All Rise for Chief Justice Robot!

By [Sean Braswell](#) JUN 072015

It was 10 years ago and John Roberts' confirmation as the next chief justice of the U.S. Supreme Court was practically in the bag. But that didn't stop him from adding a little drama to the proceedings. Gazing up at the members of the Senate Judiciary Committee, most of them long of tooth and benevolently disposed, Roberts opened his remarks with a metaphor that would soon become famous. "Judges are like umpires," he declared. "Umpires don't make the rules; they apply them. … It is a limited role."

His plea for judicial restraint pleased some observers, irritated others and left many looking for answers. But nowadays, it does something else, like make you wonder whether the chief justice was just ahead of the curve.

Across the legal world automation has taken off, and probably a lot more than most people realize. When you think of litigation, you might think of musty robes and stern judges interrogating high-priced attorneys, courtrooms where smartphones are checked at security. Even the stenographers don't use tape recorders, though they've been around for more than half a century. And yet automation — from artificial intelligence to machine learning — has actually cut deep into the legal services industry. Already, data analytics are on the scene, as well as a new generation of legal scholars and court watchers who use computer algorithms, crowdsourcing and other analytic methods to guess at, and increasingly second-guess, judicial outcomes.

So with the Supreme Court about to issue its long-awaited decisions on gay marriage and Obamacare, the question is, will we be rising for Judge Robot, instead of Justice Roberts, someday? After all, if being an appellate judge, as Roberts suggests, is really just a matter of calling balls and strikes — interpreting a statute, reasoning from precedent, or applying the law in a limited, mechanical fashion — then the gig looks increasingly ripe for automation, something that could be performed better by a computer, and without political or personal bias, age or infirmity, or ugly confirmation battles. Other professions, from factory workers to stockbrokers, have learned that the better the world gets at simulating the outcome of your labors, the more redundant you start to appear. Could the nation's highest court, along with any appellate court charged

with reviewing the application of the law instead of determining the facts, be fairer and more faithful to our founders if a modern-day version of HAL were striking the gavel?

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For as long as there has been a Supreme Court, lawyers and legal scholars have tried to divine its rulings, leaning heavily on their most valued source of authority: themselves. But, as Theodore Ruger, a law professor at the University of Pennsylvania, and his colleagues at The Supreme Court Forecasting Project first showed in 2004, a decent statistical model easily trumps the experts. The Project's model looked only at the court's 2002-2003 term and focused on judicial ideology, conservative or liberal. It correctly predicted outcomes 75 percent of the time, far better than the experts, who managed 59 percent — not all that much better than tossing a coin.

More recently, Josh Blackman, a professor at the South Texas College of Law who started FantasySCOTUS (as a joke), and colleagues have built a more sophisticated model. It correctly predicts about 70 percent of case outcomes, and forecasts accurately 71 percent of votes of individual justices since 1953, representing more than 68,000 justice votes across Supreme Courts from several eras. The algorithm behind the model uses more than 90 variables, including judicial ideology, but also case specifics like what the cause of action is, who the parties are and the lower court from which the case originated.

Forecasting whether the Supreme Court will affirm or reverse a lower court ruling — using, among other factors, the justices' human biases — may seem a far cry from supplementing the justices altogether, but such prediction models are just the tip of a larger, artificially intelligent spear pointed at the court, and the broader legal services market as a whole. "What IBM's Watson did on *Jeopardy!*," says Blackman, "our model aims to do for the Supreme Court" — which is to say, predict outcomes far better than humans could.

As Nicholas Carr explores in his recent book, *The Glass Cage: Automation and Us*, advances in artificial intelligence and automation, from IBM's Watson to Google's self-driving cars, have put "elite" white-collar professions — including doctors, lawyers and investment managers — into the path of the robot. Computer algorithms, for example, are increasingly capable of reviewing vast amounts of text and data, identifying correlations, reasoning toward decisions,

making accurate predictions and replicating what Carr calls "deep, specialized, and often tacit knowledge."

Big data has also hit the legal services industry. In recent years, law firms have discovered that predictive coding algorithms can handle electronic document review much more cheaply than a junior associate — and produce more accurate results. Lex Machina, a startup founded by Stanford law professors and computer scientists, uses data analytics to help companies and law firms not only to predict judicial outcomes and favorable forums, but also to craft entire legal strategies around their intellectual property interests. Could such technology one day substitute for the judgments of courts themselves?

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During their Senate confirmation hearings, most Supreme Court nominees certainly do their very best impression of robots. Partly this is self-preservation through obfuscation, aka the desire not to "get borked" like the verb's outspoken namesake, Robert Bork, did in his unsuccessful 1987 confirmation hearings. But what Roberts' umpire metaphor and other confirmation performances really appeal to is the public's fear of bias — a desire to constrain judicial discretion and ensure neutrality as far as possible. Thomas Jefferson himself shared this fear; he advocated ending "the eccentric impulses of whimsical, capricious designing man" and letting "the judge be a mere machine."

The mechanical impulse also helps explain the draw of "originalism" — the constitutional philosophy followed by Justices Antonin Scalia and Clarence Thomas that emphasizes the original meaning of terms used by the men who drafted and ratified the Constitution — as well as a "textualist" approach to statutory interpretation to determine the plain, objective meaning of a statute. Not unlike an iPhone salesman, Scalia preaches ease-of-use and predictability, often observing that his judicial approach is "easy as pie," the result dictated by the law, and not by the judge. Originalism's appeal reflects the American reverence for the founders, as well as discomfort with legal gray areas, says Daniel Urman, the director of Northeastern University's Doctorate in Law and Policy program: "We like answers, not endless arguments."

In many ways, a computer like Watson — constrained by logic, uncontaminated by human experience and with immediate access to archives of legislative history, contractual terms and case law — makes for the ideal originalist or

textualist. Take, for instance, *King v. Burwell*, the case now before the court about the Affordable Care Act, whose main controversy involves the meaning of the law's phrase "established by the state." A computer could quickly, but comprehensively, plumb the text of the act to determine the term's probable meaning.

And even if you take the more liberal view of a "living Constitution" — one that evolves over time and requires an evolving jurisprudence to match — you are unlikely to be safely above a computer's pay grade. Just as a Nest thermostat can learn your habits, computers today use machine-learning techniques like neural networks and decision trees that allow them to dynamically model emerging relationships among pieces of information and learn from prior outcomes and new data points. "Today's computers get smarter as they gain experience," writes Carr, "just as people do." Besides, if given the choice, which neutral decision maker would you trust to have its finger on the pulse of contemporary values and public policy interests: a gray-haired justice living a relatively cloistered life or a computer with access to an infinite array of polling data, news stories and research?

Whatever your constitutional philosophy, Justice Robot offers the promise of justice that is truly blind, that objectively applies the law equally to all citizens without error, bias or ideology. And yet, the question lingers. Even if we are capable of building a judge that is, in Jefferson's words, a "mere machine," do we really want to?

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The debate over whether judges should serve as machines/umpires recurs in American jurisprudence. Proponents of legal formalism in the 19th century argued that legal analysis was an objective, deductive process capable of delivering the "right" answer. Later jurists like Justice Oliver Wendell Holmes Jr., as well as so-called legal realists argued that objectivism was impossible. "The life of the law has not been logic," Holmes famously said. "It has been experience."

And when it comes to the biggest cases reaching the Supreme Court itself, "let's not kid ourselves," says Larry Kramer, a constitutional scholar and former dean of Stanford Law School. "The law, such as it is, ran out of guidance or anything resembling an incontrovertible answer long before any of the justices reached

their result in these cases." That's why cases run up the chain of *certiorari*, from a trial judge to an appeals court and on. Had there existed a concrete, objectively discernible answer to a legal problem, the cases would not land on the Supremes' docket.

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That's why Kramer argues that any computer answering an indeterminate area of the law would need to use some agreed-upon criteria to begin with — and that criteria would inevitably be man-made, based on human experience. A computer court would either shift the responsibilities to programmers — the human beings who write governing algorithms — or would be "leaving cases to be decided arbitrarily," Kramer says: randomized jurisprudence. How would we decide which judicial philosophy to encode into our robot justices, and how could we ensure the programs were not as opaque as the Google search algorithm or a coached nominee's confirmation responses?

More importantly, as Blackman notes, "even if we could successfully engineer mechanical judges, would the litigants accept our new Supreme Court robot overlords?" Especially for the court's more momentous decisions — *Brown v. Board of Education*, *Roe v. Wade*, *Citizens United* — it's not just the outcome of a case that matters. It's the court's rationale. Published opinions sometimes seek to persuade citizens or demonstrate empathy with them, and that reasoning often informs future debates. For example, the importance of the court's 2003 decision in *Lawrence v. Texas* would have come much differently had it mechanically reversed its prior holding in *Bowers v. Hardwick*, which upheld the criminalization of sodomy, and not included Justice Anthony Kennedy's proclamation that "Bowers was not correct when it was decided, and it is not correct today."

Such determinations are not a matter of calling balls and strikes. Laws are made by humans, they affect humans and their application is unavoidably a human endeavor. And even the Supreme Court, much as we would sometimes prefer to think otherwise, is not a *deus ex machina* but a collection of fellow citizens in black robes. Fallible, biased, misguided — and irredeemably human.