Replacing Lawyers With Computers

Contributed by John Browning
Tue, Sep 4, 2012, 07:10 AM

In Johnny Cash’s great song “The Legend of John Henry’s Hammer” (inspired by American folklore hero/railroad worker John Henry), one of the great man vs. machine showdowns takes place. Accepting the railroad boss’ challenge that he can’t outpace the latest in technology, a steam drill that threatens the railroad workers with obsolescence, “steel-drivin’ man” John Henry defiantly proclaims

“A man ain’t nothing but a man
But if you bring that steam drill ’round, I’ll beat it fair and honest
I’ll die with a hammer in my hand
But I’ll be laughing, because you can’t replace a steel drivin’ man

Although we’ve become accustomed over the years to technological improvements making things better, faster, cheaper, and putting entire classes of jobs on the endangered list (run into any blacksmiths lately?), it nevertheless is a shock to the system when technology invades the realm of professional judgment. Imagine, then, the controversial prospect of using computers to analyze legal cases, craft arguments, and decide whether, where, and how to file a lawsuit. Will databases jampacked with information and algorithms predicting what will happen render trial lawyers like me as obsolete as John Henry? That day may be closer than you think.

The field of “quantitative legal prediction” combines databases with algorithms that can analyze variables, identify patterns and factors that affect outcomes, and then predict those outcomes. One company, for example, is Lex Machina, a startup that originated from the IP Litigation Clearinghouse at Stanford University. Lex Machina uses its database to analyze settlement patterns and win rates. To do so, it first had to accumulate a vast amount of information, and so today its database contains information from 128,000 intellectual property cases, along with records from 63,000 law firms, 134,000 attorneys, 64,042 parties, and 1,399 judges, spanning the past decade. But data alone is not enough; Lex Machina’s co-founder, Joshua Walker, estimates that it took a team of engineers and lawyers about 100,000 hours to correctly categorize, tag, and code the information.

Since a company’s intellectual property often represents a significant portion of its value, corporations invest a great deal in obtaining and protecting things like patents. However, patent litigation is expensive—some studies have concluded that the average cost to take a patent infringement case to trial is as much as $5 million. That’s where quantitative legal prediction comes in, says Walker. For a fee, Lex Machina will crunch the numbers and provide a client with insight into costs, win rates, settlement patterns, etc. Walker believes that this technology will “revolutionize how corporate finance looks at litigation,” and will significantly impact how companies value and manage their intellectual property portfolios.

Another company trying to realize the potential of this technology is TyMetrix, a vendor of electronic billing and case management systems for corporate law departments. TyMetrix’s data warehouse boasts information accumulated from $25 billion in legal spending, and the company uses analytical tools to mine that information and help forecast legal costs. For example, a general counsel at a given company can better manage legal costs with an analysis that incorporates variables like the size of the law firm, its geographical location, the attorney’s title and years of experience, and his or her specialty area. Yet predictions are only as good as the amount and quality of the data on which they’re based. To be as accurate as possible, you have to collect vast amounts of data. Even TyMetrix is limited, since it gathers only certain types of information, and only from clients who have opted to share that information.

The legal profession has been quietly moving toward a greater reliance on technology for some time. Large, complex cases spawned the e-discovery industry, and within the e-discovery field “predictive coding” uses algorithms to analyze large quantities of documents (but not necessarily all) and predict which ones are likely to contain information relevant to a given case. For years, trial lawyers (myself included) have made use of courthouse and private databases to research verdicts and reported settlements in order to help assess the potential value of a lawsuit, or to study what juries in a given locale have historically done. But is lawyering in danger of being reduced to mere actuarial formulas? Daniel Katz, a professor at Michigan State University College of Law who has studied the impact of technology on the practice of law, says predictions made by computers are “not going to end lawyering . . . but I definitely think some percentage of tasks that lawyers do are going to be replaced by machines and/or technology.”

I’m not ready to bow to our robotic overlords just yet. Sure, I research verdicts to help me evaluate a case, and I bring my laptop or iPad to trial to have all kinds of information at my fingertips, just a few mouseclicks away. But as far as I’m concerned, there’s no substitute for the cumulative experience of a seasoned trial lawyer who’s stared down countless witnesses or looked into the eyes of hundreds of jurors over the years, and the insight that comes from doing that. All the technology in the world can’t substitute for reading the “tells” of a shaky witness, or the body language of the jurors. So, I guess I’ll go out like John Henry, with my hammer—or at least my legal pad—in my hand.