Making the case for analytics

▶ ⋎ INCUBATORS

law to trademark and copyright litigation as well. Is that just the culture of the enterprise or is it the need to stay ahead of the market? "The answer is both," Lemley says. "Good innovators always want to make things better. And if you're not making your product better, you're going to get left behind."

With the resources of LexisNexis at its disposal, the company is determined to expand beyond IP into other areas of federal civil law and eventually state law, CEO Josh Becker says.

Also in the works is a tool that could send a chill down the spine of some litigators. "We ought to see some more interesting data-driven analysis on attorneys and law firms," predicts Lemley.

THE INCUBATION

Today Lex Machina is run by CEO Becker, chief evangelist and GC Owen Byrd, vice president of products Karl Harris and about 20 other executives and employees. Lemley was a member of Lex Machina's board of directors until the LexisNexis acquisition.

Lemley dreamed up the project at Stanford in 2006 as the legislation that would one day culminate in the America Invents Act was starting to heat up. "There were all these crazy claims flying

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t's taken less than 10 years. Lex Machina has gone from a gleam in the eye of Stanford law professor Mark Lemley to popular academic database to standalone company to part of the LexisNexis legal research empire.

Last month's acquisition validates Lex Machina's vision of using quantifiable measures to assess intellectual property cases, judicial proclivities and lawyer tactics. So do the moves of other legal search companies into the patent analytics space.

Docket Alarm founder Michael

Sander credits Lex Machina with helping educate lawyers on the value of legal analytics. "Many clients are now coming to expect their outside counsel to support their judgment and intuition with data, even if their attorneys ultimately disagree with the data," Sander said. "That demand is definitely something that Lex Machina has been instrumental in creating, which has in turn helped our own product."

Even while blazing the trail, Lex Machina has been continually reinventing its products and itself, having just this year expanded from patent

NUMBER CRUNCHERS: Josh Becker and Owen Byrd of Lex Machina, a Stanford-born startup that mines patent filings for actionable insights.

around," Lemley recalls. "'Patent trolls are 50 percent of all patent lawsuits.' 'No, they're only 5 percent.'" But there was no source of empirical data to settle those disputes.

Lemley's Stanford colleague Joseph Grundfest had created the Securities Class Action Clearinghouse some years earlier to track filings in those cases. "I thought, 'Great, we should do something similar in patent law.'"

Joshua Walker, the founder of Stanford's CodeX Center for Legal Informatics, ran the project. They faced immediate challenges. Securities class actions numbered about 150 a year, while about 5,000 patent suits were being filed in venues all around the country, each with its own data idiosyncracies. "The scale of the project was much greater than we had ever imagined," Lemley says. Collecting and parsing the data would have to be done by machines, not people. Walker brought

in George Gregory, a specialist in natural language processing, and researchers from Stanford's Artificial Intelligence Laboratory.

The IP Clearinghouse raised $3.5 million from Stanford and a handful of

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law firms, companies and foundations. Along the way Lemley had a conversation with Robert Litan of the Kaufman Foundation. "He said, 'You've got a company here. This is something people would pay for,'" Lemley recalls.

The IP Clearinghouse was spun out as Lex Machina in 2010. "What people have seen," Walker said at the time, "is only about 2 percent of what we're going to offer."

COMPETITION BREWING

Litan was right. Law firms pay a lot of money—as much as $50,000—for the best patent-related research tools. Many of them are focused on prior art searches or portfolio analysis. But others have pushed into Lex Machina's patent litigation space. Docket Navigator, which launched about a year after Lex Machina, now offers an analytics tool. Sander's Docket Alarm predicts outcomes at the Patent Trial and Appeal Board based on judge, technology area, law firm and party name. RPX Corp. made much of its powerful search tool available to the public for free last year.

Wilson Sonsini Goodrich & Rosati IP partner James Yoon puts Lex Machina to use in a variety of contexts. For example, it may not make economic sense to take on a case if analytics show the opponent usually settles within a couple of months of filing suit. Yoon can take into account data about the court, the judge, opposing counsel and the parties when weighing whether a to file a stay motion, a motion to transfer, or even for summary judgment. "Lex Machina is very useful that way," he says.

Yoon prefers Lex Machina to Docket Navigator, though he anticipates some convergence over time. Lex Machina is "more friendly to the data jocks and is now trying to be more for the great masses," whereas Docket Navigator started out more intuitive

and is increasingly competing for power users. "Both companies seem to be trying to capture what the other is doing," he said.

Lex Machina's Byrd said he doesn't see a competitive threat. "We don't have any direct competitors," he says. Other companies may be improving searches for case law, "but we're doing analytics about the people and organizations involved in the legal ecosystem," he says.

Even if there's no competitive threat, Lex Machina has had to overcome the natural resistance of attorneys to substitute data for their judgment. Newegg General Counsel Lee Cheng says he considers Lex Machina's data very useful. "That said, I think the data and the analytics have to be utilized very judiciously," he says.

Suppose Volkswagen of America had looked only at legal analytics before asking the Fifth Circuit to transfer *Singleton v. Volkswagen* out of the Eastern District of Texas, he says. "They would have been told it was a completely futile motion," and the Fifth Circuit might never have reset the law of transfers, he says.

Another patent litigator who asked not to be named said Lex Machina can only be as accurate as the source of its data, which is the federal courts' PACER system. As one example, PACER often attributes orders from magistrate judges to the Article III judges who assigned them the cases.

It's clear Byrd has heard these sorts of criticisms before. Lex Machina, he and Becker like to say, is like Moneyball for lawyers—just one tool for more informed decision making. Even with analytics, "you can't field a winning baseball team without a manager who holds years of baseball wisdom," he says.

He agrees PACER data is often messy, but "one of our value-adds is we clean it up," he says. Lex Machina hasn't rolled out analytics for magistrate judges yet. "It's something we continue to work on."

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> Lex Machina

THE INNOVATION MACHINE

Lex Machina always seems to be working on something new. In the first three years after being spun out from Stanford, the company raised an additional $7.5 million in venture capital. Becker came on board as CEO and brought Byrd and others with him. Walker returned to private practice while Gregory started several new ventures, though both remained on the Lex Machina advisory board.

Harris, the VP for products, came aboard in 2012. He and a team of 14 engineers revamped the analytics platform to create a more nimble development process. "That was a big deal," says Byrd. "What Karl and his team turned it into enabled us to go big, fast."

Lex Machina has since rolled out analytics products on case timing, damages, individual motions, among many others. Last month it rolled out "custom insight apps" designed to make legal analytics more accessible. Harris convenes weekly meetings with customers, like Yoon, who offer feedback on improving the tool.

In Valley speak, Byrd says, Lex Machina is "crossing the chasm" from early adopters who understood the platform's value immediately to everyday litigators. Earlier this year the company moved beyond patent litigation to copyright and trademark. Now it has trained its sights on all federal civil law, and Lemley foresees a tool that will help lawyers and clients track a litigator's success over the arc of his or her career, even when moving from law firm to law firm.

"I think legal technology is just exploding," Lemley says. Lawyers have always been behind the technology curve and Lex Machina, he says, is perfectly positioned as the industry plays catchup.

Soon those 5,000 patent cases a year the company initially processed will mushroom to about 240,000 federal civil cases. That will be a challenge, but Lex Machina—literally, the law machine—is up to the task, Byrd says.

"Machine learning is just as it sounds," he says. "Every night the machine crawls these documents, it gets a little smarter."