



MENU



# Lawyers could be the next profession to be replaced by computers

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Technology is often blamed for destroying traditional working-class jobs in sectors like manufacturing and retail.

But blue collar jobs aren't the only ones at risk.

The legal profession — tradition-bound and labor-heavy — is on the cusp of a transformation in which artificial-intelligence platforms dramatically affect how legal work gets done.

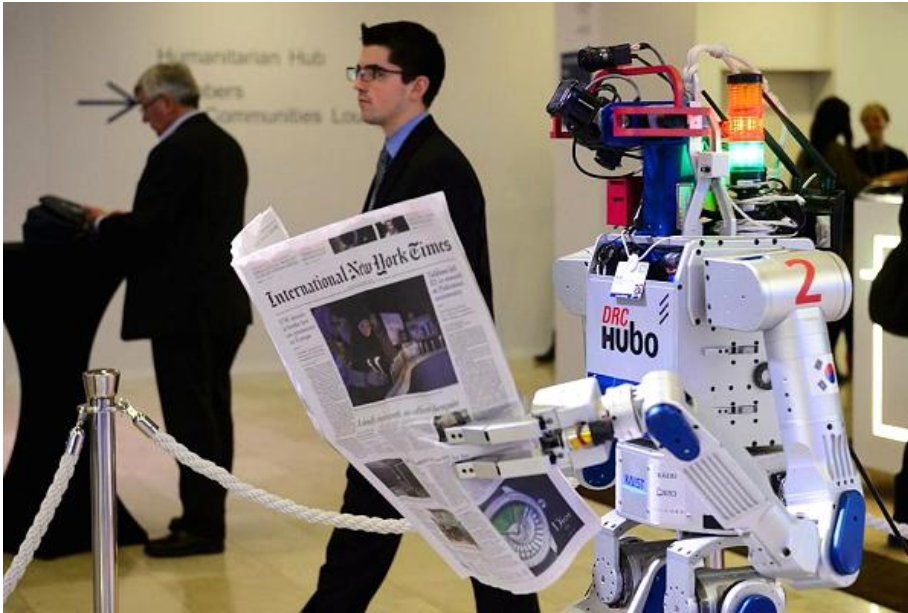
Those platforms will mine documents for evidence that will be useful in litigation, to review and create contracts, raise red flags within companies to identify potential fraud and other misconduct or do legal research and perform due diligence before corporate acquisitions.

Those are all tasks that — for the moment at least — are largely the responsibility of flesh-and-blood attorneys.

Increasing automation of the legal industry promises to increase efficiency and save clients money, but could also cut jobs in the sector as the technology becomes responsible for tasks currently performed by humans.



the sector's labor force as the technology drives costs down and makes legal services more affordable to greater numbers of people.



Fabrice Coffrini | AFP | Getty Images

"It's like the beginning of the beginning of the beginning," said Noory Bechor, CEO of [LawGeex](#), a leading AI-powered platform for legal contract review.

"Legal, right now, I think is in the place that other industries were 10 and 15 years ago, like travel," he said.

## Replacing drudge work

Bechor's transition from lawyer to AI advocate came as a result of his own experience working at a large law firm in Israel.

"I did a lot of contract work for small companies, as well as for investors and multinational companies," he said.

The work was drudge-like and often almost mechanical.

These five industries are being  
revolutionized by AI





"For me, it was mind-blowing that I needed to reinvent the wheel each time I needed to create a contract or each time I needed to review a contract."

And, "I was feeling this pain, day in and day out, working these crazy hours," he said.

But Bechor also began realizing that as he reviewed more and more contracts, he became better at doing the tedious work.

"You get the hang of it," he said. "You have it in your head what a contract should and should not contain."

"That's what convinced me that a significant part of this could be automated," Bechor said.

The LawGeex platform, he said, "can take a new contract, one that it's never seen before, read it and then compare it to a database of every similar contract that it's seen in the past."

Like other AI platforms, LawGeex also learns from each review it performs — just like Bechor and other humans in the profession learned to do as young lawyers.

## What machines do better than people

One question raised by the introduction of AI legal platforms is how well they do their jobs compared to a flesh-and-blood lawyer, who has years of experience under her belt.

Will the machine miss things that a good lawyer with a lot of experience would otherwise catch? Proponents don't think so.

"That's an argument that been refuted quite a bit," said Jay Leib, founder and managing member of [NexLP](#). Leib's Chicago-based company offers eDiscovery, an AI platform that searches documents for information relevant to lawsuits and other litigation.

"Can you miss anything? Sure," Leib said of AI legal tools.

"But since 1985, we've known that human beings are not very good at keyword searches," he said. "There's this fallacy that human beings looking at documents is the gold standard. Not true. They're missing things."



Today makes it hard for human workers to keep up.

"There's just so much more data now that you need these technologies to boil the ocean for you" and find relevant material, Leib said.

Leib said NexLP is "not just looking at the text" of a document or email. "It's looking at the tone of the conversation, who sent it," to see if the item should be flagged for review in litigation, he said.

Leib also pointed out that computers "don't get tired, they don't get hungry, they don't sleep in."

"All of the things that are biological problems that can happen to a human being can't happen to computers."

The big international law firm Reed Smith recently put that question to the test with RAVN ACE, the AI platform from [RAVN Systems](#). Reed Smith had RAVN conduct a review of hundreds of pages of documents.

"We took a deal that we'd already done, which we'd done manually," said Lucy Dillon, chief knowledge officer of Reed Smith. "And we put it through the RAVN system to see how it compared. And it compared very favorably."

Dillon said the RAVN platform "didn't always get it right" when asked to identify and pull out certain items in contracts. But lawyers were able to add information to their queries and improve their results.

Plus, the platform "picked up some things that we had missed" when humans did their first review of the documents, she said. "The system had high levels of accuracy. And it was a great tool to use."

And the RAVN was faster than its human counterparts. Much faster.

"We're talking minutes versus days," Dillon said.

## Large firms beginning to get on board

The legal sector has been slow to change, technologically or otherwise.

But that's changing as firms, particularly larger ones, begin to see the advantage of AI.

[ROSS Intelligence](#) makes a legal research platform based on IBM's cognitive computing system Watson, which is being used by a number of the world's biggest law firms, including Dentons, as well as Latham & Watkins.



company is working with lawyers from every type of organization — in-house, big, medium, small, solo [practitioners] — as well as law schools and bar associations."

He noted that his company's still young platform "is already saving 20 to 30 hours of research time per case" for its clients.

Leib of NexLP noted at "about 70 percent of the cost of discovery" — the process of exchanging information that is relevant to a legal case or review — "is human cost, people looking through documents and emails and all different things."

"If we could reduce that from 70 percent to 2 percent, we're looking at dramatic cost savings," he said.

"That's just money back in the hands of corporations and business," Leib said. "It really attacks the bottom line."

Leib believes that customers rather than partners will determine how quickly law firms adopt AI platforms.

"I think companies are going to demand that their firms use these technologies because they're not going to want to pay these fees" for having humans sift through vast amounts of documents, Leib said.

Asked when he thinks AI will be in use broadly across the legal industry, Leib said, "I think the time frame here is between 2020 and 2025."

Bechor of LawGeex said that the current lack of widespread adoption of AI by law firms has the effect of keeping prices high in the legal sector, for now.

"There is a cost to this inefficiency," Bechor said.

"Legal is now considered a premium product," he said. "It's not something that a lot of people and businesses can afford."

## **"If you can't beat 'em..."**

If AI solutions become pervasive, law firms may cut staff.

A [Deloitte Insight report](#) released in 2016 said that "profound reforms" will occur in the legal sector over the next decade, estimating that nearly 40 percent of jobs in the legal sector could end up being automated in the long term.



**Susceptible are jobs to computerisation:** suggests that lower-level employees at law firms are more likely to feel the effects of downsizing as a result of AI technology — at least in the near term.

"We find that paralegals and legal assistants .... [are] in the high risk category," the paper's authors wrote.

"At the same time, lawyers, which rely on labor input from legal assistants, are in the low risk category," the authors wrote.

Bechor from LawGeex agrees.

"There's a romantic notion of AI being able to replace all lawyers," he said. "I don't see that as something that will happen in the next couple of years."

Arruda of ROSS Intelligence is even more optimistic, believing that AI will increase the total number of jobs in the legal profession.

"I think we will see a rise of more jobs in the legal market" as a result of AI," Arruda said. "At the firms where ROSS is at, we see more work being done, more clients being able to be served, and therefore not a decrease in staff, but an increase in productivity and output."

He also saw another benefit.

"At present," Arruda said, "the majority of individuals who need a lawyer cannot afford one. Yet on the other hand, [many] law graduates are saddled in debt and cannot find work."

Leib and Arruda also dismissed concerns that the expansion of AI in the legal sector would make it more difficult for young lawyers to acquire necessary experience through brute-force gruntwork.

"Theoretically, attorneys can be more efficient from day one because of the technology," Leib said.

Arruda said, "This question gets asked a lot when new technology comes out. Think of the calculator, for example."

"But I think it's the wrong question, really," Arruda said. "The activities that AI excels at are not [the ones people] typically excel at — think data retrieval."

Perhaps the best take came from Sofia Lingos, a lawyer and board member of the Legal Technology Resource Center of the American Bar Association. Last year at a [roundtable discussion](#) hosted by the



afraid or encouraged by artificial intelligence.

"Both," Lingos answered.

"It is wise to embrace it now so that it can be a tool as opposed to an impediment. No one wants to be competing against Watson," Lingos said, referring to IBM's cognitive computer system.

"But if you can't beat 'em, join 'em!"



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Reporter

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