Bridging the Computer Science – Law Divide

Recommendations from the Front Lines

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Many pressing societal questions can be answered only by bringing experts from different disciplines together. Questions around misinformation and disinformation, platform power, surveillance capitalism, information privacy, and algorithmic bias, among many others, reside at the intersection of computer science and law. We need to develop institutions that bring together computer scientists and legal scholars to work together on issues like these, and to train new innovators, thought leaders, counselors, and policymakers with hybrid training in both disciplines. In Universities, the disciplines of Computer Science (CS) and Law are separated by many wide chasms. Differences in standards, language, methods, and culture impede professors and other academic researchers who want to collaborate with colleagues on the other side of this divide. Universities place CS and Law in different schools, on different campuses, on different calendars, etc. Researchers in the two disciplines face differing incentives and reward structures for publishing, teaching, funding, and service.

Despite these many challenges many trailblazers have begun to build bridges between the disciplines. They have devised small fixes, clever hacks, or end-runs tailored to fit the shape of their university's idiosyncratic structure. They have started to redesign their institutional homes, creating new courses, centers, and departments that blur the lines between computer science and law. They have done much of this without institutional support or recognition, often by sacrificing the time they could spend on more conventionally incentivized activities. Even though the actions of these trailblazers were tailored to their specific institutions, we believe that compiling and organizing what they have done into a playbook of strategies that might work elsewhere would be useful.

With the generous support from the New America Foundation Public Interest Technology University Network,[†] we compiled a report that provides practical advice for bridging CS and Law in academia. Available from <u>https://www.law.georgetown.edu/techinstitute/policy/reports/bridging-the-computer-science-law-divide</u>, the report is intended for university administrators, professors in CS and/or Law, graduate students working at the nexus of CS and Law scholarship. It distills advice drawn from dozens of experts

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who have already successfully built bridges in institutions ranging from large public research universities to small liberal arts colleges.

Universities interested in bridging the CS-Law divide must think creatively about hiring, promotion, and faculty incentives, and our report provides examples and ideas. It is intended for those who are already convinced of the need to combine these disciplines and seek advice on how to do so rather than try to convince the reader that these disciplines are worth combining.

The report (as the basis for panel presentations and discussion) presents its findings and recommendations in two sections. The first is on *Institutional Building*, focusing on bridging the CS-Law divide on issues of research pathways, hiring, tenure, and building of an interdisciplinary community. The second section is on bridging the CS-Law divide on *Teaching and Learning*, focusing on curriculum development and learning outcomes.[‡]

Institutional Building

Along Institutional Building dimensions, our findings are presented as recommendations to individuals (researchers at various stages of their academic journey) and to institutions (leadership of academic units and central administration), which we summarize below.

For Junior Researchers: (1) Seek out strong mentors; (2) Stick to a principal lane for your research; (3) Ensure your primary-field work is strong enough for tenure by traditional measures; (4) True courtesy appointments with no obligations to secondary departments are the best option for most tenure-track junior faculty members; (5) Look for institutions that demonstrate commitment to bridging the CS-Law divide through real institutional change; (6) Within the institution, look for academic units or other structures created for the express purpose of supporting interdisciplinary research; (7) Know tenure expectations

For Senior Researchers: (1) Major interdisciplinary initiatives require buy-in from the top, but most research or teaching initiatives start bottom up; (2) Commentaries and policy papers, while not traditional scholarship, can be productive as a start to build bridges between departments; (3) Look beyond your own academic unit and university for other institutions with centers

[‡] In providing these recommendations, we acknowledge the insights we gained form discussions we had with colleagues (listed in aour report) who are leading efforts that connect CS and Law at multiple institutions, and from one-on-one interviews we have conducted with a subset of these colleagues.

committed to this space with a critical mass of affiliated faculty interested in interdisciplinary engagement; (4) Define your area of inquiry precisely and start small.

For institutions interested in developing capacities at the CS-Law nexus, we provide recommendations on innovative structures, joint hiring, tenure and promotion, and community building.

On Institutional Structural Innovations: (1) Appoint high-level academic leaders with the mandate of cultivating interdisciplinary pursuits that bridge CS and Law research and training; (2) Create new academic units (departments, colleges, or programs) that are explicitly at the nexus of CS and Law; (3) Create new faculty lines; (4) Consider joint hires that involve tenure eligibility in a home department and negotiated teaching or service obligations in a secondary department; (5) Pursue cluster hiring to build community, teaching, and research as well as to amplify the reputational impact of new hires; (6) Consider Tech Law clinics which are poised to produce some of the most innovative work in Law and CS; (7) Support CS post-docs and graduate students adjacent to a law school as they are great catalysts for bridging disciplines and who stand to benefit by preparing them for interdisciplinary work.

On Institutional Joint Hiring: (1) Leadership must communicate to their faculty the value and process of joint hires; (2) Establish expectations across units before the hiring search; (3) Ensure both academic units involved in a joint search have input on the hiring committee; (4) Negotiations and the offer letter should directly address the workload split; (5) Both academic units should commit to providing support for the hire and predetermine who will pay for it; (6) Clearly lay out tenure expectations to new hires; (7) Even if courtesy appointments do not include formal obligations to the secondary department, wants and expectations should be discussed; (8) Both fields should broaden their conception of what 'counts' as research, and that shift needs to affect the standards for appointments, which is easier for academic units created to bridge the CS-Law divide.

<u>On Tenure and Promotion</u>: (1) Seek buy-in from cognate academic units for modifications to conventional tenure expectations for interdisciplinary hires; (2) Do not require or expect grant development but still recognize its value.

<u>On Creating an Interdisciplinary Community</u>: (1) Ensure that a critical mass of faculty members in both departments are interested in tech policy; (2) Develop new publication options accepted in both fields; (3) Create a pool of experts on both sides of the Law-CS divide who can serve as scholarship reviewers and provide input to lateral appointment and tenure; (4) Urge funding agencies to consider more joint projects.

Teaching and Learning

Along teaching and learning, our findings are presented as recommendations related to curriculum and program development and to learning outcomes, which we summarize below. On Curriculum Development: (1) The entity housing a course dictates important constraints on the nature and substance of the course; (2) Consider interdisciplinary graduate degree programs in CS and Law housed within a law school; (3) Classes can benefit from diverse enrollment, with students from both law and CS; (4) Consider the benefits and drawbacks of importing skills or concepts relatively intact from an outside discipline instead of melding disciplines together.

On Learning Outcomes: (1) Consider courses that provide basic interdisciplinary knowledge transfer, teaching law students a bit of CS and CS students a bit of law; (2) Consider enrolling every law student in a "demystifying technology" course; (3) Emphasize the development of skills as well as substantive knowledge; (4) Consider courses that teach lessons from the other discipline, such as legal ethics into a CS curriculum; (5) Consider "extradisciplinary" courses that break out of traditional legal or CS thinking to find new solutions and approaches.

Postlude

Given the ubiquity and impact of computing in our society, it is hard to overstate the importance of educating technology-savvy lawyers and technologists who are sensitive to the legal, policy, and ethical implications of their innovations. Research partnerships between experts from the two disciplines are essential to provide the grounding for reliable and informed decision-making by judges, regulators, policymakers, and private actors in this space.

In compiling best practices from dozens of experts and organizing them in a logical structure, we may have given the misimpression that we have figured everything out. On the contrary, nobody we talked to for this report suggested that they had found all of the answers. Even those who had made great strides emphasized that there was much more work to do. Consider this more of a progress report than a finalized road map.

For readers at institutions that have just started to explore how to bring together CS and law, understand that the first steps are among the most difficult. In our experience, success breeds success, by building momentum and political support. We hope that our report can help you develop initial ideas and can be something you can share with colleagues and administrators looking for proof that similar ideas have worked elsewhere. The most important thing is to adapt our global advice for your local conditions. Every University has its own organization, history, values, power dynamics, and politics. What has worked elsewhere may not work at all in your particular setting. Nobody outside your institution knows as much as you do about what is possible, so pick-andchoose the advice and models that you think will work for you. Finally, understand that you are part of a large and growing community of computer-science-lawyers and law-focusedcomputer-scientists who are here to provide advice and support. Reach out to us or to people you know or recognize from our list of contributors. And when you experience success, pay it forward by sharing what you have done and how you accomplished it to those who will follow.