

LST@Stanford

Dear Friends of the Stanford Program in Law, Science & Technology:



Welcome to this edition of LST@Stanford, the newsletter of the Program in Law, Science and Technology (LST). The LST Program continues to buzz with activity across all its constituent centers, projects and student organizations. The goal of this newsletter is to update you about law-, science- and technology-related work at Stanford Law School.

This issue includes an interview with Professor Emeritus John Barton, in which he talks about current issues in global technology transfer. We also hear from Professor Hank Greely, who discusses the challenges that neuroscience innovations pose for our legal system.

This issue also offers news on upcoming LST conferences and a recap of recent conferences. Further, the newsletter introduces you to the fellows working within the various LST Program centers. Finally, the presidents of the student groups SLATA and BioLaw provide an overview of their activities.

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Enjoy an inspired reading and please let us know if you have any questions or suggestions.

Very truly yours,

Roland Vogl,
 Executive Director, Stanford Program in
 Law, Science & Technology

Since the invention of the patent system, a great challenge has been how to reward innovators while ensuring equitable access to new technologies. In today's globalized world, this question has become more important than ever.

Developing nations need access to new technologies, in particular medical and agricultural technologies. However, numerous barriers ranging from intellectual property laws to insufficient infrastructure often impede this crucial access. In this interview, Stanford Law Professor John Barton discusses the inherent quandaries in global technology transfer and offers practical solutions for increasing technological access to developing nations.

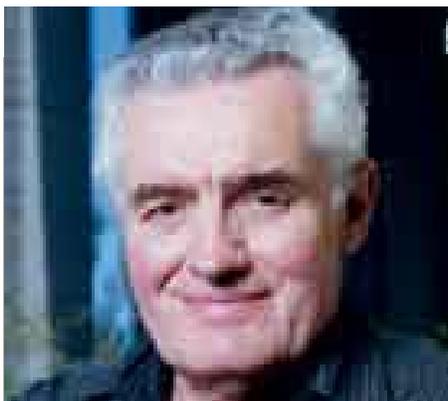
Professor Barton, what is the current focus of your research?

In order to facilitate developing nations' access to needed medications and vaccines, I am working on a proposal for reform in the global drug access system. I also just finished a paper on the way vaccine technology spreads throughout the world. My largest current project is a book on human rights and international organizations. The book is about reforming human rights oversight for nation states. There are certain human rights issues that are beyond government control, and the book addresses what should be done about these issues.

One of your most prominent areas of research has been the transfer of technology from the developed world to developing nations. What inspired you to dedicate much of your work to this area?

It was really a combination of things. I was inclined to study this field because of the need for developing nations to have up-to-date technology and because of the social justice requirement of access to technology. This inclination was balanced with my special interest in technology and the legal arrangements that encourage it.

What are the current difficulties in transferring technology between scientifically sophisticated and developing nations?



Professor Emeritus John Barton

Global Technology Transfer: Obstacles and Suggestions for Reform

An Interview with Professor Emeritus John Barton

John Barton has devoted his academic career to the examination of questions at the intersection of science and the law. A fellow of the American Association for the Advancement of Science, an honor rarely bestowed upon a law professor, Professor Barton has focused his scholarship on international law concerns ranging from national defense to issues surrounding the distribution of intellectual property across the developed and undeveloped world. His current work involves the study of the transfer of technologies, including vaccines and steel, between scientifically sophisticated and developing nations, and the development of a political theory of international organization and globalization. Professor Barton has chaired or been a member of more than a dozen academic and international advisory commissions, most recently heading up the International Commission on Intellectual Property Rights. Before joining the Stanford Law School faculty in 1969, Professor Barton was an engineer with Sylvania Electronic Defense Laboratories.

The biggest difficulties are human resources. Developing nations need more scientists and engineers, and most of all, more technologically capable managers. The other difficulty is developing national corporations' lack of interest in investing in technology. The process of taking a new product to market in developing countries often has not been mastered, and there is sometimes more profit in non-technological investments, so the incentives for investment have been lacking.

What specific impediments to technology transfer do you think need to be addressed?

First, I think there are overly restrictive intellectual property (IP) laws. These laws provide IP rights on technologies that should be in the public domain, either because the ideas are obvious or they were developed before the patent term began. I believe the patent system is currently too strong and needs to be rebalanced.

Second, I think – and this is just a guess – that some global oligopolistic industries are probably trying to impede the spread of technology and keep the technology in their own hands. To give an example, in the late 1990's, the U.S. Antitrust Division discovered that the manufacturers of graphite electrodes used in electric steel furnaces had developed a cartel to keep prices up and stall the spread of technology. I am not sure how widespread this type of occurrence is, but I would not be surprised if it were fairly common.

Additional pervasive antitrust enforcement would benefit technology transfer. Lastly, there are some countries that do not want to see technology spread to other countries for two reasons. First, because they are trying to protect their own technological edge and their own "national champions" (national firms that hold positions as leaders in global industry). Second, for security purposes, because they are afraid that terrorists will get their hands on the transferred technology, such as biotechnology, and use it for their own destructive purposes. I believe we should emphasize the spread of such technology as vaccines but limit the spread of some hazardous technology to reduce the risk to the world of nuclear or biological terrorism.

Do you anticipate much resistance in the global community or elsewhere to these kind of changes? (continued on pg 3)

Prof. John Barton

(continued from pg. 2)

Yes. The first resistance will likely be from the pro-IP community. The Supreme Court has recently made some big changes in patent law, but we need to see more. Thus far, the Court has weakened the possibility of obtaining an injunction, has raised the non-obviousness standard for obtaining a patent, and has expressed concerns about the patenting of fundamental scientific discoveries. There is a patent reform bill working through Congress that may improve procedures to prevent patent mistakes.

Second, some in the current scientifically leading countries are worried whether certain technologies should go to developing countries. For example, there is currently the question of whether aviation technology should go to China. There are many that are unhappy that Boeing farms out their technology to foreign countries because this creates potential future foreign competition.

Security is a genuine and reasonable concern, out of fear of terrorist access to technology, but commercial protectionism of technology ultimately harms us all and deprives us of the benefits of free trade of more advanced and capable products.

Lastly, I'm not sure we're currently taking antitrust law that seriously.

What challenges do you think might arise in the future?

One issue that is likely to arise is that many new technologies will begin to be developed abroad and outside of the US. The US is likely to be unhappy about this because it will lose its sense of control.

What policy areas are implicated in current and future technology transfer?

Policy decisions made in various areas, including IP law, antitrust law, and trade law - in the sense of whether or not we object when a foreign country is subsidizing an industry - are likely to have a great impact. Policy decisions regarding whether visas are given to work or study in the US and Europe and policy decisions surrounding security issues are also likely to have an influence.

How can we find the proper balance between rewarding innovators and providing access to developing nations?

Patents need to apply subject matter protection that is appropriate. There should not be patents on fundamental knowledge and discovery but for actual inventions and products. Patents should only be applied on obvious standards. I think the new Supreme Court decision, *KSR International vs. Teleflex*, is a step in the right direction, because it will reduce the issuance of patents on ideas that do not significantly advance the state of the art.

We need to make sure that fundamental scientific principals are officially available and that patents are used to protect products themselves. We need to avoid protecting knowledge but protect product inventions and new products themselves.

In terms of copyright and contract law, we need to be more flexible with reverse engineering. It seems important to me that it should be possible to examine the inner workings of a computer program in order to see if it can be improved upon. Yet, many licenses are designed to restrict such reverse engineering.

What would you say are the past trends versus the currently emerging trends in technology transfer?

About 25 years ago, the goal was import substitution, and the result was a heavy cost of transferring technology to a small market, as in establishment of a local pharmaceutical plant operating at a very inefficient scale. Today, in our globalized economy, this would be meaningless. It would be silly to put a plant in a developing country to satisfy the market of that country alone, except maybe for China or India. Now we are most focused on technology import to produce products for export to the rest of world. We are taking advantage of economies of scale and of global competition to keep prices down, and of the possibility of efficient production to create incentives to invest.

How can we foster research and development (R&D) in developing nations for their own IP?

We can foster R&D through improvements in education and human resources. In those areas, we are already seeing improvements in China and India. In China, we are seeing the emergence of public sector programs – national labs and funded research universities. There are great people and impressive research

coming out of these places, though it is small in scale compared to the US and Europe. The real questions are “Can this public sector research be applied to commercialized industry?” and “Can developing nations have their own effective internal technology transfer mechanisms?” The reality is that there are not many cutting-edge scientists in developing nation corporations, although multinational corporations are placing their own research companies in developing nations.

Do you believe that the appropriate IP rights or global technology transfer policy changes can significantly reduce poverty in developing nations?

One of the most important examples is agricultural biotechnology. It has the potential to significantly reduce poverty, but there are political barriers to it and to genetic engineering. People question its safety and effectiveness. It is, however, proving to be safe and an enormous potential poverty reducer.

Access to good healthcare would also help. Here, more critical than technology transfer is greater access to good diagnostics and good drugs and a better infrastructure. Improved local health care would greatly reduce poverty.

Developing new HIV drugs and malaria vaccines would also be valuable – that's where the need is. But would big donors, like the Gates Foundation, the World Bank, and the Global Fund, pay for the new products in a way that covers the IP licensing costs? If the product has a market in the developed world, the IP licensing costs should be waived in the developing world. In the US for instance, the licensing costs on anthrax remedies were waived during the anthrax crisis – the sanctity of patents was ignored.

For the poorest countries, IP is not an incentive for industry to invest. Consumers can't pay the prices, so the purchases will have to be by global donors. What payment policies will these institutions have and would they be willing to purchase the product and pay a share of research costs when the product is uniquely useful in the poor countries?



Professor Hank Greely

The Brain in Law: Neuroscience Innovations in Our Legal System

A Research
Update by
Professor Hank
Greely

Hank Greely is a Professor of Law and directs both the LST Program's Center for Law and the Biosciences and the Stanford Center for Biomedical Ethics' Program on Neuroethics. Greely is also part of a nationwide consortium of legal scholars, scientists, and jurists recently awarded a three-year, \$10 million dollar grant by the MacArthur Foundation to study the legal, ethical, and scientific aspects of recent neuroscience breakthroughs and their potential implications for the U.S. legal system.

Modern breakthroughs in neuroscience are stirring ethical, social, and legal questions among scholars, philosophers, and jurists that could potentially shape future directions of our legal system. Here, Professor Greely discusses the significance of such advances and the types of issues they raise.

Our societies are, for the most part, made up of human brains. Meaning, and our interpretation of meaning, exist in the brain; continuing discoveries are shedding light not only on the brain's nuanced complexities, but most importantly, on aspects of our own humanity.

With new and constantly emerging insights into brain science and increasingly advanced imaging methods such as Functional Magnetic Resonance Imaging (fMRI), we now have the opportunity to study living, healthy brains at work and to probe for further insights into their mechanisms. fMRI measures of the ratio of oxygenated versus deoxygenated blood in thousands of regions of the brain to gauge brain activity using what is called the BOLD (Blood Oxygen Level Dependence) hypothesis. This safe, non-intrusive method now allows us, among other things, to watch how brain functions develop and change through the years, from childhood and adolescence to old age, something that was not possible before. This is part of a real revolution in tools. Each technological advance feeds into potential changes for law and society, and yet we are still nowhere close to reaching the full potential of these new tools. And, of course, the law isn't just a passive actor when societies change. The law changes with society, but the law in turn changes society in an interactive, continual, and dynamic cycle. Neuroscience will change society, which will lead to legal changes, but the law can also affect how neuroscience is integrated into society.

I have spent more than 15 years studying the ethical, legal, and social issues of biosciences, particularly genetics, but also areas such as embryonic stem cell research and cloning. But in 2002, after attending a conference discussing the likely state of neuroscience in 2025, I began thinking about how neuroscience can affect our society. This led to my subsequent involvement with the Neuroethics Society and my increasing passion for "neurolaw," scholarship focusing on the intersection of neuroscience advances with ethics and law.

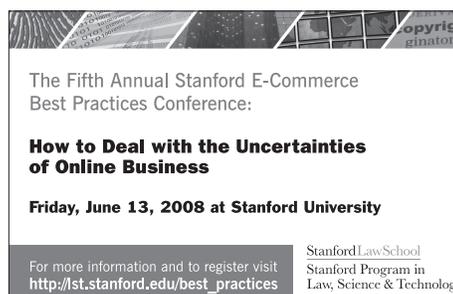
I think the implications of neuroscience discoveries will fall into five general categories:

1. Prediction: Advances in genetics and neuroscience have given us the tools to better predict and understand neurological disorders such as Huntington's, Alzheimer's, and Parkinson's diseases. We may soon be able to predict mental illnesses, such as schizophrenia, a terribly disabling disease that affects about 50 million people, 1 percent of the world's adult population. Ultimately, we may be able to predict anti-social behaviors such as violence, pedophilia, or psychopathy even before they emerge. If so, how should we apply these predictions to society? To what extent (if at all) should we screen out predictably dangerous individuals from institutions of our society – the police, the army, our schools?
2. Mind-Reading: Methods are being developed that claim to distinguish between mental states based upon differences in activation of certain brain regions. For example, a person's brain might react differently when he feels pain than when he does not, or might react differently to an object or scene he recognizes as opposed to the introduction of completely new material. The ability to know what an individual is "really" thinking or feeling would have vast potential applications in law, from criminal cases to disability claims; from claims of bias to lie detection. Yet the employment of such screening mechanisms comes at the cost of the invasion of a person's most private haven – his brain. Where once an individual could withhold information or, at the very least keep silent, such tools could eradicate this freedom and drastically change pre-trial discovery and the dynamics of trials. Of course, another concern is premature implementation and potential misuse of these tools: we must not only concern ourselves with the implications if these tools work and are used, but just as importantly, the possible consequences if they don't work and are still used.
3. Responsibility, Competence, and Consciousness: How do we know whether a person is insane or has "diminished capacity" and how should the criminal law deal with such people? When is a person deemed no longer able to make decisions or to stand trial? What (continued on pg. 11)

5th Annual Stanford E-Commerce Best Practices Conference

June 13, 2008

Stanford Law School



The Stanford E-Commerce Best Practices Conference has become one of the most popular events the LST Program organizes. The annual conference series was initiated in 2003 in a collaboration between the LST Program's Center for E-Commerce and the San Francisco Bay Area Chapter of the Association of Corporate Counsels (ACC). It aims to bring to the fore the many legal uncertainties that arise when doing business online. This year's conference, scheduled to take place on June 13, 2008, will again bring an impressive collection of lawyers, judges, business professionals and scholars to the law school to debate critical issues facing the e-commerce community, focusing on finding practical solutions to the issues at hand. For more information and registration, please visit http://lst.stanford.edu/best_practices.

For a full audio capture of all the panels held during the last event, please visit our recorded and past event archive at <http://lst.stanford.edu>.

For audio and video captures of previous LST events please visit our past events section on our website at <http://lst.stanford.edu> or the Center for Internet and Society website at <http://cyberlaw.stanford.edu>

Transatlantic Information Law Symposium

June 14, 2008

Stanford Law School

In the twelve years since the publication of the paper *Law and Borders – The Rise of Law in Cyberspace* by David G. Post and David Johnson, lawmakers and courts in the United States and European Union have had to address numerous new questions arising from new information technologies and online activities. What have we learned applying existing legal principles to new Internet phenomena? What new principles have been established and what new concepts underlie these principles? What role will new regulatory models and regimes play in the future?

The Transatlantic Technology Law Forum (TTLF) and the Freeman Spogli Institute for International Studies (FSI) will host the first Transatlantic Information Law Symposium on June 14, 2008 at Stanford Law School. The goal of the symposium is to bring together the leading experts from the United States and European Union to discuss current issues in information law and to promote mutual understanding of the different approaches.

The symposium will address the following topics:

- Constitutional Rights and IT in the EU
- The Right to Privacy in IT Systems in EU Law
- The Right to Privacy in IT Systems in US Law
- Freedom of Speech and the Internet in US Law
- Network Neutrality in US Law
- Property vs. Contract to Govern Online Behavior under US Law
- Property vs. Contract to Govern Online Behavior under EU Law
- The Future of Regulating Cyberspace - Open Discussion

The event is free and open to the public. Register at <http://lst.stanford.edu/transatlantic>

Eighth Annual Intellectual Property Scholars Conference

August 7-8, 2008

Stanford Law School

The Program in Law, Science & Technology at Stanford Law School will host the Eighth Annual Intellectual Property Scholars Conference on August 7-8, 2008. The IP Scholars Conference brings together intellectual property scholars to present their works-in-progress in order to benefit from the critique of colleagues. The conference is co-sponsored by the Berkeley Center for Law and Technology, UC Berkeley School of Law; the Intellectual Property Law Program, Benjamin N. Cardozo School of Law at Yeshiva University; the Center for Intellectual Property Law and Information Technology, DePaul University College of Law; and the Stanford Program in Law, Science & Technology, Stanford Law School. IPSC 2008 will include both plenary and breakout sessions. The conference will have space for six to seven plenary presentations and approximately 65 presentations in the breakout sessions, which will run on parallel tracks. To the extent possible, breakout sessions will be scheduled in thematic clusters and avoid obvious topic or interest "conflicts." The IPSC format is designed to facilitate free-ranging discussion and to help scholars hone their ideas. Papers presented should be works-in-progress that can benefit from substantial commentary and revision. Because of the importance of group discussion, we ask that attendees and presenters plan to stay for the entire conference. Information on presenting will be available soon. There is no charge to attend the conference. Conference presenters and attendees are expected to pay for transportation and lodging. Registration information and deadlines as well as hotel arrangements will be forthcoming soon.

SLS Hosts Legal Futures Conference

Some of the country's top legal minds gathered at Stanford Law School in early March to discuss the future of law and policy in a digital age. Co-sponsored by Google and the LST Program's Center for Internet and Society, the Legal Futures conference kicked off on March 14 with a speech from Federal Communications Commissioner Kevin Martin about the agency's auctioning off of wireless spectrum. "It has had a transformative effect upon the debate in terms of the openness of wireless networks," he said. Martin's speech was followed by a combination of discussions and more informal "Foo-style" panels—a format originated by O'Reilly Media in which the program is chosen by attendees.

"We had dozens of the most interesting legal thinkers charting a path for the future of Internet law," says Gelman. "We look forward to collaborating with Google on other Legal Futures events."

On March 15, Legal Futures opened to the public for standing-room-only debates about digital privacy, intellectual property, globalization, and other areas undergoing rapid change. There was no shortage of high-profile speakers, from Duke Law School's Jamie Boyle and Ninth Circuit Judge Alex Kozinski to General Counsels from Apple, Google and Time Warner. SLS speakers on the roster included Lauren Gelman, lecturer in law and executive director of the Center for Internet and Society; Richard E. Lang Professor of Law and Dean Larry Kramer; William H. Neukom Professor of Law Mark A. Lemley; and C. Wendell and Edith M. Carlsmith Professor of Law Lawrence Lessig.

Social Networking Law 2008 - Risks and Opportunities

Social networking sites have changed the way we work, play and interact with one another. On March 5, 2008 the LST Program's Center for E-Commerce hosted an evening panel discussion on cutting edge legal issues surrounding social networks. The panel, which included industry experts Mike Angus, Executive VP and GC of Fox Interactive Media; Susan Infantino, Product Counsel at Google Inc.; Chris Kelly, Chief Privacy Officer at Facebook; and Jay Monahan, VP and GC at Vuze, Inc., addressed both the law and emerging best practices in this field. The panel covered the following topics:

- The UGC Principles and best practices to address copyright and other IP infringement issues
- The protection of children in social networks
- Open APIs vs. closed systems: business opportunities and legal risks
- Different models for privacy and anonymity in social networks
- Special Terms of Use issues
- Spamming, phishing and other forms of abuse

CLB Junior Scholars Workshop

On April 5, 2008, the Center for Law and the Biosciences held a "Junior Scholars Workshop" on Law and Neuroscience, bringing together ten untenured faculty, fellows, and practitioners from around the country to present nine papers on a wide range of law and neuroscience issues. Four tenured faculty provided commentary on the papers. The workshop, sponsored by the Law School and the John D. and Catharine T. MacArthur Foundation, provided a unique boost to the next generation of scholars in this growing field.

CLB Hosts Fourth Annual Seminar on Law and Genetics

On January 10 through 12, the Center for Law and the Biosciences, working with the Federal Judicial Center, hosted over 25 federal judges for its fourth annual Seminar on Law and Genetics. The judges heard Stanford faculty from around the University and business and legal practitioners from the local biotech industry describe matters ranging from the Federal Circuit's approach to biotechnology patents to how single cells are taken for genetic testing from three day old human embryos. More importantly, the judges discussed the legal, ethical, and social implications of the scientific advances with the faculty and with each other. Twenty-five law students were also able to take part in the discussion around the lunch-time key note presentation by Stanford biologist Robert Sapolsky. This makes over 100 federal district and circuit judges who have now come to Stanford Law School for an intensive, and intense, encounter with the collisions between genetics and the law.

Chinese IP Judges Visit SLS for IP Seminar

In August 2007, the LST Program hosted a one-week IP seminar for Chinese IP judges examining current issues in U.S. IP law. The Chinese delegation included 16 high-level Chinese IP judges including Hon. Jiang Zhipei, the Chief Judge of Intellectual Property Division of the Supreme People's Court of China. The seminar, which was generously co-sponsored by LST affiliates Intel Corp. and Microsoft Corp, was taught by LST faculty (Mark Lemley, John Barton and Paul Goldstein) and other leading U.S. IP scholars, industry experts and judges, including Judge Randall Rader from the U.S. Court of Appeals and Judge Ronald Whyte and Judge Elizabeth Laporte from the Northern District of California.

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Recent Events

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On August 15th, the LST Program hosted an open session, "Protecting IP in China," which was co-sponsored by Orrick and the Stanford Law Society of Silicon Valley. The event, which featured Chief Judge Zhipai, Mei Gechlik, Lecturer in Law and Microsoft Rule of Law Fellow at Stanford Law School, David M. Simon, Chief Patent Counsel, Intel Corp. and Dr. Xiang Wang, Partner at Orrick, drew more than 300 people and was one of the most well-attended events in LST history.

The IP Seminar for Chinese judges was a unique educational event that promoted mutual understanding of IP cultures in both countries. As Dean Larry Kramer noted in his closing remarks, "[T]he world is becoming increasingly 'flat,' and there are many new opportunities, but also challenges that arise from the globalized economy. It is important that the decision-makers in different countries understand the different approaches to the difficult questions in IP protection, so that societies can fully live up to the challenges and take advantage of the opportunities."

The event was considered a great success, and the LST Program is planning to host a similar seminar for Chinese IP judges in September 2008.

The Eleventh International Conference on Artificial Intelligence and the Law (ICAIL)

The Eleventh International Conference on Artificial Intelligence and the Law (ICAIL) was held at Stanford Law School in June 2007. The conference, which is held every two years at a different location around the world, is dedicated to presenting scholarship and cutting edge research on ways we can use technology to improve our practice of and interactions with the law. Last year's conference drew more than 100 scholars and academics from Europe, Africa, Asia, and North and South America.

The projects presented were designed to help lawyers cope with legal information and to increase efficiency in lawsuits, cases and legal activities. Topics ranged from modeling legal arguments on computers to designing computer models of legal systems. One major workshop at the conference was "Legal Ontologies and Artificial Intelligence Techniques." Legal ontology is the unambiguous computer description of real-world concepts, allowing computers to have a representative model of the legal system. The purpose of legal ontology is to develop a relationship among computers—a "lingua franca"—facilitating more efficient computer interaction through the use of a common language. The workshop detailed how legal ontology is allowing multiple computers to work together on more complex issues like contracts and licensing.

A number of presentations focused on complexity theory and the law. Systems are currently being designed to measure the complexity of laws and to quantify them metrically. There is now a computer program that can systematically break apart a given legal rule or sentence—for example, a line from the Constitution—and calculate the number of different ways it can be interpreted based on ambiguity in language and punctuation. Based on technical variations alone, one law might have 1300 interpretations.

Harry Surden, the 2007-08 fellow at CodeX: the Stanford Center for Computers [<http://codex.stanford.edu/>], attended the conference. He related that one of the most interesting talks was Stanford Law Professor George Fisher's presentation on "Evidence and the Role of Storytelling in Legal Cases." Professor Fisher discussed the importance of the ability to tell a believable story in the courtroom when presenting or explaining evidence. Professor Fisher cited the O.J. Simpson case as an example and emphasized that the case turned in the defense's favor when the prosecution failed to tell a convincing story of why the glove did not fit.

Artificial intelligence is relevant in courtroom storytelling due to the fact that technology is currently being developed to create computer models of legal arguments. The goal is to have computers model how lawyers argue—how they win and how they lose based on storytelling

paradigms. According to Surden, "There are many researchers who believe that we are currently on the forefront of creating computer models that can deal with complex ideas like this. It will undoubtedly be difficult and a big challenge to create computer programs that can accurately describe all concepts involved in a legal scenario. But if developed, such models could have an important impact upon how we understand the operation of the law."

The conference also highlighted the fact that automated dispute resolution is catching on and helping attorneys settle lawsuits. Through these automated systems, the disputing parties enter anonymous bids for settlements into a computer—if the bids are close, the computer will offer a settlement; however, if the bids are too far apart, the computer will facilitate negotiations in hopes of reaching a settlement. One presentation focused on the use of this tool in divorce mediation. The husband and wife can secretly rank their personal priorities for the settlement issues, and based on these preferences the computer will come back with a settlement package that the husband and wife can accept or decline. If the package is declined the computer works on creating trade-offs for the couple and facilitates the negotiation in hopes of reaching an agreement.

The conference also suggested an emerging trend in electronic discovery tools. Given the new rules governing the historical data companies need to keep on record, the amount of data is astronomical. Computer programmers are, therefore, working on tools to help lawyers deal with the enormous amounts of data in lawsuits.

The workshop, "Supporting Search and Sensemaking for Electronically Stored Information in Discovery Proceedings," discussed how given the way discovery works in court, in which tremendous amounts of documents are requested, it is often difficult and time-consuming to sift through the sizable materials in order to find relevant information. Most first-year associates will look through an exorbitant amount of documents. As a result, scientists and engineers that specialize in artificial intelligence are currently attempting to create systems for organizing documents to allow lawyers to be more effective in *(continued on pg. 9)*

Center for Internet and Society 2007/08 Fellows

Chris Ridder

Chris' research interests include the full range of issues that arise at the intersection of technology and the law, including the application of intellectual property law to software and the Internet, and the impact of technological change on privacy and civil liberties. Prior to joining CIS, Chris was an associate at Simpson Thacher and Bartlett LLP, where he litigated intellectual property and complex commercial cases. Prior to joining Simpson Thacher, he was an associate at Fish & Richardson P.C., where he specialized in patent litigation. Chris received his B.A. with Highest Honors in Sociology from the University of California at Santa Cruz in 1993, and his J.D. from the University of California at Berkeley (Boalt Hall) in 2001. Prior to law school, he was a newspaper editor and publisher where he served, among other positions, as Editor-in-Chief of the Anchorage Press, the largest weekly newspaper in Anchorage, Alaska. From 2001-2002, Chris was a law clerk to the Honorable Mariana R. Pfaelzer of the U.S. District Court for the Central District of California.

Brandy Karl

Brandy's work includes public interest litigation and other projects related to technology and intellectual property regulation. Brandy's research interests focus on developments in copyright law and the application of the fair use doctrine. Brandy's publications include topics ranging from the politics of the Supreme Court to trademark dilution. Prior to joining CIS, Brandy practiced copyright and trademark law in Boston as principal of her own firm. She is a 2001 graduate of MIT and a 2004 graduate cum laude of Boston University School of Law, where she was a Paul J. Liacos Distinguished Scholar and an articles editor for the *Journal of Science and Technology Law*. Her website is <http://brandykarl.com>.

Center for Law & Biosciences (CLB) 2007/2008 Fellows

Dov Greenbaum

Dov comes to Stanford with a PhD in Genetics/Bioinformatics from Yale and a JD from UC Berkeley's Boalt Hall School of Law. His undergraduate degrees were in Biology and Economics from Yeshiva University in New York. Dov has always been interested in research and writing, particularly at the intersection of law and the biosciences. His current fellowship gives him the opportunity to develop both sides of his passions simultaneously. Dov's previous research focused on protein-protein interactions, and mRNA and protein expression in *Saccharomyces cerevisiae* using tools from genetics, microarrays, and bioinformatics. For the upcoming year, his projected research projects include: IP and scientific innovation in developing nations, science communication, pharmacogenomics, and bioethical issues relating to genomics and bioinformatics. In addition to the CLB Fellowship, Dov holds a concurrent fellowship: Society in Science, the Branco Weiss Fellowship, in affiliation with the Eidgenössische Technische Hochschule Zürich (ETH Zurich). Dov lives in Oakland with his wife and two children.

Emily Murphy

Emily R. Murphy joined Stanford Law School in 2007 as a CLB fellow with a joint appointment as a research fellow on the new MacArthur Foundation Law and Neuroscience Project based at the University of California, Santa Barbara. She holds a PhD in Behavioral Neuroscience from the University of Cambridge, where she was a Gates Cambridge Scholar, and an undergraduate degree in Psychology/Mind, Brain, Behavior from Harvard University. She has been a postdoctoral fellow at the Stanford Center for Biomedical Ethics since January 2007.

Emily is interested in the implications of neuroscience for ethical, legal, and social issues. On the MacArthur project, she coordinates the activities of the Addiction

and Antisocial Behavior network, a group of lawyers, philosophers, and neuroscientists. In her own research in the Center for Law and the Biosciences, she studies the use of brain-imaging as courtroom evidence, the use of neuroscience in policy formation with respect to addiction and criminal punishment, and how neuroscientific understanding of human behavior affects public and legal conceptions of responsibility.

Jaime S. King

Jaime S. King has been a fellow in the Center for Law and Biosciences since 2006, and in 2007 became the teaching fellow for the Law, Science, and Technology LLM Program. She holds a PhD in Health Policy from Harvard University and her JD from the Emory University School of Law. Before coming to Stanford, Jaime was a research fellow at the American Society of Law, Medicine, and Ethics in Boston researching medical malpractice, shared decision-making, and standard of care. Jaime's research focus over the past year was on reproductive genetics and the legal and social issues surrounding our new understanding of genetics. For the upcoming year, she will study mental health courts, and the treatment and protection of the mentally ill within the justice system. Jaime will research these issues in the framework of seven different mental health courts nationwide, to study both how their policies coalesce and how regional challenges shape each system. In addition, Jaime will study neuroscience, its applications to preventative detention, and the consequences and ethics of such enforcement. In Fall 2008, Jaime will join the faculty at UC Hastings in San Francisco as an Associate Professor of Law. She will be teaching Health Law, Torts, and Genetics and the Law.

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LST Fellows

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CodeX: The Stanford Center for Computers and Law

Harry Surden

Harry Surden is the inaugural fellow at CodeX: The Stanford Center for Computers and the Law, an interdisciplinary research center jointly operated by Stanford Law School's Program in Law, Science and Technology and the Stanford School of Engineering. His research focuses on computer-assisted legal compliance and the application of computer science theoretical frameworks to law, as well as issues related to intellectual property. Harry graduated in 2005 with honors from Stanford Law School, where he was chief research assistant to Professor Lawrence Lessig and recipient of the 2005 Stanford Law Intellectual Property Writing Award. He comes to the fellowship after a 2005-2006 clerkship with the Honorable Martin J. Jenkins, United States District Court Judge for the Northern District of California in San Francisco. Prior to law school, Harry worked as a software engineer for Cisco Systems and Bloomberg L.P. In Fall 2008 Harry will be joining the faculty at the University of Colorado Law School as an assistant professor of law.

Transatlantic Technology Law Forum (TTLF)

Pablo Ibàñez Colomo

Pablo Ibàñez Colomo joined TTLF as a TTLF Fellow in January 2008. He is also a researcher at the Law Department of the European University Institute in Florence, Italy. His research project is titled: "The Impact of Technological Convergence in the Television Sector: Towards a Single 'Technology-Neutral' Regulatory Framework. A Comparative Legal Analysis of Institutional and Substantive Issues in Europe and the U.S."

Jacques de Werra

Professor Jacques de Werra has been appointed as a TTLF Fellow for the academic year 2007/08. He is a professor of intellectual property law and contract law at the University of Geneva School of Law, Switzerland. His research project is titled: "The Law of Software Contracts - A Transatlantic Perspective."

Luca Escoffier

Luca Escoffier is a TTLF Fellow as well as a Doctoral Research Fellow at Queen Mary, University of London, UK. His research project is titled: "Patents, Valuation and Securitization of Intellectual Property in the Field of Medical Nanoscience in the U.S. and Europe."

Petra Heindl

Petra Heindl became a TTLF Fellow in Fall 2007. She is also a Research Affiliate of Stanford University's Forum on Contemporary Europe and an associate of Wolf Theiss, an internationally operating law firm in Central Europe. Her research project is "A Status Report from the Software Decompilation Battle: A Source of Sores for Software Copyright Owners in the European Union and the United States?"

Natascha Just

Dr. Natascha Just is TTLF's inaugural Fellow. She is also a post-doc Hertha Firnberg Scholar at the University of Vienna, Austria. Her research project is titled: "New Directions in the Governance of Communication: Competition Policy and Market Power Control in Convergent Communication Sectors. A Comparison between the EU and the U.S."

Marko Schauwecker

Marko Schauwecker has been serving as a TTLF Fellow since Fall 2007. He is also a research associate at the Max Planck Institute for Intellectual Property, Competition, and Tax Law in Munich, Germany, and a member of the European Max Planck Group for Conflict of Laws in Intellectual Property. His research project is titled "Extraterritoriality in Patent Law: A Comparative Analysis of Extraterritorial Application of Patent Law in the United States and Europe, and a Proposal for Global Guidelines for Resolving Future Cases."

Recent Events

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discovery. The workshop seemed to suggest that in the next five or ten years, we will see a large increase in legal informatics tools that will help lawyers quickly search through evidence and cases for relevant information. These informatics tools will also be able to make intelligent choices on what else might be relevant to the search topic.

As Surden proposes, "What the conference as a whole demonstrates is that we are on the forefront of creating systems that can give us useful and relevant answers we would not have otherwise come up with on our own. Such information should give us new insights into the legal system."

For more information on the ICAIL conference, please visit <http://www.iaail.org/icaill-2007/>.

Stanford Law & Technology Association (SLATA)



SLATA Co-Presidents Emily Fenner and Elspeth Simpson White

SLATA is a student-run organization whose goal is to promote law and technology. Through regularly sponsored events, such as speakers and panels, SLATA creates a forum for discussion on a variety of issues at the heart of law and technology ranging from intellectual property law, to law and cyberspace, to law and biotechnology. SLATA is run by a core organizing group of eight students and caters to a 200-member list.

Some of SLATA's key activities include speakers, partnerships with related organizations, and student services:

Speakers and Other Events

SLATA Speaker Series: Events this year have included a talk by Wikipedia founder Jimmy Wales, a presentation on the patent bar exam, and a career panel for first-year students.

Lunch with the JDs: SLATA organizes lunches that bring together law students and Bay Area IP lawyers to share their experiences, advice, and insights. These lunches are an opportunity for networking and for learning about current issues faced by IP practitioners.

Dinner with the Profs: SLATA also organizes dinners to allow small groups of students to interact with their professors in an intimate, informal setting and to discuss law and life. Past dinners have included Larry Lessig, Paul Goldstein, Mark Lemley, and Hank Greely.

Mentoring: SLATA hosts an annual career panel for first-year students interested in IP. The panel introduces first-year students to a variety of careers in IP ranging from technology transactions to litigation to patent prosecution. SLATA has also built a database of students' summer jobs in IP to connect first-year students with upperclassmen who share similar interests.

Most of SLATA's events are catered to SLS faculty and students as well as local IP practitioners. SLATA's events are generally open to the public in order to create a strong network not only within the law school community but also within the surrounding IP community.

Partnerships

CIS/SLATA Speaker Series: SLATA co-hosts a regular speaker series with the Center for Internet and Society. Recent CIS/SLATA talks have included "How Blogs Affect Legal Discourse," and "The Case Against the Google-DoubleClick Merger."

This year, SLATA aims to reach out and integrate with other Stanford organizations. It has already started to do this by working with related groups like the Stanford Program in Law, Science and Technology, the Stanford Center for Computers and Law (CodeX) and the Stanford Entertainment and Sports Law Association.

Student Services

Outlines: SLATA provides student-prepared outlines to Stanford Law students, dating from as far back as 1994. These outlines are easily accessible online and provide a convenient wealth of study material. The Stanford Law Library also provides these outlines in paper form.

Other Services: SLATA runs online bookstores through Amazon.com and BarnesandNoble.com. The bookstores serve both as a convenience to law students as well as a source of revenue that allows SLATA to further provide for the SLS community. In the past, SLATA has used these funds to provide refreshments during exams and noise-proof headphones for the library.

For more information, please contact:

SLATA Co-Presidents Emily Fenner, efenner@stanford.edu, and Elspeth Simpson White, elspeth@stanford.edu. Emily and Elspeth are both third-year law students who have been active in SLATA since they were first-year students. Emily is

interested in trademark and copyright law, while Elspeth is focused primarily on patent law.

BioLaw and Health Policy Society



BioLaw and Health Policy Society Co-Presidents Priya Pai and Patti Zettler

Stanford BioLaw and Health Policy Society is a student-run organization comprised of students from Stanford's Law School, Medical School, Graduate School of Business and other graduate programs related to the biosciences. The organization was founded in 2002 with the primary goal of promoting discourse on the myriad legal and policy issues surrounding biotechnology, healthcare, mental health, biomedical research and bioethics. A secondary goal is to inform the student body at Stanford about career opportunities at the interface of biosciences and the law, and to provide networking opportunities with professionals in these fields. BioLaw also seeks to support students in effecting change in current health and bioscience policy. To achieve these goals, BioLaw sponsors a speaker series and works with other student organizations in addition to the Center for Law and Biosciences.

Speaker series

BioLaw sponsors a biweekly lunch speaker series. Speakers have varied backgrounds, including attorneys at Silicon Valley law firms, in-house counsel at biotechnology companies, biotechnology entrepreneurs, faculty members from Stanford and other universities in the Bay Area, as well as scientific researchers. Past speakers have included:

– Sean Johnston, J.D. '89, Ph.D, In-House Counsel and Vice President, Genentech

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Prof. Hank Greely

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can we say about the degree of consciousness of individuals in a vegetative or minimally conscious state? New techniques may give us new powers to determine an individual's mental capabilities, which may be important within the existing rules or may lead us to change those rules.

4. **Treatments:** The funding of neuroscience research is primarily driven by medicine and health and the search for prevention or cures. Neuroscience should help produce such treatments but those will sometimes raise legal questions. If we could vaccinate people against drugs of abuse, of example, should we require such vaccinations of convicted drug users? Of all children? If psychosurgery or deep brain stimulation could eliminate aggressive behavior, could it be offered, or even required, in lieu of criminal punishment?
5. **Enhancement:** Most of us now, from time to time, enhance our brain functions with drugs – particularly caffeine. In the future, it may be possible to improve our mental abilities much more powerfully, providing heightened memory or advanced mental acuity. Another issue for discussion revolves around what limits, if any, we should put on such enhancements.

And, of course, on all these topics, one of our responsibilities as academics is to keep the discussion honest and accurate, to keep pushing the media toward precise reporting and away from dramatic, overhyped headlines. Recent months have seen a flood of “neurohype,” some of it from very respected sources, such as *NPR*, the *New York Times*, and the *Los Angeles Times*, on using neuroscience for lie detection or for political ends. We cannot let the important but speculative discussions of possible future issues mislead people into thinking all of these technologies already exist.

I want to follow all of these issues, in my work as a law professor and as part of larger groups. The Law School's Center for Law and the Biosciences is intimately involved in neurolaw, as are the Stanford Center for Biomedical Ethics, the

Neuroscience Institute at Stanford, and the Neuroethics Society. One of the most exciting forums for exploring some of these issues right now is the Project on Law and Neuroscience, which I help direct.

The project will address law and neurosciences through three groups. The three current groups, which we call “networks,” focus on what neuroscience can usefully tell the law about:

1. Addiction
2. Decision-Making by Normal People
3. People with “Diminished” Brains (both children and abnormal adults)

Each network will include about 15 neuroscientists, legal scholars, judges, philosophers and others, co-directed by one neuroscientist and one legal expert. (I co-direct the group on “differing brains”). The networks will review current research and develop proposals for improving law, policy, and legal proceedings, and will serve as “mini-granting agencies” to fund both neuroscientific and legal research that will provide useful answers for the legal system. We hope to help ensure that the law uses these developing technologies well, to maximize their benefits and minimize their harms. I expect it to be both important and great fun.

The Project on Law & Neuroscience, sponsored by the John D. and Catharine T. MacArthur Foundation, is headquartered at the University of California, Santa Barbara (UCSB) and directed by Michael Gazzaniga, professor of psychology at UCSB. Former Supreme Court Justice and SLS alumna Sandra Day O'Connor serves as the honorary chair.

For more information on these and related issues, please visit www.law.stanford.edu.

LST Student Organizations

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- Alain C. Enthoven, Ph.D., Professor of Public and Private Management (Emeritus), Core faculty member at the Center for Health Policy/Primary Care and Outcomes Research, Stanford University
- Philip Zimbardo, Ph.D., Professor (Emeritus) of Psychology, Stanford University
- Andrew Fire, Ph.D, Nobel Laureate and Stanford Professor of Pathology and Genetics
- Irv Weissman, Stanford Professor and Founder of Stem Cells, Inc.

Partnerships

Over the past year, BioLaw has co-sponsored speaker events in partnership with a variety of organizations, including the Center for Law and Biosciences, the American Constitution Society, the Criminal Law Society, the International Law Society, the Women of Color Action Network, and the Women of Stanford Law. BioLaw members also have the opportunity to attend Journal Club meetings hosted by the Center for Law and the Biosciences.

BioLaw receives its funding from the Office of Student Affairs at Stanford Law School.

For more information, please contact BioLaw co-presidents Priya Pai at ppai@stanford.edu and Patti Zettler at pzettler@stanford.edu.

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