

FT Series **Artificial intelligence in real workplaces**[Show articles](#)**Law****Artificial intelligence closes in on the work of junior lawyers**

'Lawtech' sifts and summarises data with speed and precision to replace routine tasks



Former solicitor Daniel van Binsbergen at his lawtech start-up offices in London's Shoreditch © Anna Gordon/FT

MAY 4, 2017 by: Jane Croft

After more than five years at a leading City law firm, [Daniel van Binsbergen](#) quit his job as a solicitor to found [Lexoo](#), a digital start-up for legal services in the fledgling “lawtech” sector.

Mr Van Binsbergen says he is one of many. “The number of lawyers who have been leaving to go to start-ups has skyrocketed compared to 15 years ago,” he estimates. Many are abandoning traditional firms to pursue entrepreneurial opportunities or join in-house teams, as the once-unthinkable idea of routine corporate legal work as an automated task becomes reality.

Law firms, which tend to be owned by partners, have been slow to adopt technology. Their traditional and profitable model involves many low-paid legal staff doing most of the routine work, while a handful of equity partners earn about [£1m a year](#).

But since the 2008 financial crisis, their business model has come under pressure as companies cut spending on legal services, and technology replicated the repetitive tasks that lower-level lawyers at the start of their careers had worked on in the past.

“The 2020s will be the decade of disruption,” says Professor Richard Susskind, co-author of [The Future of the Professions: How Technology Will Transform the Work of Human Experts](#). He believes there is growing demand from executives who control corporate legal budgets to cut costs by taking advantage of the savings offered by technology.

Mr Van Binsbergen, 32, whose natural entrepreneurial streak meant he was “the guy in school selling candy bars”, is embracing the change. Lexoo does not automate legal work, but it does cut out the traditional law firm by using data and algorithms to match prices from experienced and self-employed lawyers with work for mid-size companies. Solicitors with appropriate skills

quote a fixed price for a piece of work.

For their part, law firms are gradually introducing technology. At Berwin Leighton Paisner, a UK firm, for example, staff use an AI system when they work on certain property disputes. The system was developed by Ravn, a legal technology start-up, which extracts data from official title deeds produced by the UK Land Registry. The software checks these details so they can serve legal notices on the correct property owners in real estate cases.

In the past, BLP would have pulled together a small team of junior lawyers and paralegals at short notice, then put them in a room to extract that data manually from hundreds of pages — a process that could take weeks. The Ravn system reviews and extracts the same information in minutes.

“We get AI to do a bunch of things cheaply, efficiently and accurately — which is most important,” says Wendy Miller, partner and co-head of real estate disputes at BLP. “It leaves lawyers to do the interesting stuff.”

Ravn was set up in a London living room by four friends, none of whom had worked as lawyers. Its Shoreditch offices are full of engineers of millennial age working on laptops. Inevitably, there is a ping-pong table and a chillout zone with pub tables and a darts board.

[Ravn’s technology](#) searches largely unstructured data to retrieve and summarise specific information. The legal sector was a perfect customer, says Jan Van Hoecke, its co-founder, because it was “document-intensive — and has very expensive people looking at documents”.

Linklaters, the global law firm, uses LinkRFI, a technology program that sifts 16 UK and European regulatory registers to check client names for banks. It can process thousands of names in hours. A junior lawyer would take an average of 12 minutes to search each name, according to the firm.

Slaughter and May, another London firm, uses AI technology from [Luminance](#), a start-up backed by Autonomy founder [Mike Lynch](#) to help its mergers and acquisitions lawyers plough through thousands of documents they have to review when analysing target companies in deals.

Luminance’s machine-learning technology means, at a keystroke, lawyers can see all the governing law in clauses within global sales contracts, for example, and identify legal wording that differs from the norm. Sally Wokes, a partner at Slaughter and May, says Luminance can halve the time spent on due diligence. “It cuts out work that people find the least interesting and does not cut out analysing the results and looking at importance of transactions and relevant details which client cares about,” she says.

So far, firms say, technology has not meant job losses. But Prof Susskind believes a wave of lay-offs is to come — law firms are still experimenting with AI instead of rolling it out across their offices.

About [114,000 legal jobs are likely to be automated](#) in the next 20 years, a 2016 study by Deloitte predicted. Technology has contributed to the loss of about 31,000 sector jobs. The report predicted another 39 per cent of jobs were at “high risk” of being made redundant in the next two decades.

Meanwhile, technology continues its march, transforming the antiquated world of law courts. In the US, [Lex Machina](#), a start-up

acquired by Lexis Nexis in 2015, crunches data about court rulings to analyse types of cases filed and examine past successes, replacing work that is normally done by newly qualified lawyers. In the UK, proposals from the Civil Justice Council, which oversees civil courts, include an online court for consumers to deal with low-value money claims.

But some legal roles will not be replicated by technology.

“In litigation I can see that developments in AI may lead to improvements in the search process in disclosure and in the preparation of some documents,” says Philip Marshall QC, a commercial barrister. “But where judgment is required — for example in written advocacy — I doubt there is much scope for it. The human touch and knowledge of the likely reaction of the tribunal is at a premium.”

So far, AI lacks the creativity, cunning and empathy of a human lawyer. In the US, law firms using automated software to issue mass debt collection notices without them being reviewed by lawyers have been criticised by the courts because evidence and details have not been properly verified.

But investors sense an opportunity in lawtech. According to CB Insights, a data intelligence platform, there were 67 deals last year [investing \\$155m into lawtech start-ups](#).

For now, legal services providers are happy about tech disruption. Introducing AI into the work of junior lawyers is allowing them to do more interesting work, their bosses say.

“In our old method . . . staff would be working for long hours doing the data extraction, and human error will always creep in,” says Ms Miller of BLP.

But Prof Susskind cautions that true technological disruption of legal services could take a generation — until the current crop of equity partners at leading firms retires. “It is very hard to convince a room of millionaires they have their business model wrong,” he says.

This article has been amended to update the name of Linklaters’ technology program

At law school: Universities tap into lawtech

US law schools, which have seen a drop in student admissions to a level not seen since 1973, are helping fledgling lawyers to gain an edge in the tough jobs market by incorporating technology such as computer coding into their curriculum.

For the past six years, [Georgetown University](#) Law Centre in Washington, DC has hosted Iron Tech Lawyer, a competition where students compete to develop legal apps.

Stanford University in California set up CodeX — the Stanford Center for Legal Informatics — in 2008. The centre is a network for people who want to harness technology to improve the legal system.

The University of Miami, meanwhile, runs Law Without Walls, a project that matches students from 30 law and business schools around the world with academic or business mentors.

They collaborate to create a viable project — a prototype and business plan for a legal start-up — that

solves a legal problem.

This could include a business plan for a [start-up](#), or designs for new ways to enforce arbitration.

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