

5-2017

Artificial Intelligence: Legal Research and Law Librarians

Mary Ann Neary

Boston College Law Library, maryann.neary@bc.edu

Sherry Xin Chen

Boston College Law School, chenez@bc.edu

Follow this and additional works at: <http://lawdigitalcommons.bc.edu/lspf>

 Part of the [Legal Education Commons](#), [Legal Profession Commons](#), and the [Legal Writing and Research Commons](#)

Recommended Citation

Mary Ann Neary and Sherry Xin Chen. "Artificial Intelligence: Legal Research and Law Librarians." *AALL Spectrum* 21, no.5 (2017): 16-20.

This Article is brought to you for free and open access by Digital Commons @ Boston College Law School. It has been accepted for inclusion in Boston College Law School Faculty Papers by an authorized administrator of Digital Commons @ Boston College Law School. For more information, please contact nick.szydowski@bc.edu.

ARTIFICIAL INT

LEGAL RESEARCH AND LAW LIBRARIANS

BY SHERRY XIN CHEN & MARY ANN NEARY

The law librarian's
role in teaching and
implementing AI
best practices.



INTELLIGENCE

Artificial intelligence (AI) and its legal practice applications are grabbing headlines in the legal industry. Ever since the early success stories of IBM Watson, the legal press has been buzzing with articles that debate whether AI is a threat or hope and whether AI will transform, disrupt, revolutionize, or even remake the legal industry. *AALL Spectrum* previously featured two articles about AI (“Hand in Hand with IBM Watson” by Jean O’Grady and “Artificial Intelligence: Not Just Sci-Fi Any More” by Mark Gediman)—both articles demonstrate the progression of AI. O’Grady’s article discusses possible efficiencies with contract negotiations and M&A’s augmented by AI tools, while Gediman focuses on legal analytics tools such as Lex Machina (now owned by LexisNexis) and how they are powering improved search capabilities. As such, law firms have embraced and implemented these AI applications and others. Now it’s time to focus on the law librarian’s role regarding AI applications in legal research and aiding practitioners in minimizing potential risks due to AI utilization.

Challenges Presented by AI Implementations in Legal Practice

Law firms have embraced AI applications in the document review area. While document review processes have been targeted for automation by various vendors in the past, AI applications

enhance the process. Enhanced document retrieval is possible with AI because an attorney now teaches a specialized software program how to flag documents containing certain terms or metadata. With repeated use, the program learns more sophisticated review techniques and becomes more adept at returning relevant documents. Similarly, AI applications are deployed by firms in M&A work to analyze thousands of documents in the context of due diligence. The promise of reducing repetitive work and minimizing workloads may improve access to justice as more practitioners’ time is freed, allowing them to represent individuals requiring legal assistance. At the same time, the efficiency leads to an impact on a law firm’s bottom line since associates will report fewer billable hours. A recent McKinsey study estimated that 23 percent of attorney time consists of tasks that can be automated (see the McKinsey Interactive Infographic at bit.ly/MJ17McKinsey).

If AI works well with a closed universe of document retrieval and document analysis, how well can AI perform in the larger legal research arena? Further, will legal research tasks become part of the 23 percent of attorney time subject to automation?

Beyond document review, AI has been used to generate legal memos. This logical extension of AI legal research tools has been developed by IBM’s Watson project in the form of ROSS Intelligence. An artificial intelligence program, ROSS has been

pre-loaded with a corpus of bankruptcy law and trained to produce a basic memo on issues in bankruptcy law. Implemented by BakerHostetler LLP and von Briesen & Roper, this AI tool generates legal research citations and the explanatory language in a memo. This memo creation certainly releases new associates from routine tasks. Yet, where does the ethical duty to supervise come into play when an automated process generates the memo? Attorneys can rate the memo as positive or negative and prompt the system to refine the results, but there still needs to be a review process; ROSS developers considered the memo function to be in its early stages as of September 2016. Compounding the memo generation question is the issue of what knowledge base serves as the basis for the memo. Who in the firm knows how recently the AI corpus was updated—has it “read” the opinion released by a bankruptcy judge in the last 48 hours? Is the AI searching a

corpus that includes bankruptcy orders as well? Will relevant federal local court rules be pulled and incorporated into the memo? This is where the roles of the law librarian and the practitioner must overlap in AI implementations.

Building the Corpus of an AI System

Legal research systems incorporating AI are built, not bought as turn-key systems. AI legal systems are built by loading a corpus of source material. Whether in a law firm, a private enterprise, or a law school incubator program, this involves loading files of public domain legal authority. Ravel Law and Harvard Law School's Caselaw Access Project reached a milestone on January 27, 2017, scanning all U.S. case law. This data forms the basis of Ravel's database.

Librarians are trained to build collections, whether virtual or physical, and the construction of an AI corpus can be strengthened with law librarian input.

Librarians know their constituencies' information needs. Librarians in law firms and in corporate special libraries have in-depth knowledge of the sources required for successful practice in those settings. As Gediman pointed out in his article, the legal applications of AI systems require constant feeding of current and relevant information. Law librarians, as information professionals with a unique understanding of users' search habits, goals, and available data, can help the institution tailor the application and maximize the benefits of the AI system. Moving forward, law librarians need to ensure that administrative law is included in the corpus of law loaded into all AI systems. Firms and incubators alike need to work with regulatory materials, including administrative decisions, to be effective practitioners and promote compliance.

Due to licensing restrictions, secondary sources will be missing from law firms' AI systems. Westlaw and LexisNexis, however, now use search engines employing AI features for their intuitive retrieval systems. Searches in these commercial research systems will pull from the entire database content, including administrative law sources and secondary sources. Librarians acting in an instructional role, whether in firms or academic/incubator settings, need to alert new practitioners about the need to review and understand what content is available in their institution's own AI system. Currently, many associates and law students are encouraged to begin a search in secondary material to gain background knowledge of a practice area or legal issue. Depending on where practitioners start their search, whether in a proprietary legal research platform or a firm's AI research system, this advice will vary.

Taking On an Instructional Role

AI systems are an example of cognitive computing; these applications can read documents for their conceptual content, and therefore go beyond the keyword/synonym matching process currently employed in some natural



IMPLEMENTATIONS

THE CURRENT AI LEGAL LANDSCAPE

IBM Watson Implementation

- LexisNexis
- Thomson Reuters

Law Firms Reporting ROSS Implementation

- BakerHostetler LLP
- Bryan Cave LLP
- Dentons
- Dickinson Wright
- Fennemore Craig
- K&L Gates
- Latham & Watkins

- Salazar Jackson, LLP
- von Briesen & Roper
- Winkel, Green & Van Horn, LLP
- Womble Carlyle Sandridge & Rice

Firms Reporting Kira Systems Implementation

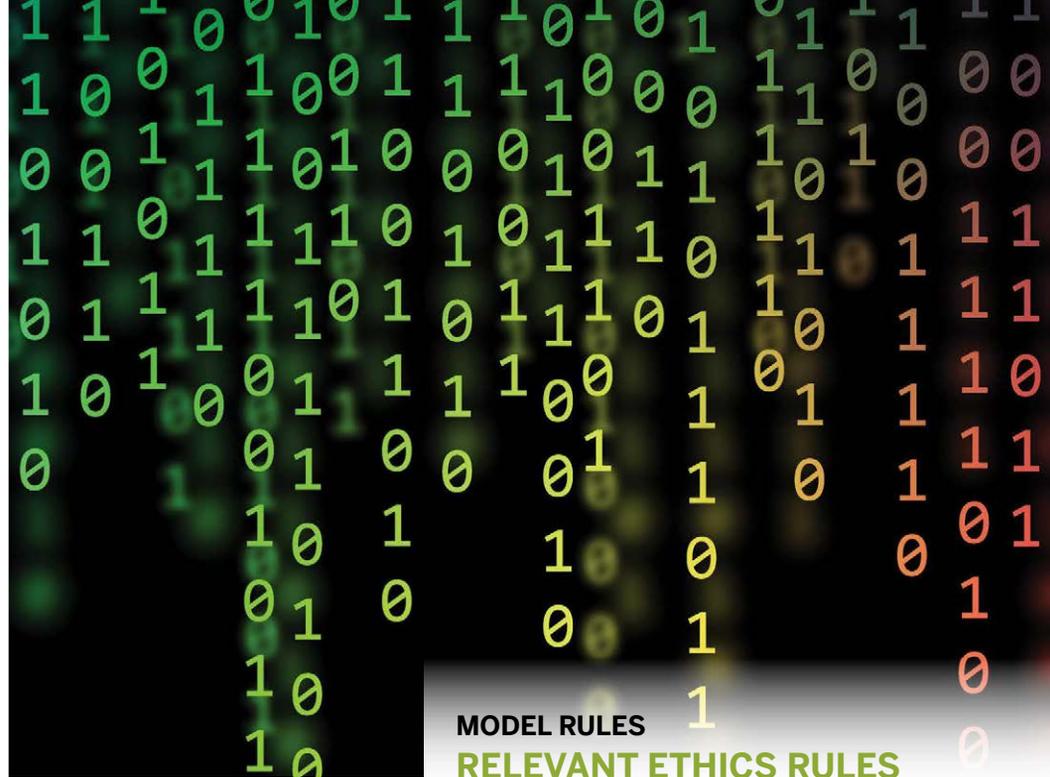
- CMS
- Clifford Chance
- Deloitte
- DLA Piper
- Fenwick & West
- Freshfields Bruckhaus Deringer LLP

language search algorithms. Cognitive computing applications demonstrate learning capability in that repeated searches are analyzed and the search results refined to meet the user's demands more closely. Librarians, aware of what results can optimally be retrieved by a particular search, can gauge the gaps or weaknesses in an AI system by evaluating search results. Law librarians who train/instruct law students/new practitioners can be an integral part of the AI system construction, implementation, and evaluation team. Librarians' familiarity with law students'/associates' search practices and patterns can be harnessed in teaching AI systems as well. In fact, two firms employing an AI system loaded with the same corpus of legal material may retrieve different search results for similar queries over time as each system learns from varying demands and tailors its responses. Practitioners employing poor search strategy will not teach the system as readily, nor be rewarded with more refined results. Watson Cognitive Solutions' Brian Kuhn noted that multiple trainers for AI applications are most effective since, "Cognitive tools ... absorb the biases of those that train them."

The algorithms employed by AI systems are proprietary and will not be open to law librarians or purchasers of AI systems. Thus, AI system users must be even more critical of their legal research strategies and search results. The fact that a process is automated does not mean that students or practitioners should not be informed of how best to use the system, nor should they blindly accept results as satisfactory or complete.

Reducing Ethical Risks Related to AI Implementation

Law librarians can play a role in helping lawyers to both reduce AI-related risks and to become more information and technology literate to fulfill their ethical duties. Rule 1.1 of the ABA *Model Rules of Professional Conduct* requires a lawyer to "provide competent representation to a client." In August 2012, the ABA's House of



MODEL RULES RELEVANT ETHICS RULES

- Model Rule 1.1, Comment [8]
Lawyer shall maintain technology competence.
- Model Rule 1.6
Lawyers must protect confidential client information.
- Model Rule 2.1
Lawyers shall exercise independent judgment.
- Model Rule 5.1, 5.3
Lawyers have a duty to supervise those they work with.
- Model Rule 5.5
Lawyers shall not engage in unauthorized practice of law.

Find the ABA *Model Rules* at bit.ly/MJ17ABA

Delegates voted to amend Comment [8] to extend the competence requirement to technology. Comment [8] states, "To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education, and comply with all continuing legal education requirements to which the lawyer is subject." According to Robert Ambrogi's *LawSites* blog, "by the end of 2016, 26 states had adopted technology competence as part of a lawyer's ethical duties." (See Ambrogi's blog post at bit.ly/MJ17LawSites.)

For a complex and evolving technology such as AI, what constitutes "the requisite knowledge and skill" for a lawyer has yet to be clarified by the courts and the state bar associations. Although court decisions and ethical opinions directly related to AI are scarce, the California State Bar has issued a Formal Opinion No. 2015-193 (the "California Opinion") providing one of the most detailed discussions on technology competence in e-discovery—a related process where AI has been implemented. Although the California Opinion is only advisory, it gives lawyers concrete advice on how to comply with their ethical duty of

competence while e-discovery technologies are constantly developing and becoming more closely integrated in their legal practice. The digest of the opinion suggests, “Attorney competence related to litigation generally requires, among other things, and at a minimum, a basic understanding of, and facility with, issues relating to e-discovery, including the discovery of electronically stored information (ESI). On a case-by-case basis, the duty of competence may require a higher level of technical knowledge and ability, depending on the e-discovery issues involved in a matter, and the nature of the ESI.” The opinion then specifies a few tasks lawyers should be able to perform, “either by themselves or in association with competent co-counsel or expert consultants,” among which is the task to perform data searches. The California Opinion may shed some light on how lawyers can fulfill their ethical duties when AI is involved in their legal practice.

At any time of rapid technology development and transition, law librarians have always been at the forefront to provide insights based on their deep understanding of users’ research habits. In 1996, when users were just being captivated by the simple and intuitive way of natural language searching, one librarian cautioned against emphasizing natural language over Boolean searching in an *AALL Spectrum* article titled “Natural Born Killers: An Argument Against Teaching Natural Language Searching.” In the article, Kelly Kunsch sounded the alarm because a natural language search needs to be translated into computer language “using an algorithm or quasi-mathematical formula” and at the time of the article the “translation” was not done very well. This created two pitfalls for users: (1) “[a] user who does not understand what the computer does in the translation will not choose the best word for the search” and therefore, “rarely utilize computer research to its fullest capacity;” (2) “[a]n attorney who does not understand computer searching language is unable to evaluate and correct the search” and, therefore, creates a “false sense of accuracy.”

As legal databases such as Westlaw and LexisNexis have continued to improve their natural language processing algorithms and further adjust the “translation,” the animosity against natural language searching has diminished. However, when more and more firms are partnering with ROSS or other AI systems to provide faster, better and lower-cost legal services, the concerns expressed in this article from 20 years ago still seem to resonate. Similar to the power behind natural language searching, AI uses algorithms to mimic the human brain’s learning, analytical, and decision-making processes. In light of the exponential amount of data and the complexity of technology involved in an AI system, both the benefits that can be reaped from an optimal AI application and the dangers that may come from a “false sense of accuracy” are amplified. Law librarians’ keen awareness of the pitfalls in similar technology and advocacy in teaching effective and efficient searching strategies are valuable assets in this time of rapid change. In addition to the duty to maintain technology competence under Rule 1.1, an unchecked reliance on AI technology to reach legal conclusions may also violate a lawyer’s duty to supervise under Rule 5.1 and 5.3, the duty to exercise independent judgment under Rule 2.1, and bring claims under Rule 5.5 for the unauthorized practice of law.

Looking Ahead

The time is ripe for law librarians to incorporate background knowledge of both database algorithms and AI corpus contents into the legal research curriculum in both academic and firm instructional settings. Given the risks and benefits associated with AI technology, this training will prepare attorneys to be informed ethical practitioners. Since database algorithms are well-guarded proprietary information, the legal industry needs to call for transparency and standardization related to such technology. In an op-ed for Bloomberg Big Law Business, Wendy Wen Yun Chang, a member of the ABA’s Standing Committee on Ethics and Professional Responsibility

and a partner at Hinshaw Culbertson, expressed her opinion that it is time to regulate AI providers and require some quality standards. (Read Chang’s op-ed at bit.ly/MJ17Chang.) This is in line with the lawyers’ goal of fulfilling their ethical duties related to technology. As she states in her article, “Technology, especially AI technology, can be deceptive because its inner workings are invisible to the naked eye.” Having a general understanding of database algorithms offers a glimpse into the inner workings of AI and makes it possible for attorneys and law librarians to evaluate and correct possible mistakes created by an AI program. Law librarians need to maintain their role in the information cycle as instructors, experts, knowledge curators, and technology consultants as AI is implemented in legal practice and education. ■

READ

“Artificial Intelligence: Not Just Sci-Fi Anymore” from the September/October 2016 issue of *AALL Spectrum* at bit.ly/SO16AI.

AALL 2017 ALERT

Don’t miss the session “Deep Dive: How Artificial Intelligence Will Transform the Delivery of Legal Services,” Monday, July 17 from 9:45 a.m.–12:15 p.m. For more information visit bit.ly/AALL17AI.



SHERRY XIN CHEN
LEGAL INFORMATION LIBRARIAN &
LECTURER IN LAW

Boston College Law Library
Newton, MA
sherry.xin.chen@bc.edu

© 2017 BY SHERRY XIN CHEN



MARY ANN NEARY
ASSOCIATE LAW LIBRARIAN FOR
EDUCATION & REFERENCE SERVICES

LEGAL INFORMATION LIBRARIAN
& LECTURER IN LAW
Boston College Law Library
Newton, MA
maryann.neary@bc.edu

© 2017 BY MARY ANN NEARY