

The Northwestern Law and Technology Initiative

Executive Summary

Over the past two decades, we have witnessed dramatic growth in the reach of computational technologies. Recently, there has been an explosion of systems based on data analytics, machine learning, and artificial intelligence, which have had an unprecedented impact on commerce, communication, business, medicine, and human decision-making.

Law is facing the effects of these systems driven by the rise of an entirely new breed of intelligent technologies that could be powerful tools for scaling human effort but have the potential for strikingly negative disruption. We are seeing the emergence of systems based on analytics entering areas that have been, to date, mostly unaffected by technology. Systems that can predict, advise, argue, and write are now primed to enter the world of legal reasoning and decision-making.

Because these technologies are based on algorithms that run inside the cold silicon of the machine, it is easy to think that they will be objective. Unfortunately, while systems built on the foundation of historical data and predictive analytics are powerful, they are also susceptible to bias and can provide advice that is based on incomplete or imbalanced data. Legal forethought will be necessary to guide the use of these powerful technologies.

The Law as a field now has an opportunity to lead in the design and development of technologies that can scale genuine legal decision-making and judgment. We can work towards clarity of thought that is driven by taking the best of the law and moving it into systems that augment and aid rather than simply replace.

If we do not guide this process, those who have goals that are less aligned with the Law will drive it. Systems and products will be driven by people and organizations less focused on the future of our legal system and more on the desire to launch a product. Fortunately, we are at a point in time when we can make sure that the next round of technologies is designed with legal decision-making processes in mind. We have an opportunity to be ahead of the wave and shape its direction.

There is the need for two different responses.

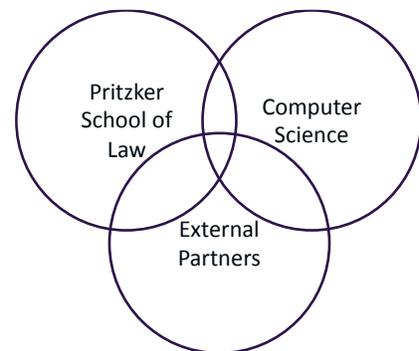
- **Technology for Law:** First, as governments, justice systems, and legal-services providers adopt technologies of automation, prediction, intelligent search, and semantic analysis, there is a need to proactively guide and shape these technologies, even before they emerge.

- **Law of Technology:** Second, there is a need for legal and regulatory guidance, as many technologies impact privacy, security, and individual liberties, as well as views of liability and responsibility in the face of machine decision-making.

A thoughtful response to these needs requires a partnership between researchers in Law and Computation so that the regulation and development of these systems can be informed by an understanding of the goals and values of the law and legal systems as well as the capabilities and limits of the technologies themselves.

The Northwestern Law and Technology Initiative was created to support this partnership.

Our vision is a partnership that includes not only Pritzker School of Law and McCormick's Department of Computer Science, but also external partners such as law firms, corporate legal departments, legal aid organizations, courts, other legal-services providers, legal technology companies, and information providers. Reaching outside of Northwestern allows the Initiative to be driven not only by theory, a deep understanding of legal institutions, and empirical analysis, but also the specific challenges faced by legal systems and legal practitioners.



The Initiative aims to provide five categories of value to outside partners:

1. Research, evaluation, and advice about emerging technologies and systems and their impact on the law, legal systems, and legal-services delivery.
2. Research and development of systems that address problems facing legal-services organizations.
3. Pritzker and McCormick graduates trained in law, legal services, and supporting and disruptive technologies. (Computer Science, JD, LLM, and Master of Science in Law students.)
4. Training for lawyers, technologists, and other professionals to help them develop greater expertise in emerging technologies.
5. Strategic advice based on the current technology and legal ecosystems and how specific technologies can be used to address particular legal, business, and societal needs.

Our collaboration model provides our partners the opportunity to participate in guiding the direction of projects undertaken by the Initiative. This may include focus of research, project development, technology assessment, workshops, conferences, and internships. It is intended that information and opportunities will flow seamlessly between the Initiative and our partners.