Call for Papers: The Challenge of Rendering Practical Legal Reasoning Through Computational Systems

By:

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Legal reasoning offers artificial intelligence both promise and challenge. For a field long claiming affinities with “logic”, “reason”, analytical rigor, and linguistic finesse, the law has been remarkably slow in capitalizing on advances in knowledge representation, natural language processing, probabilistic reasoning, machine and deep learning, and cognitive sciences. Indeed, the most amply resourced segments of the legal profession appear the least inclined to embrace computational artifacts that exploit those advances.

In this Research Topic, we will explore the intersection of AI and law through insightful re-evaluations of past encounters between the two disciplines as well as presentations and critiques of emerging computational methods for engaging legal reasoning, especially at the forefront of practice. We approach

that intersection with a set of orienting notions:

• AI approaches law through a spectrum of legal realities (ranging from formal law like legislation and judicial opinions, to practice documents like petitions, disclosure filings, and contracts, to recorded facts evidencing strategic behavior), and proceeds to construct data that are abstractions representing those legal realities while purportedly factoring out aspects that are not pertinent or not solvable.

• Legal practice and legal scholarship have advanced well beyond “classical” and “positivist” conceptions of law, have shifted the analytical boundaries between what’s pertinent and what’s not, and demand any technique of abstraction to be increasingly dynamic and situational in order to deliver value sufficient for consideration.

• AI’s momentum has increased with the growth of computing power, while its applications in the legal domain are experiencing a wave of commercialization as “legal tech”, generating potentially profound effects on AI research as well as on legal practice and legal scholarship.

• Innovation and critique should progress within an environment of experimentation, feedback, and open engagement, rather than being held hostage by conservatism in the institutions of law or AI.

• Scholars are uniquely positioned to re-imagine the pedagogic and practice paradigms that have preserved inefficiencies and inequalities in legal services and impeded the adoption of beneficial technologies by lawyers in pursuit of better ways to practice.

Accordingly, we invite contributions by practitioners, scholars, and educators in law, computer science, and other fields to address the following issues:

- Genealogy and Lessons: What are provocative and productive ways to map the history of efforts, from the 1970s onward, to apply AI to legal reasoning (especially in the form of tools for practice), and what can be learned (with regard to science, engineering or entrepreneurship) from such efforts and their mapping, in light of the intra-disciplinary trends and debates in the respective fields of AI and law?

- The “Logics” of Legal Reasoning and of Computer Science: Does legal reasoning adhere to an inherent or heuristic “order”? If so, can system analysis, structured documentation, formal semantic approaches, and algorithmic methods capture it? As comparative law teaches how important “culture” is to the shape of law, how can “culture” be factored into computational artifacts like specifications, concrete implementations, data, and test suites? How might the initial framework of legal tech shape the “logic of the law”?

- Situating AI in Transforming the Environments of Legal Practice: As any transformation of legal practice would, at least in part, be driven by the choices of the practitioners, what institutional dynamics (in law firms, in-house legal departments, NGOs, law schools, computer science departments, government agencies, and international organizations) structure the choices around the adoption of particular AI-based tools? How do the flow of research funding, capital expenditures, and operating expenses direct the development of technology for legal practice? How have venture capitalists, data and technology companies, large law firms, and other enterprises approached investing in legal tech start-ups?

- The Future of Law: What are the best metrics to measure gains in “efficiency”, “productivity”, “accuracy”, “outcome predictability”, “deal certainty”, “return on investment”, “client satisfaction”, or “job satisfaction” that legal tech promises? As a technologically sophisticated legal profession develops towards an “industry”, what are useful ways to understand “network effects”, “addressable markets”, “barriers to entry”, “scalability”, “market dominance”, “market access”, and “access to justice” for legal practitioners, legal institutions or legal tech enterprises?

Keywords: Law, automation, digital business, legal technology, Future of Law, Legal Reasoning, Legal Practice, Computational Applications for Law

For more information on submission, see here.

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Before joining Sullivan & Cromwell, Robert was an Associate Professor at Rutgers Law School. His research and teaching focused on contract theory, public international law, international transactions and trade regulation. He also served as the first faculty advisor to the Rutgers Law Record, a pioneer among purely online law journals.

Robert earned an S.B. and an S.M. in electrical engineering and computer science from MIT and a J.D. from Harvard Law School.

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