

IT'S NOT JUST ABOUT  
FINDING A DENTIST



IT'S ABOUT FINDING  
YOUR DENTIST.

# TEXAS LAWYER

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## Rise of the Machines: Using Big Data to Make Better Decisions

Harnessing big data could reveal the best case strategy or even predict the outcome. While that may be rare now, some firms are using big data for a less esoteric purpose: setting accurate fee estimates for their clients.

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Lawyers have always gathered and analyzed data to minimize risks for their clients.

But in the era of big data, algorithms and data-analysis applications could make it possible for lawyers to be more like fortune-tellers. Harnessing big data could reveal the best case strategy or even predict the outcome. While that may be rare now, some firms are using big data for a less esoteric purpose: setting accurate fee estimates for their clients.

Seth Chandler, a professor at the University of Houston Law Center, has used data analytics in his own research. It's based on a technology called machine learning, in which computers use advanced mathematical algorithms to compare hundreds or thousands of variables within a database.

"What machine learning is really good at is finding patterns in data that human beings cannot see," said Chandler.

Josh Blackman, assistant professor at South Texas College of Law, said he thinks lawyers could use predictive data analytics to assist in their decision-making.

"It's still the lawyers making decisions. But they can make decisions using better information," Blackman said.

### Predicting the Future

Joshua Walker is a cofounder of Lex Machina, a predictive analytics tool backed by massive data on intellectual property cases. In its early stages, Walker sat in a room full of lawyers and computer scientists, reading thousands of filings in IP cases. He and his colleagues assigned codes for everything that happened in the litigation: the type of claim, the legal arguments, wins, losses and more.

Then, the technology learned from the lawyers and it took over, following the "rules" the lawyers developed in order to read and code the documents itself.

Today, companies and firms can subscribe to Lex Machina and search the data.

Walker, now counsel at Simpson Thacher & Bartlett in Palo Alto, said he often uses predictive data analytics in his practice. He can more accurately budget for a case by examining the time that similar cases took to resolve. When hiring expert witnesses, Walker said he examines other cases where the expert testified and tries to determine the person's impact on the court or the jury.

Walker can research a judge, notice he never accepts certain legal arguments, and decide—with his client's input—to spend more time crafting arguments more likely to succeed.

"As a litigator, you have to do this now. The standard of care requires you to look, to some degree, at these types of questions," said Walker.

Antony Ng, chairman of the State Bar of Texas Computer and Technology Section, said he's not aware of any Texas lawyers or firms using predictive data analytics.

"I think it's not prevalent in Texas," said Ng, an IP lawyer and member of Yudell Isidore Ng Russell in Austin.

#### **Accurate Alternative Fees**

While predictive data analytics may still be rare in the legal world, there are firms using big data on billings to help set alternative fee arrangements for their clients.

Chris Emerson, director of practice economics in Bryan Cave in St. Louis, said his firm wrote its own applications.

When a client wants a fixed fee for a matter, Emerson said he searches a database that catalogs the characteristics of past cases, looking for a sample of similar matters. He also studies a seven-terabyte financial "data warehouse." Emerson uses the information to determine the work hours involved and the proper baseline fee.

Another application examines data from the firm's billing system. When lawyers enter their time, they write something to describe their work. The application reads the descriptions and assigns codes to tasks. When pricing a new matter, Emerson can see how long specific tasks usually take.

"Our pricing estimates, our budgets, are much more accurate than they ever were before," said Emerson.

Eric Hunter has compiled data on Worker's Compensation cases that his firm handles for insurance companies and major employers. Hunter, director of knowledge, innovation and technology strategies at Bradford & Barthel in San Diego, said he uses existing applications such as Google BigQuery or Tableau Software to analyze the data.

Since the technology enables the firm to offer workable alternative fee arrangements, it frees lawyers from being "billing machines" and allows them to focus on lawyering, said Hunter.

"We can be much more valued for what we do, as opposed to the time metric attached to it," he said. "It's challenging the entire concept the legal industry is built on: time."



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