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As Law and Technology Merge, Experts See Potential for Innovation—and Harm

Northwestern's law and engineering schools have teamed up to solve real-life problems for Big Law firms—and to c against unintended risks.

By Roy Strom (/author/profile/Roy-Strom/) | April 16, 2019 at 03:37 PM

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Professors Dan Linna, left, and Kristian Hammond of Northwestern University.

Kristian Hammond isn't a lawyer. He just sees reasons to worry about them.

Hammond, a professor at Northwestern University with a Ph.D. in computer science from Yale, specializes in a field of artificial intelligence that happens to intersect with the law: natural language generation.

That field, Hammond predicts, will lead to considerable breakthroughs in legal technology within his lifetime. He says there's "no doubt" a soup-to-nuts legal research product will emerge that crafts arguments for lawyers. More troubling,

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though, are prospects such as parole decisions made by algorithms populated by biased, historical data. Or research that identifies judges' prejudices—which can be done today, he says—so lawyers can lean into them.

“Right now, my interest in the law is because I can see this [development] happening, and if it is not shepherded and guided well, it will be detrimental,” Hammond said. “And not just AI. Technology in general. It can be detrimental if people don't tend to the actual goals that we have as a legal system.”

That's one reason why Northwestern's engineering program is teaming up with its law school.



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Hammond and Dan Linna, a recently retained Northwestern Pritzker School of Law professor, are developing interdisciplinary course work with two goals in mind: to build technology products that make the law more efficient and accessible, and to help shape legal technologies before they emerge in society with unintended consequences.

Linna, a visiting professor at Northwestern from Michigan State University, will next year hold appointments in the Northwestern Pritzker School of Law and in Northwestern's McCormick School of Engineering, where he will teach a class on technology and the law to students earning master's degrees in computer science.

Other **[schools focusing on the nexus of law and computer science](https://www.law.com/americanlawyer/2018/05/02/should-top-law-schools-care-about-innovation/)** include Stanford University, **[which offers](https://law.stanford.edu/education/degrees/joint-degrees-within-stanford-university/law-and-computer-science/)** a joint law and computer science degree; and the University of Miami School of Law, where the **[Law Without Walls](http://lawwithoutwalls.org/teams-1)** program brings together groups of students and teachers to solve real-life problems; **[among a litany of others](https://www.law.com/americanlawyer/almID/1202763199963/)**.

Linna says a differentiating factor at Northwestern is the program's interdisciplinary approach, centered around a class that pairs computer science students with law school students to solve real-life problems.

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The results of this “**Innovation Lab** (<http://www.law.northwestern.edu/academics/curricular-offerings/coursecatalog/details.cfm/?CourseID=1717>)” class **will be on display on Thursday** (<http://www.law.northwestern.edu/law-school-life/events/innovation-lab>), when six groups of computer science and law students present solutions they have developed for problems submitted by law firms, including Reed Smith, Mayer Brown and Actuate Law. The class is also taught under the direction of Northwestern law professor David Schwartz.

“This is the first attempt really at doing things that can provide value and solve problems that are all around us,” Linna said. “This is a unique place that can really make a difference.”

In response to a problem presented by Mayer Brown, a group of students looked into how today’s artificial intelligence tools might be leveraged more broadly across a large firm. Another group working with Mayer Brown set out to build a program that could present legal arguments around liability for sideways implementations of AI tools in the financial sector.

Amol Bargaje, Mayer Brown’s global director for IT and client solutions, said the Northwestern program is an example of how the computer science skill set is increasingly important for law firms.

“This nexus of computer science students, law students and law-tech people seems like the perfect ingredients for some innovation,” Bargaje said.

The group of students working with Reed Smith were asked to develop a product to help various legal research platforms—Lexis Nexis and WestLaw, for instance—speak to one another. The team has developed an application for the Chrome web browser that Nicholas Long, senior director of legal operations at Reed Smith, seems to think will help decrease duplicative search results.

Long said Reed Smith has already made hiring decisions related to summer associates based on their understanding of technology. Last summer, the firm developed a separate summer associate program that let three law students split their time between traditional law practice and knowledge management functions. The “KM Summer Associate” program was expanded to four this year.

“We are frankly looking for associates who have this cross-disciplinary experience and can speak to technology the way our clients can,” Long said.

For Actuate Law, the program is also useful for serving as an introduction to coding talent.

Actuate was **founded last year** (<https://www.law.com/americanlawyer/2018/03/20/first-a-big-law-innovation-then-a-split/>) by a group of former Akerman partners and has dedicated itself to using technologies such as expert systems to make the practice of law more efficient.

In doing so, the firm has hired on a freelance basis a computer science student whom it met through the Northwestern program, said Jeffrey Sharer, the firm’s chief innovation counsel. The firm has also worked with a computer science student it met

through a program at Southern Methodist University Dedman School of Law program.

Sharer said the cross-disciplinary nature of the Northwestern program will prove vital for how technology and the law will continue to grow more entwined.

“It’s not requiring the law students to learn full-scale computer coding skills, and it’s not requiring the computer science students to get J.D.s,” Sharer said. “But it is helping to develop in both of those groups an understanding of how their domains fit with the other. And that will be a huge asset for whatever law firm or legal department hires them.”

For Hammond and Linna, the launch of the legal products on Thursday is only one aspect of the computer science and law partnership they are building. The group will also hold conferences to focus on the impact that technology is having on regulations, or how technology can be better regulated to advance the rule of law in a fair way.

“The law is only just beginning to see the real impact of computation,” Hammond said. To ensure that impact advances rather than subverts the rule of law, Hammond said, “You need a partnership. And that is expressly what we are doing.”

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Roy Strom

Based in Chicago, Roy Strom has been reporting on the legal world since 2011. He covers law firms with a focus on how the Big Law business model is changing. He writes a weekly column for Law.com called "The Law Firm Disrupted," covering changes in the legal services market. He can be reached at rstrom@alm.com. On Twitter: @RoyWStrom



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