

Legal Technology & Informatics: Syllabus

Think Outside The Bar

Stanford, LAW 668 - Fall Quarter 2012 - Wed 16:15 - 18:15, Room 285

Ron Dolin, JD, PhD, Instructor
Tony Lai, MA (Oxon), LL.M, Research Fellow
Pieter Gunst, LL.M., Research Fellow

Synopsis:

Legal technology is rapidly transforming both the practice and nature of law. This class seeks to explore both the current trends and the future possibilities of this transformation, as we begin to train the future generation of technology savvy lawyers, and technologists who understand the intricacies and potential of what the law could be. Legal informatics could be defined as a computational perspective of law: where does legal information reside, and how is it manipulated and transmitted? Note that there are no prerequisites for this class beyond an interest in the subject.

There are numerous examples of technologically driven legal transformation. Case law search has moved from hard copy to closed digital systems such as Westlaw and LexisNexis, and into free cloud-based systems such as Google Scholar and Wikipedia. More and more statutes are available online. Changes can be seen in e-discovery, privacy, the delivery of (online) legal services, and the budding legal technology startup community. As a result, questions arise as to the proper statutory and ethical boundaries between humans and machines in implementing legal functions.

Beyond the current and near-term technologies, however, are core academic and philosophical questions that will have increasing import as machines gain in sophistication and capability. For example, although the law differentiates between the responsibility assignable to minors compared to adults, we are far from identifying the point at which an agent or robot is morally responsible for its own actions, as opposed to the responsibility being assigned to its creator.

Course Sessions

[Class 1 - Transformations \(September 26\)](#)

[Class 2 - Delivery \(October 3\)](#)

[Class 3 - Corporate \(October 10\)](#)

[Class 4 - Search \(October 17\)](#)

[Class 5 - Data Privacy & IP \(October 24\)](#)

[Class 6 - Automation \(October 31\)](#)

[Class 7 - Analysis \(November 7\)](#)

[Class 8 - Access \(November 14\)](#)

[Class 9 - The Future \(November 28\)](#)

[Administration:](#)

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[Speaker Bios](#)

Course Reader

Speakers

1. Don Jaycox, MS, CIO, Americas, DLA Piper
2. David Hornik, JD, M.Phil, August Capital
Jason Lemkin, JD, founder of EchoSign (now part of Adobe)
3. Miriam Rivera, JD, MBA, Ulu Ventures (ex Deputy-GC at Google)
4. Anurag Acharya, Ph.D., Co-creator of Google Scholar, ++
5. Seth Schoen, Privacy Engineer, EFF
6. Mark Musen, M.D., Ph.D., Stanford University
7. Daniel Katz, Ph.D., Michigan State University
8. Marc Lauritsen, JD, Capstone Practice Systems; Suffolk University Law School
9. Peter Thiel, JD, co-founder of PayPal, Palantir

Class 1 - Transformations (September 26)

Topics:

Legal Landscape: Transformations, Scope, Profession, “Big Law”

Speaker: Don Jaycox

Class Outline

1. Introductions and class structure.
2. What do we mean by “technology” and “informatics”, and what is the difference between general and legal technology and informatics?
3. Is the nature of law changing; what is the role of technology in law?
4. Should legal technology be taught in law school? What other aspects of law are commonly taught in addition to substantive and procedural aspects of law (e.g. practice management, economics)?
5. Scope - defining terms: legal technology vs. legal informatics. Is “voting” part of the law curriculum, legal technology?
6. Transformation in the profession - How is the legal profession changing: old and new career paths? How is technology affecting this?
7. What does legal technology look like from the perspective of big law?
8. From an informatics perspective, what information tends to flow into and out of a law firm? As a result, what type of technology would we imagine to be important to a law firm? How could this information flow be tweaked, transmitted safely over the cloud, made scaleable or (semi-)automated, etc.? We’ll see an example of seeking appropriate technology to fulfill various legal functions when we examine privacy.

Class preparation:

Key Concepts:

informatics, legal informatics, technology, billable hour, project management, unbundled services, outsourcing vs. offshoring, law firm business model, law practice management, e-discovery, manual review, law firm pyramid model, cash cow

Reading:

Required

- Richard Susskind - The End of Lawyers? (Introduction to the 2010 ed. paperback)
http://www.amazon.com/The-End-Lawyers-Rethinking-services/dp/0199593612/ref=reader_auth_dp
- Legal Transformation 2020 (Summary):
<https://www.legaltransformation.com/studysummary.asp>

- State of the Legal Industry Survey (2009, LexisNexis):
http://www.lexisnexis.com/document/State_of_the_Legal_Industry_Survey_Findings.pdf
- Informatics
Wikipedia: <http://en.wikipedia.org/wiki/Informatics>
- Legal Informatics
Wikipedia: http://en.wikipedia.org/wiki/Legal_informatics
- Technology
Definition:
 1. the science or study of the practical or industrial arts, applied sciences, etc.
 2. applied science.
 3. a method, process, etc. for handling a specific technical problem.
 4. the system by which a society provides its members with those things needed or desired.
 Wikipedia: <http://en.wikipedia.org/wiki/Technology>

Optional

- <http://www.legaltransformation.com>
- <http://legalinformatics.wordpress.com>
- <http://abajournal.com/topic/legal+technology>
- <http://amazon.com/End-Lawyers-Rethinking-nature-services/dp/0199593612>
- (See [course reader](#))

Tasks:

Review course syllabus and course reader. Prepare to discuss and choose 4 topics for class papers and 1 topic for final paper.

Example Problems:

Class 2 - Delivery (October 3)

Topics:

Internet and the Cloud: Technological Delivery of Legal Services; Legal Tech Startups

Speakers: David Hornik, Jason Lemkin

Class Outline:

1. What is the current and potential impact of the internet on the practice of law?
2. What are the unique characteristics of legal services startups that encourage or impede their ability to succeed (regulatory and/or ethics issues, law firm/department business structure, market size, information flow, etc.)?
3. What does *access* mean (cost, quality, speed, automation)? In particular, what does access to law/justice mean?
4. What changes if/when most/all people have access to legal information/services?
5. What happens when legislation (pending or current), regulation, and/or judicial interpretation (legal decisions, etc.) can be easily monitored by 1) the public, 2) special interests, and 3) large and small businesses alike?
6. Where are the inefficiencies and the latent markets within legal services? Which of these are ripe for disruption? Why? By whom?
7. What did it take to create a platform for electronic signatures within the current legal and technical limitations? What would an API for electronic signatures require? That is, what kind of information needs to accompany a signature to make it legally binding? Are there special cases (e.g. wills, notarization, credit card purchases)?
8. From an informatics perspective, what types of information exchange are facilitated by the cloud? How does this capability facilitate potential legal function? This is the flip side of our analysis of a law firm as viewed as a set of legal functions. We'll see an example of applying existing technology to various legal functions when we examine search.

Class preparation:

Key Concepts:

legal services, commoditization, automation, "The Cloud", scalability, legal technology startups, UPL, attorney fee splitting, legal information vs. legal advice, latent markets, attorney-client privilege.

Reading:

Required:

- Chris Johnson - Leveraging Technology to Deliver Legal Services:
<http://jolt.law.harvard.edu/articles/pdf/v23/23HarvJLTech259.pdf>

Optional:

- (See [course reader](#))
- David Hornik's blog: <http://www.ventureblog.com>
- Jason Lemkin's blog: <http://saastr.wordpress.com/>

Tasks:

Sign on to do editing of Legal Informatics Wikipedia page.
Prepare and post a question for the speaker on the class forum.

Example Problems:

Digital courtrooms & nationally distributed jury pools:

<http://slideshare.net/doryreiling/innovative-court-technology-reiling-june-2012-13876547>

Class 3 - Corporate (October 10)

Topics: Corporate Legal Technology

Speaker: Miriam Rivera

Class Outline:

1. What are the impediments to progress in terms of uptake of legal technology by in-house legal departments?
2. What kinds of data are being made available, or would be required, by corporations to assist with legal risk analysis?
3. What are the major legal costs for corporate legal departments?
4. Where is the low hanging fruit? (Cisco: NDA; Google: e-signature; etc.)
5. What types of compliance and filings are common, and how amenable are such things to automation?
6. How are corporate clients pushing law firms to move forward with legal technology?
7. What is the interplay between e-discovery and institutional memory (e.g. data retention policy)?
8. What kind of tech support do in-house legal departments get in terms of engineering support for new tools (beyond general IT support)?
9. From a legal informatics perspective, what types of legal data and processing are likely to occur within a corporate framework? This includes both internal (company) and external (user, vendor, etc.) data.

Class Preparation:

Key Concepts:

NDA, e-signature, legal risk analysis, prediction (see Session 7), ROI, compliance, SEC filings, e-discovery, data retention policy, institutional memory

Reading:

Required:

- The Cisco Way: This Internet Giant's Outside Counsel Must Stay Tech-Savvy to Survive
http://www.abajournal.com/magazine/article/the_cisco_way/
- Legal OnRamp
http://en.wikipedia.org/wiki/Legal_OnRamp
- Minnesota State Archives Legal Risk Analysis
<http://www.mnhs.org/preserve/records/tis/Legalriskoptions.html>
www.mnhs.org/preserve/records/tis/docs_pdfs/Legalrisk.pdf

Optional:

- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Example Problems:

Class 4 - Search (October 17)

Topics: Legal Search: “Information Intermediation” -- A Technology Solution for Multiple Problems

Speaker: Anurag Acharya

Class Outline:

1. How might one specify an information need, say for the following: a library book, an aerial photograph, a consumer product, a (legal) service provider, a potential date, music or video, a patent, a court opinion, a statute and/or regulation, an EU Directive?
2. What are common ways of cutting information (e.g. date, topic, geographical region, cost, author/custodian, etc.)? How might these be combined into a single ranked list of results?
3. What are common text-processing search techniques?
4. What are the pros and cons of (hierarchical) classification?
5. How might one evaluate (legal) search results?

Class Preparation:

Key Concepts:

Information/text retrieval, search index, term vector space, latent semantic analysis, tf/idf, stop words, synonym expansion, metadata, Dublin Core, search query, ambiguity, fielded search, filtering vs. ranking, satisficing, hierarchical classification scheme, semi-automated classification, clustering, heterogeneous data, multifaceted search, precision, recall, predictive coding, sampling

Reading:

Required:

- **General:** http://en.wikipedia.org/wiki/Vector_space_model
- **Multifaceted Search:** <http://www.okcupid.com/help/match-percentages>

Optional:

- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Prepare two useful legal searches that you can't do online, with at least one oriented toward Google Scholar (see http://scholar.google.com/advanced_scholar_search).

Example Problems:

Class 5 - Data Privacy & IP (October 24)

Topics: Data Privacy - Problems Requiring Multiple Technological Solutions;
Technology's Impact on IP Law

Speaker: Seth Schoen

Class Outline:

Privacy:

1. What does (data) privacy mean?
2. What is the difference between anonymity and pseudonymity?
3. What technical mechanisms are commonly used to protect data privacy (encryption, (non-)cookies, PCI DSS, etc.)? What about legal, social, etc. mechanisms?
4. What is your data worth? How might you estimate it? How much do you get paid for it (directly or indirectly, say via free services)?
5. What's up with P3P?
6. Should TOS and privacy policies impact 4th amendment search rights?
7. What are onward transfers? What types of technologies might block unwanted data sharing?

Technology and IP:

1. Does technology have a particular impact on IP law as compared to other aspects of law? If so, how and why?

Class Preparation:

Key Concepts:

FTC's Safe Harbor (and related), Article 29 Working Party, encryption, web/flash cookies, data retention, anonymization, digital self-determination, privacy torts, "reasonable expectation of privacy", SSL, 2-factor authentication, PCI DSS, P3P, onward transfers, "security through obscurity"

Reading:

Required:

- Privacy Lost, Chap. 1: The Seven Sins Against Privacy
- Search Query Privacy: The Problem of Anonymization
<http://hstlj.org/wp-content/uploads/2011/08/v2i2dolin.pdf>

Optional:

- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Example Problems:

- Onward transfers of private information
- Predicting, detecting, and/or preventing criminality

Class 6 - Automation (October 31)

Topics: Automation, Standards, and Learning from Biomedical Informatics

Speakers: Mark Musen

Class Outline:

1. Which legal (medical) functions are most amenable to automation? Why?
2. What are the trade-offs of automating (legal, medical) human activities?
3. How fair is automated ADR?
4. What are the advantages and disadvantages of semi-automation?
5. What types of information are most amenable to standardization and componentization (data, API's)? What type of API might you want around, say, e-signatures?
6. What are the drivers of new technology and informatics in law? in medicine?
7. What are the goals of informatics in law? in medicine?
8. What are the relevant differences and similarities between law and medicine (e.g. physical, natural vs. man-made, market-size, etc.)?

Class Preparation:

Key Concepts:

automation, semi-automation, standard, ADR, API, componentization, certification, controlled vocabulary, ambiguity, biomedical technology/informatics

Reading:

Required:

- The Economist - Morals and the Machine
<http://www.economist.com/node/21556234>
- Automation: Will Robots Steal Your [legal] Job?
http://www.slate.com/articles/technology/robot_invasion/2011/09/will_robots_steal_your_job_5.html
- Automation: Will Robots Steal Your [medical] Job?
http://www.slate.com/articles/technology/robot_invasion/2011/09/will_robots_steal_your_job_3.html
- Semi-automated Contract Formation and Standardization:
<http://tdlp.classcaster.net/2012/03/16/tdlp-class-6-kingsley-martin-contract-standardization/>

Optional:

- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Example Problems:

Class 7 - Analysis (November 7)

Topics: Computational Analysis, Visualization, Prediction of Legal Issues and Outcomes

Speaker: Dan Katz

Class Outline:

1. Which types of (legal) issues are amenable to a computational perspective? Not just the obvious (e.g. formulas, economics, quantifiable data, damages awards), but also...
2. What questions might you want to ask but can't answer due to poorly structured data?
3. How might visualization assist in understanding (legal) data?
 - a. Consider spacing (linear, 2D and 3D): why do we indent nested code segments, contract clauses, etc.?
 - b. Consider what visualization can do with portraying large amounts of information.
 - c. Consider what relations between pieces of information can be represented through color, arrows, icons etc.
4. What assumptions go into (legal) prediction? What repeatable behaviours are visible? What has to happen in law, when predicting legal risk?
 - a. When is it not enough to say you're fitting the predicted pattern? how might edge cases push the boundaries of prediction and raise red flags? [case of the 8'11" man]
 - b. How important is uncertainty around prior events, especially with sparse data sets?
5. Are there aspects of legal problems that differentiate them from non-legal problems from an analytical or visualization perspective (e.g. Consider human genome as compared to statutes)?

Class Preparation:

Key Concepts:

visualization, chart junk, computational analysis, prediction

Reading:

Required:

- <http://plato.stanford.edu/entries/popper/#SciKnoHisPre>
- [Quantitative Legal Prediction](#), by Dan Katz (draft copy via SSRN)
- [Predictive Policing](#)

Optional:

- Edward Tufte (e.g. Visual Display...): <http://www.edwardtufte.com/tufte/>
- [Lex Machina Arms Corporate Leaders and Patent Attorneys with Predictive Analytics](#)
- [Big Data Meets BigLaw: Will Algorithms Be Able to Predict Trial Outcomes?](#)
- [Android at Law: Will Robots Steal Your Job?](#)
- [Armies of Expensive Lawyers. Replaced by Cheaper Software](#)
- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Example Problems:

Computational Analysis; Visualization

Class 8 - Access (November 14)

Topics: Access to Justice; The role of government in the encouragement and utilization of legal technology; legal education and certification

Speaker: Marc Lauritsen

Class Outline:

1. What, if any, is the difference between access to law and access to justice?
2. Does/could technology increase access to law? If so, how? If not, why not?
3. What do various government agencies say is their responsibility to provide for access to law?
4. What is CA bar's notion of "legal technology"? Is it limited to "practice management"?
5. How can intelligent tools help non-lawyers get legal work done, or enable lawyers to help non-lawyers solve legal problems more easily and/or cheaply?
6. What aspects of personal (e.g. non-corporate) legal work can machines competently handle?
7. Do the ABA model rules of Professional Responsibility address legal technology at all? What about the CA bar?
8. What types of legal technology should be taught at law school or be made available via MCLE? Who regulates law school accreditation and MCLE credits? What constraints exist that promote or limit such training?
9. Can legal technology assist with legal education? Are there unique educational requirements for law (e.g. clinic work)?

Class Preparation:

Key Concepts:

[Legal Services Corporation \(LSC\)](#), Calbar's [Center on Access to Justice](#), Calbar's [LPMT](#), MCLE, ABA Model Rules of PR, elawyering, AI & Law, "working smarter", law school accreditation, Apps 4 Justice

Reading:

Required:

- Cyberclinics: Law Schools, Technology and Justice, by Ron Staudt
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDUQFjAA&url=http%3A%2F%2Fwww.law.harvard.edu%2Fprograms%2Fplp%2Fpdf%2F009-03358_03358-ch0008.pdf&ei=WIShUP_LGsaQiQKS7YDIAQ&usg=AFQjCNFYKzW1yviJQNmyJ39d0sg7nRhsnQ&cad=rja
- Lawyering in an Age of Intelligent Machines, by Marc Lauritsen
<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CDMQFj>

[AB&url=http%3A%2F%2Fwww.law.harvard.edu%2Fprograms%2Fplp%2Fpdf%2F003-03358_03358-ch0002.pdf&ei=9YOhUI3VEYrNiwKMloCwCg&usg=AFQjCNEnd65x9a6ZtdStg73reirP3og4tw&cad=rja](http://www.law.harvard.edu/programs/plp/pdf/003-03358_03358-ch0002.pdf&ei=9YOhUI3VEYrNiwKMloCwCg&usg=AFQjCNEnd65x9a6ZtdStg73reirP3og4tw&cad=rja)

- Belgium Constitution, Art. 23:
http://www.dekamer.be/kvvcr/pdf_sections/publications/constitution/grondwetEN.pdf
- ABA Adopts Ethics Policy on Lawyers' Use of Technology
<http://www.law.com/jsp/lawtechnologynews/PubArticleLTN.jsp?id=1202566577730>

Optional:

- Edwina Rissland “Artificial Intelligence and Law: Stepping Stones to a Model of Legal Reasoning.” Yale Law Journal. Vol. 99, No. 8, pp. 1957-1982, June 1990
<http://heinonline.org/HOL/LandingPage?collection=journals&handle=hein.journals/ylr99&div=73&id=&page=>
- Taiwo Oriola, The Use of Legal Software by Non-lawyers and the Perils of Unauthorised Practice of Law Charges in the United States
<http://eprints.ulster.ac.uk/16416/>
- Belgium: http://ec.europa.eu/civiljustice/legal_aid/legal_aid_bel_en.htm
- UK Legal Aid Eligibility: http://www.legalservices.gov.uk/civil/civil_legal_aid_eligibility.asp
- U.S. State Statute availability
 - <http://sunlightfoundation.com/blog/2012/10/02/survey-how-many-states-publish-rules-and-regulations-online/>
 - <http://www.aallnet.org/Documents/Government-Relations/2011-2012-Preliminary-Analysis-of-AALLs-State-Legal-Inventories.pdf>
- U.S. Federal Legislation and Related: <http://beta.congress.gov/>
- (See [course reader](#))

Tasks:

Prepare and post a question for the speaker on the class forum.

Explore [Illinois Legal Aid Online](#). Locate the module that produces a petition to waive court fees in Cook County Circuit Court. Complete the interview, as if you were a pro se litigant, and generate the form needed.

Example Problems:

Class 9 - The Future (November 28)

Topics: The Future of Legal Technology: encoding free will and empathy?

Speaker: Peter Thiel

Class Outline:

1. What are the various potential interactions between people and machines in the future, and what would the inevitable trade-offs be?
2. What should the law be ideally? What is fair?
3. AI and the Law
 - a. What might be the advantages and disadvantages of a fully-automated legal system? Who gets to change it? What are the implications regarding various legal and moral philosophies (e.g. source and use of natural law)?
 - b. Free Will
 - i. What changes as we age that allows adults to be held to a higher moral standard than infants, incompetents, or the insane?
 - ii. Can machines exhibit *mens rea*?
 - iii. Can one encode free will? What are the circumstances under which a soldier is and is not guilty of murder for killing an enemy soldier?
 - iv. Can software ever make a claim of “self-defense”?
 - v. Identify the legal (pragmatic), moral, and computational points at which an agent or robot should be responsible for its own actions, as opposed to the responsibility being assigned to its creator.
 - If these points are different, explain why.
 - vi. What does this imply about the various justifications for punishment, punitive damages, and strict liability?
 - c. Empathy and the Law
 - i. What is the proper and/or pragmatic role of empathy in the law? If empathy is an important component of the law (e.g., Ronald Dworkin says law is an attitude), can it be encoded in machines; if so, what would the algorithm look like? Would a truly autonomous, empathetic machine or robotic judge or robocop care more about humans, or other machines, or both in balance? Would any sufficiently intelligent entity become species-centric?
 - ii. Can there be fairness without empathy and compassion? Is empathy perhaps the responsibility of the programmer, and fairness the responsibility of the program?
 - iii. How do we balance consistency with the plethora of possible exceptions and exigent circumstances? Would an algorithm be an improvement or

detriment, and under which circumstances?

Class Preparation:

Key Concepts:

legal evolution, HCI, free will, determinism, empathy, selective enforcement, prosecutorial discretion, justifications for punishment, criminal sentencing guidelines, exigent circumstances, law vs. equity, retribution, responsibility, culpability, negligence, intent, recklessness, willful blindness, rule of recognition (paradox?), institutionalized norms, “code is law”, designing law

Reading:

Required:

- A neurological foundation for freedom (extended abstract only):
<http://stlr.stanford.edu/2012/02/a-neurological-foundation-for-freedom/>
- The implications of free will on tax law: “Luck, Wealth, and Implications for Policy”, Richard Posner
<http://www.becker-posner-blog.com/2012/10/luck-wealth-and-implications-for-policy-posner.html>
- Legal Evolution:
<http://www.jstor.org/discover/10.2307/2775207?uid=2129&uid=2&uid=70&uid=4&sid=21101203681797>

Optional:

(See [course reader](#))

Highly recommended: Free Will Hunting

<http://www.amazon.com/Free-Will-Hunting-HD/dp/B008V6YI2G>

Tasks:

Prepare and post a question for the speaker on the class forum.

Example Problems:

- Regulating moving violations (see course reader)
- AI and the Law (see course reader -- three questions)

Administration:

Because this is the first time this course is being offered, the lesson plan is dynamic and expected to change over the quarter. A class plan is set out below, but students should be prepared to contribute towards its development as well as the development of this critically important and dynamic field. In addition to weekly readings, we will also bring in speakers to discuss their respective areas of expertise.

Law students may enroll in this seminar for either W (2 units) or R (2 or 3 units). You may write a series of short commentaries on the weekly readings, in addition to a paper based on either a group or individual project. This will satisfy the Law School's Writing requirement. Alternatively, you may write a single research paper on an approved legal informatics topic of your choice. This will satisfy the Law School's Research requirement.

There is no formal prerequisite to take this seminar. This seminar will be cross-listed between the Law School and the Computer Science Department. Please come with a strong interest in how technology transforms the law, and a willingness to explain concepts from your respective fields to students with different backgrounds.

Enrollment: Open

Grading system: Honors/Pass

Elements used in grading: 4 commentaries and a final 10-page paper (for the writing requirement), or one research paper (minimum 18 pages for 2 units, 26 pages for 3 units, for the research requirement). See Work Assignments section below. Attendance and class participation is mandatory.

Type of exam: None

Specific graduation requirements met: Writing, possibly Research.

Special instructions, rules or deadlines: See "Special Instruction" in course description above.

Work Assignments

All Students

- Before class 2, students choose one from the 8 remaining class topics. (There should be at least 2 students per topic group, preferably law + non-law)

- Before each class, all students must do the required reading and tasks and have attempted to understand the “key concepts”. Per-topic students should do reasonable extra reading from the suggested reading list and relevant course reader materials.
- Each topic group meets before the relevant class and prepares draft *individual 2-page* papers to be discussed / presented in class.
- The topic group may meet after the relevant class. Each student in the topic group should submit a final *individual* paper after the class.

1. Writing requirement

For your chosen topic:

- 2 pager - to be prepared and distributed in advance of class - what you want people to walk away with. What you hope to accomplish in the class.
- 10 pager - to build on the 2 pager, to be completed before the final paper deadline at the end of the course.

For the rest of class:

- Pick 4 other topics and produce a 2 pager after the class, to be turned in within 2 weeks of the relevant class.

2. Research requirement

Students considering taking this track should arrange a time to speak with the course instructor after class 1 to discuss and determine research orientation. An annotated bibliography will be due in advance of the final paper.

For your topic:

- 2 pager - to be prepared and distributed in advance of class - what you want people to walk away with. What you hope to accomplish in the class.
- 18 (2 credits) / 26 (3 credits) pages - research paper, after the class, to be completed before the final paper deadline at the end of the course.

For the rest of class:

- No need to pick any other topics to write upon.

Speaker Bios

Don Jaycox, MS

CIO, Americas, DLA Piper

As CIO of the Americas at DLA Piper, Don is responsible for all technology services for the North and South American operations of DLA Piper, the world's largest law firm, as well as the departments of Legal Research & Libraries, Records Management, and Docketing. His nearly 30 years working in the IT industry has also included positions as CTO at Gray Cary Ware & Freidenrich (1989-2004) and Director of Information Systems at Cubic Corporation (1983-1989), and his adoption of the firm's standout telecommuting program for IT employees led to his being featured in a May 2010 article on legalitprofessionals.com, "Best Practices to Retaining Top IT Talent in the Legal Industry", in May 2010.

Don earned both his M.S. and B.S. in Computer Science from Northwestern University.

David Hornik, JD, M.Phil

August Capital

David is a General Partner with August Capital (www.augustcap.com) and the creator and Executive Producer of The Lobby Conference. He invests broadly in information technology companies, with a focus on consumer facing software and services, enterprise applications and infrastructure software. He is the author of the first Venture Capital blog, VentureBlog.

Prior to joining August Capital, David was an intellectual property and corporate attorney at Venture Law Group, Cravath Swaine & Moore, and Perkins Coie LLP. David teaches business and law at Stanford's Graduate School of Business and writes about the venture capital industry in VentureBlog (www.ventureblog.com). He earned his J.D. from Harvard Law School, his M.Phil. in Criminology from Cambridge University, and an AB in Computer Music from Stanford University.

Jason Lemkin

*Vice President, Web Business Services, Adobe Systems
Co-Founder & CEO, EchoSign, Inc.*

Jason Lemkin is CEO and co-founder of EchoSign. Lemkin previously was an executive in residence at Storm Ventures and served as president, chief business officer and co-founder of NanoGram Devices, now a subsidiary of Greatbatch, Inc. He previously served as vice president, corporate development at NeoPhotonics Corporation and as senior director of corporate development at BabyCenter.com, now a subsidiary of Johnson & Johnson. Lemkin also served as corporate counsel to leading technology companies at Venture Law Group and as a management consultant at Pathway Ventures. He holds a Bachelor of Arts degree with Magna Cum Laude designation from Harvard University; a JD and Order of the Coif from University of California Berkeley, and he completed the Stanford Graduate School of Business' Executive Management Program.

Miriam Rivera, JD, MBA

Ulu Ventures (ex Deputy-GC at Google)

Miriam co-founded Ulu Ventures, where she is the Managing Partner. Prior to joining in 2001, she served as in-house counsel for Ariba and co-founded Outcome Software (an angel and venture-backed software company). She is also the co-founder and co-president of Stanford Angels & Entrepreneurs, an "open source network" of Stanford alumni investors and entrepreneurs. At Google, Miriam was the second attorney, and helped build the legal team from 2 to over 150 worldwide. She was Google's first internally promoted VP in a SG&A function (and the second internally promoted VP in a non-engineering function) as Vice President/ Deputy General Counsel.

Miriam currently serves on the Board of Trustees of Stanford University. She has also taught in the Stanford Technology Ventures Program in the School of Engineering on start-up board issues and is a mentor in entrepreneurship at the Stanford GSB. She is also a Kauffman Fellow in venture capital. As a first generation college student and scholarship recipient, Miriam graduated from Stanford University where she earned the AB, AM, and JD/MBA degrees.

In 2008, Miriam received the Jerry A. Porras Leadership Award from the Stanford Graduate School of Business. In 2006, the Hispanic National Bar Association voted Miriam "Latina Lawyer of the Year", and Hispanic.Net named her "Latina Executive of the Year". She was also selected by Corporate Counsel magazine as one of the top 10 corporate attorneys in the United States in 2005. In Spring 2011, the Google Legal department Miriam helped found was named 2011 Best Legal Department by Corporate Counsel magazine and the Silicon Valley/San Jose Business Journal voted Miriam one of the top 100 Women of Influence in Silicon Valley.

Anurag Acharya, Ph.D.

Founding Engineer, Google Scholar
Distinguished Engineer, Google

Anurag Acharya is the principal engineer behind Google Scholar and the driving force behind Google's primary law materials, which launched in Scholar in 2009. Before joining the Google team, Anurag taught at the University of California, Santa Barbara. Dr. Acharya is scheduled to speak at the 2012 Law Via the Internet Conference of Cornell Law School in October 2012.

Seth Schoen

Privacy Engineer, Electronic Frontier Foundation

Seth Schoen created the position of EFF Staff Technologist, helping other technologists understand the civil liberties implications of their work, EFF staff better understand the underlying technology related to EFF's legal work, and the public understand what the technology products they use really do.

Schoen comes to EFF from Linuxcare, where he worked for two years as a senior consultant. While at Linuxcare, Schoen helped create the Linuxcare Bootable Business Card CD-ROM. Prior to Linuxcare, Schoen worked at AtrNet, the National Energy Research Scientific Computing Center at Lawrence Berkeley National Laboratory, and Toronto Dominion Bank. Schoen attended the University of California at Berkeley with a Chancellor's Scholarship.

Mark A. Musen, M.D., Ph.D

Professor of Medicine (Biomedical Informatics); Division Head (BMIR); Co-Director, Biomedical Informatics Training Program

Dr. Musen conducts research related to intelligent systems, the Semantic Web, reusable ontologies and knowledge representations, and biomedical decision support. His long-standing work on a system known as

Protégé has led to an open-source technology now used by thousands of developers around the world to build intelligent computer systems and new computer applications for e-science and the Semantic Web. He is known for his research on the application of intelligent computer systems to assist health-care workers in guideline-directed therapy and in management of clinical trials. He is principal investigator of the National Center for Biomedical Ontology, one of the seven National Centers for Biomedical Computing supported by the NIH Roadmap.

Daniel Katz, Ph.D., JD, M.P.P. Michigan State University

Assistant Professor of Law, Michigan State University

Prior to joining the MSU College of Law faculty, Professor Daniel Katz was a Fellow in Empirical Legal Studies at the University of Michigan Law School and an NSF-IGERT Fellow at the University of Michigan Center for the Study of Complex Systems. His wide variety of academic interests include positive legal theory, quantitative modeling of litigation and jurisprudence, and the impact of information technology on the market for legal services.

Professor Katz has published articles in scholarly journals such as *Cornell Journal of Law and Public Policy*, *Virginia Tax Review*, *Ohio State Law Journal*, *Journal of Legal Education*, *Journal of Law and Politics*, *Physica A* and the *Proceedings of the International Conference on Artificial Intelligence and Law*. His work also has been featured in print and online outlets including the *New York Times*, *The Globe and Mail*, *Slate Magazine*, *Wired Magazine Blog*, *U.S. News & World Report Blog*, *Financial Times Blog*, *Huffington Post*, *National Law Journal*, *Law Technology News* and *Marginal Revolution*. Professor Katz is also an avid blogger; his posts can be found at computationallegalstudies.com.

Professor Katz received his Ph.D. in Political Science and Public Policy (with an focus on Complex Systems) from the University of Michigan in 2011. He graduated *cum laude* from the University of Michigan Law School in 2005, and simultaneously obtained a M.P.P. from the Gerald R. Ford School of Public Policy at the University of Michigan.

Marc Lauritsen, JD

President, Capstone Practice Systems; Adjunct Professor of Law, Suffolk University Law School

Marc Lauritsen, author of *The Lawyer's Guide to Working Smarter with Knowledge Tools* and president of Capstone Practice Systems, is a lawyer and educator with over twenty-five years of pioneering leadership in advanced legal software. He earned two degrees from MIT and a J.D. from Harvard Law School. Capstone builds systems for some of the world's top law firms and departments, and is also energetically involved in pathbreaking projects on behalf of nonprofit legal organizations, such as LawHelp Interactive, which has delivered close to a million smart forms for free to low-income people and their advocates.

Marc has lectured and published widely on the uses and implications of information technology in the legal profession. He is on the editorial boards of *Artificial Intelligence and Law* and the *International Journal of Law and Information Technology*. He has trained hundreds of lawyers in the development and use of knowledge-based systems. He is a past director of the International Association for Artificial Intelligence and Law, a fellow of the College of Law Practice Management, and co-chair of the American Bar Association's eLawyering Task Force.

A full bio may be found at <http://www.law.suffolk.edu/faculty/directories/faculty.cfm?InstructorID=1211>

Peter Thiel, JD

PayPal co-founder

As a venture capitalist and entrepreneur, Peter Thiel has been involved with some of the most dynamic companies to emerge from Silicon Valley in the past decade. Peter's first start-up was PayPal, which he co-founded in 1998, and led as Chairman and CEO. Peter's tenure culminated in PayPal's sale to eBay for \$1.5 billion in 2002. After the eBay acquisition, Peter founded Clarium Capital Management, a global macro hedge fund. Peter also helped launch Palantir Technologies, an analytical software company, and serves as the chairman of that company's board.

Before launching Founders Fund with his PayPal partners Ken Howery and Luke Nosek, Peter was an active venture capitalist in his personal capacity, funding companies like Facebook, where Peter was that company's first outside investor and director. Peter's contributions to technology, entrepreneurship, and finance have been widely recognized, including by the World Economic Forum, which honored Peter as a Young Global Leader, and by BusinessWeek, which named him one of the 25 most influential people on the Web.

Peter is also involved with a variety of philanthropic, academic, and cultural pursuits. He serves as a primary supporter of the Committee to Protect Journalists, a group that promotes press freedom worldwide; the Singularity Institute for Artificial Intelligence, which seeks to foster the responsible development of advanced computing technologies; and the SENS Foundation, a medical charity dedicated to extending healthy human lifespans. Peter remains active at his alma mater, and has taught at Stanford Law School, in addition to serving on the Board of Overseers of the Hoover Institution at Stanford.

Peter received a BA in Philosophy from Stanford University and a JD from Stanford Law School.