVN Systems*, (24 May, 2017), <https://imanager.com/product/ravn/>
8. *Alice Corp v CLS Bank Intl*, 573 US __, 134 S Ct 2347 (2014).
9. Eric Mack, *This MIT robot reads your mind to know when it screws up.* (6 March 2017); <https://www.cnet.com/news/mit-robot-baxter-mind-controlled-telepathy-eeg-daniela-rus/>

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