

iWitness

# HOW ARTIFICIAL INTELLIGENCE IS REVOLUTIONIZING THE LEGAL PRACTICE

PAIGE E. KOHN

The author is with Vorys, Sater, Seymour and Pease, Columbus, Ohio.

Artificial intelligence (AI), or the ability of a computer to complete intelligent tasks normally performed by people, has been a trending topic in the law lately, and for good reason. It has the ability to completely transform how lawyers work. AI has already been used for years with e-discovery platforms, but can AI also be used in another key area of litigation, legal research? Even further, can it ultimately replace attorneys conducting these tasks? To address these questions, I interviewed various thought leaders in the legal industry to determine the state of the art on AI usage and its potential for use in litigation.

Two companies in particular—ROSS Intelligence and Thomson Reuters—are both using Watson, a cognitive technology, to enhance legal research. Owned by IBM, Watson became famous for beating former human *Jeopardy!* winners in 2011. Watson has been busy in the legal industry. ROSS is working to make Watson an “artificially intelligent attorney” that you

can ask a question, much as you do with Google’s search engine; it then generates results based on legal sources such as legislation and case law. The searching is based on natural language processing (NLP), not keywords. While reading online that ROSS is currently collaborating with the global law firm Dentons through NextLaw, the law firm’s research and development subsidiary, I asked Andrew Arruda, ROSS cofounder and chief executive officer, whether they had branched out. He replied that they have begun commercializing, and one of their first partners is BakerHostetler.

Thomson Reuters Legal entered into a partnership with Watson in October 2015. While that was less than a year ago, I figured it might be interesting to see what was happening on the ground. Unsurprisingly, Watson results are still in development, but there are other resources that are currently available. Mick Atton, chief architect, emphasized that AI has been used to enhance Thomson

Reuters legal research products since the early 1990s.

Mike Dahn, global head of Westlaw Product Management, stated that one of the company’s best-known legal research products, Westlaw, relies on two AI concepts in particular: NLP and machine learning. As an example, Dahn remarked that WestSearch, which is the search engine of the company’s updated legal research product called WestlawNext, was designed to mimic the behaviors of expert researchers, including actions such as selecting, foldering, sharing, or printing a case. Further, according to Dahn, the system is composed of a collection of learning-to-rank algorithms that were trained on legal content, metadata, and user behavior. In January 2016, the company also launched recommender systems to help customers finish research faster. These new tools analyze usage patterns during the session and make recommendations mid-session or within Westlaw folders. At the end of the day, Dahn reflected, “our enhancements in recent years represent a significant leap forward, but we’re far from done.”

Khalid Al-Kofahi, vice president of research, also noted that WestSearch, which was launched in 2010, represents a “significant leap in scale and complexity in applications of natural language processing, machine learning, and information retrieval.” That said, Al-Kofahi is very focused on the future. “Our ultimate objective is to develop smart machines that truly understand the legal domain, the task, and the user—machines that enable more robust and natural interactions with the user, not just to respond to user input but also to proactively support the user in the research task. Such a general-purpose machine is probably years away,” Al-Kofahi added, “our partnership with IBM Watson will accelerate our solution development. So, stay tuned.”

I next turned to LexisNexis to see what was currently operational or in development. In November 2015, LexisNexis



acquired Silicon Valley-based Lex Machina, which currently uses artificial intelligence for intellectual property litigation purposes. Brian Howard, a legal data scientist at Lex Machina, provided some interesting insight. According to Howard, “AI has transformed the legal field in a variety of ways, from predictive document coding systems for large document productions during discovery, to the kind of sophisticated NLP used by Lex Machina to provide analytics for district court litigation.” Howard added that these approaches are more effective at identifying patterns than traditional methods of legal research. He noted that “Lex Machina has automated systems that clean, classify, and structure the raw data to produce actionable insights—like the average time to termination for a set of those cases in a particular district—with only a few clicks.”

More specifically for intellectual property litigators, these tools could provide

attorneys with strategic insight to craft winning intellectual property strategy, win cases, and close business. These tools can help with potential acquisitions by allowing attorneys to quickly review relevant litigation. What is important for those fearful of being replaced by AI or wary of its effectiveness in sensitive tasks, Howard notes they can relax because this kind of automation is targeted to eliminate the tedious tasks, allowing lawyers to perform high-level work that requires human judgment—and that is more enjoyable.

Finally, I turned to Bloomberg, with Darby Green, Bloomberg Law’s commercial product director for Litigation Solutions, as a source. Bloomberg created a product called Smart Code, which has “revolutionized annotated code by developing an algorithm that identifies paragraphs within cases that cite a particular statute or rule and then scores them with a strong,

moderate, or weak rating.” For litigation strategy, their Representation Analytics tool tracks which law firms are representing which companies in federal litigation.

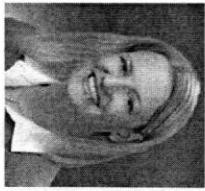
More tools are on the horizon as well. Green commented that Bloomberg is currently building a judicial analytics tool that will provide predictive litigation analytics that will answer questions for a given judge, such as what is the likelihood of success of a particular motion type, how long it might take for a particular type of case to resolve, and how often has that judge been affirmed or reversed. “These are the types of questions that have plagued lawyers and their clients for years, and we’re harnessing technology to unearth the answers,” she added.

Further, Green mentioned that Bloomberg is also developing a machine-learning-based tool aimed at transforming the legal research process. It identifies legal standards and expressions of law within court opinions—called legal principles—extracts them, and connects them to related legal principles from other opinions.

Several tools out there employ AI to benefit the litigator’s research needs. For large law firms wanting to go out on an innovation limb, teaming up with ROSS Intelligence could enhance legal research by making the process quicker and generating more targeted results. Attorneys who specialize in intellectual property litigation might consider using Lex Machina to strengthen litigation case strategy. Those seeking more traditional, yet forward-thinking programs could use Thomson Reuters or Bloomberg Law to augment typical legal research. And these are just the current tools. More are on the horizon, so it is only likely to get better. Attorneys concerned about being replaced by AI need not fret because based on these thought leaders, AI is being developed not to replace attorneys but to help them. ■

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## Paige E. Kohn

### Associate

Offices **Columbus**  
 Phone **614.484.5425**  
 Fax **614.719.4626**  
 Email **pekohn@vorys.com**

#### EVENTS

The E-Discovery Process from Four  
 Different Perspectives  
**INSIGHTS**  
 How Artificial Intelligence is  
 Revolutionizing the Legal Practice

#### PRACTICE AREAS

Litigation

#### EDUCATION

Capital University Law  
 School, J.D., 2010 *cum  
 laude*, Order of the Curia

*Capital University Law  
 Review*, Executive Research  
 Editor, 2009-2010; Staff  
 Member, 2006-2009

The Ohio State University,  
 B.A. 2004, with honors and  
 distinction

#### BAR & COURT ADMISSIONS

Ohio  
 U.S. District Court for the  
 Southern District of Ohio

Public Service and Public Policy, and completed the Washington, D.C. program for undergraduates.

Before coming to Vorys, she developed experience in transactional law, and has drafted documents related to incorporation, particularly LLCs and corporations, such as operating agreements.

Paige has a strong interest in community service and *pro bono* legal services. She has participated in a variety of initiatives such as the Volunteer Guardianship Program - Lawyers for Justice, which provides legal assistance in guardianship proceedings, and The Legal Aid Society Housing Project, which assists tenants facing evictions.

#### Events

#### Insights

Paige is an associate in the Vorys Columbus office and a member of the litigation group. She has a broad background in litigation, and has worked in both the private and public sector. She has extensive experience in e-discovery matters, including identification of responsive materials, composition of privilege logs, analytics and familiarity with review platforms like Viewpoint and Relativity. Paige has drafted a wide variety of litigation documents, such as those related to motions for summary judgment, and provided general support through deposition digests, client intake, status reports, research and analysis.

#### Her notable experience includes:

- Providing discovery support and expertise in complex litigation involving antitrust claims by major U.S. retailers against payment card networks
- Conducting fact investigations, performing e-discovery, and providing litigation support for a major lawn care corporation involved in a class action lawsuit
- Performing e-discovery on a wide variety of legal matters including antitrust for health care and pharmaceutical companies, employment discrimination and data breaches
- Serving as a staff attorney for Judge Michael J. Holbrook in the Franklin County Common Pleas Court and extern for Judge Edmund Sargus in the U.S. District Court, Southern District of Ohio

Paige is a member of the American and Columbus Bar Associations.

She regularly writes articles on legal trends such as e-discovery, social media and alternative billing. Paige has been published in the *Columbus Bar Lawyers Quarterly* and *Columbus CEO*.

Paige received her J.D. *cum laude* from Capital University Law School, where she was the executive research editor of the *Capital University Law Review* and member of the Corporate Law Moot Court Team. While a law student, she studied international law at the University of Oxford in England. She received her B.A. with honors and distinction from The Ohio State University. Paige was active with the John Glenn Institute for