WILL ROBOTS REPLACE LAWYERS?

HOW ARTIFICIAL INTELLIGENCE WILL CHANGE THE BUSINESS OF LAW

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The idea that robots and machines might one day replace people fascinates and scares many people. Literature, movies and cartoons depict the image of robots that take over control over humankind in a not-so-distant future. The *Matrix* saga, *2001: A Space Odyssey*, *The Jetsons*, among many others have populated the imagination of children and adults for generations. Until the beginning of the XXI century, the subject of artificial intelligence (AI) was confined to the academic world, science fiction, and a few industries. At the end of the last century, Goggle brought AI to everyone's lives in a palpable way. Research at our fingertips replaced long hours in libraries and bookshops.

Today, AI is everywhere, in social networks, in the advertising industry, computer research, development of cars and other machines among so many other things. Computer software is powered by AI engines. Smartphones, computers and laptops have embedded AI. When you lift a smartphone, unlock your phone using face ID or use speech recognition, you are using AI-powered software.

But the AI revolution seems not to have reached the business of law. Of course, lawyers and law firms now use AI in their electronic devices and in computer software, some of which is designed specifically for lawyers, such as document management systems and billing software. But AI has not disrupted the business of law as it has done in so many other businesses.

The changes to the business of law brought about by legal AI technology, the concerns and scepticism of lawyers call for a discussion about the role of legal AI in the future and if some or all of the lawyers' tasks will be replaced by legal machines.

First, let us define AI. According to the Encyclopaedia Britannica "*artificial intelligence (AI) is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings*". AI is the ability to simulate the logic of an algorithm by a machine. An algorithm is a finite sequence of defined instructions used to perform a computation. Algorithms are used as specifications for performing calculations, data processing, automated reasoning, automated decision-making and other tasks. AI gives machines the ability to perceive a given environment and to take actions to achieve the goals set by the machine's program.

To some lawyers, this is impossible, at least for the more complex legal matters, because the business of law, whatever its shape and form, lives around "words". From the dawn of history, enacting and enforcing laws has revolved around the use of "words". Rhetoric and grammar have always been at the core of all legal professions. Words may be ambiguous and have multiple meanings depending on the context and order in a sentence. The interpretation of words appears to be a purely human activity.

However, due to its "prescriptive" nature, the Law implies simple deductive reasoning processes, which makes it ideal for AI "coding". Putting it simply, the Law is not immune to AI; on the contrary, the Law is an ideal field for AI.

The good news for today's lawyers is that we are far from the day when AI will take over their business. For that to happen, we must "code legal thought".

To code legal thought one needs to create the processes that will allow machines to interpret laws, contracts and court decisions, which seems still far on the horizon because "words" and "sentences", the matter of law, have many meanings, many times elusive, and open to manipulation by legislators, the politicians that make the laws, lawyers and even judges, who are no more than humans and, therefore, have sentiments, opinions and convictions to which they hold strong. Right and wrong are not clean-cut, are not yes and no, are not a series of 0s and 1s.

Yet, legal thought can and will be software coded in the not-so-distant future.

This is how it will happen. Firstly, AI will replace lawyers and other legal practitioners in the review of documents. Document review systems use machine learning technologies and pattern recognition technology to identify key contract concepts, tag clauses, court decision patterns, flag discrepancies and other patterns in the application and interpretation of laws and contracts, etc.

Lawyers are still needed to interpret the data coming out of computer systems and attribute meanings to those discrepancies and patterns. The machine will learn from the human lawyers' interpretation, build new models, discern potential risks, etc.

Existing computer programs, like Luminance or Kira, already successfully help lawyers to conduct due diligences and provide advice to clients.

The second stage of legal AI will affect how courts prepare their rulings. AI-powered research systems already give judges and lawyers access to legal precedents concerning the specific subject matter of the case. In the future, AI will enable judges to narrow down the key elements of their decisions and offer them a roadmap for the decision-making process. Let us take a simple court decision such as determining if the court has jurisdiction over a particular matter that is put to it. Legislations around the world have a clearly defined set of rules for determining courts' jurisdiction, which can be coded in computer language, that is, in an algorithm.

Some software systems, such as Lexis+, offer court decisions analytics and help lawyers to assess the likelihood of success of cases based on past decisions.

Future legal algorithms will help legal professionals to determine if matters follow into one legal category or another and how the law will be applied in specific cases. This will be one step away from determining the application of legal rules. Again, taking a simple example, if someone goes into another person's property and it was not entitled to do so by law, such action falls under the legal concept of trespassing. These tasks will be done with an increasing degree of complexity, eliminating false positives, the application of conflicting rules and rights, the existence of exculpatory reasons to dismiss the application of a certain rule and the choice for another prevailing rule.

Many lawyers will argue that doing law has some specific features, such as the interference of sentiments and beliefs, which make it a non-computable task. AI can probe into statistics and the cold walls of legal statutes - they will say - but not into the hearts and minds of real people.

This is the wrong approach to legal AI. There are two areas where legal AI will struggle to master: an upper layer of present laws with their cultural, sentimental and political veneer that cover the law's core rules. This veneer will be cleaned up by more powerful algorithms and the rationality of legal algorithms, uncovering a simpler and, therefore, fairer set of rules free of many of their present inconsistencies and conflicts.

As far as lawyers are concerned, legal technology and, in particular, AI systems will change the way they work but will require all of their ingenuity to interpret the complex legal issues that are needed to power legal AI. Lawyers and law researchers will have to break down the questions embodied in existing laws, contracts and legal precedents to map the AI systems of the future. Lawyers will also have to understand how to introduce queries into AI-powered systems and interpret the results brought to light by AI, formulate legal strategies and create legal documents, such as court briefings, contracts and opinions.

Legal AI will empower lawyers and clients. Legal AI will create faster and more efficient ways of completing all legal tasks. This is the case of knowledge management, documentation analysis, contract drafting, litigation review, preparation of court briefings. Legal AI will release lawyers from many repetitive and standardised tasks.

AI will disrupt the business of law. AI will lead to the disintermediation of legal services as it is now doing in other business sectors. In finance, for example, centralised exchanges will have to compete with the blockchain-enabled trustworthy peer to peer (P2P). The same will happen with many existing legal services. The traditional legal services will only be provided by lawyers when a trusted confirmation or reliable advice cannot be found in other sources.

Many lawyers view the disintermediation of other business sectors as unwelcome news, unaware that automated legal services have already taken a chunk of their old business. Automated services now offer many services that were exclusively provided by lawyers and paralegals a few years ago, such as invoice collections, automated contract drafting is now offered to business consumers and for low-value contracts. It is foreseeable that in the medium to long term, many legal services will be taken over by machines.

All legal professions will benefit from AI. Lawmakers will make better laws; judges will issue fairer judgements; lawyers will be able to perfect their court pleadings to a higher degree of efficiency and practicality. Many conflicts will be solved before being taken to courts because the odds, that is, the likelihood of success, will be against one of the parties in a clearer way, prompting that party for a settlement or simply to avoid litigation.

AI will not replace lawyers, but it will radically change the way lawyers provide services.

Legal thinking must remain in the sphere of lawyers because inside the core of all laws live values and values are non-computable. Values cannot be reduced to the mathematical formulations of algorithms. The creation and the application of law must, in the end, be made by humans and for humans.

Law is a science and a technique, but it is also an art and therefore cannot be reduced to mere algorithms. This is the limit of legal AI and the limit to any AI-powered technology.

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Since the incorporation of the firm in 1996, we have been involved in several high-profile transactions in all of the firm's fields of practice, including banking and finance, capital markets, corporate and M&A, energy, real estate, project finance, complex disputes and restructurings.

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