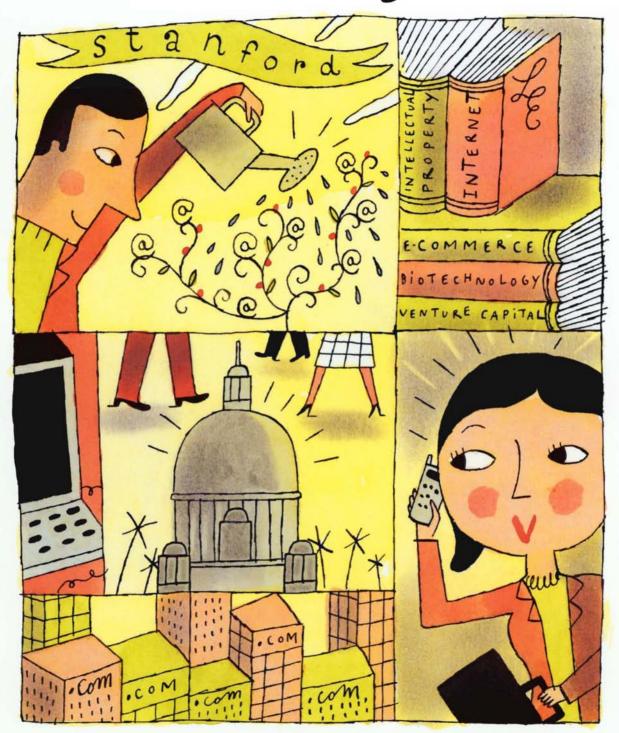
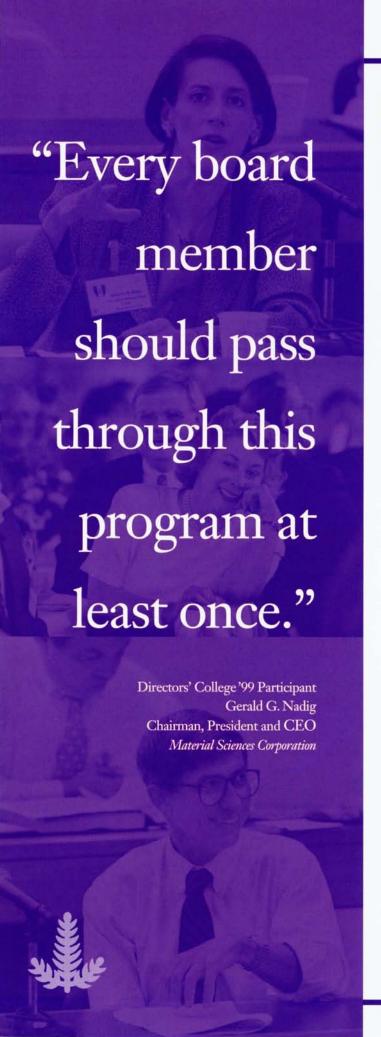
Stanferd y e r



Taking Care of High Tech

How Stanford lawyers help sustain the dot-com phenomenon



Stanford Law School Executive Education Programs



Since 1993 the Executive Education Programs at Stanford

Law School have provided a national forum for leaders in the business and legal communities to share their expertise. Our faculty will challenge and inspire you. We invite you to join us.

The United States Patent and Trademark
Office Comes to Stanford Law School
April 11

Directors' College 2000

June 4-6

General Counsel Institute
October 23-24

Contact us: Executive Education

Phone: 650-723-5905

Fax: 650-725-1861

Visit us at our website: http://lawschool.stanford.edu/execed

contents

SPRING 2000

FEATURES

HIGH-TECH LAWYERS

10 VIRTUALLY INDISPENSABLE Stanford lawyers have shepherded hundreds of start-ups, advised a NASDAQ Who's Who, and helped build the infrastructure of Silicon Valley.

22 TAKING IT TO THE STREETS Larry Irving wants to make sure the e-revolution doesn't end in the suburbs.

24 INTERNET ENFORCER
Department of Justice official Christopher Painter is sending a message to cybercriminals: We know how to find you.



26 OUT HERE ON THE FRONTIER Can the law keep up with bioscience? Law School faculty and students are doing their part.

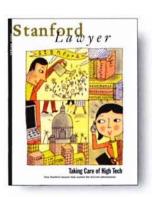
NEWS BRIEFS

Janet Reno unveils cybercrime initiative Experts discuss Web privacy issues Barton warns against broad food patents				
			Wald says Prop. 22 harms children	9

DEPARTMENTS

From the Dean	2
Letters	4
Professors in Print	31
Classmates	33
In Memoriam	60
Law Gatherings	61





Cover Illustration by Cyril Cabry

from the dean

Leading the debate about the implications of technology



BY KATHLEEN M. SULLIVAN

NEW TECHNOLOGIES HAVE BROUGHT breathtaking change to the practice of law and business. And Stanford Law School is at the epicenter of that change. Our alumni dominate Silicon Valley law firms, companies and investment firms, as the excellent articles in this issue make clear. Our faculty prepare students for this rapidly changing world not only through classic courses on copyright, trademarks, and patents, but also through innovative courses on e-commerce, intellectual property in cyberspace, biotechnology law and policy, venture capital, and technology as a business asset. And the Law School itself is increasingly a forum for lively public discussion and debate about the challenges that new information technologies pose for law and policy.

Two extraordinary public events at the Law School this winter demonstrated as much. First, Attorney General Janet Reno, California Attorney General Bill Lockyer and the National Association of Attorneys General chose Stanford Law School as the site for a major conference in January on issues that the Internet presents for law enforcement. Nearly half the nation's state attorneys general and their staffs joined federal prosecutors, computer experts and members of the press to discuss how to prevent fraud, hate, and dangers to children on the Internet, and how to govern commercial transactions in an unbounded global marketplace.

In a keynote address to the conference, Attorney General Reno made clear why she chose to make her first major Internet speech at Stanford, in California ence featured more than 40 of the nation's leading high-technology lawyers, entrepreneurs, and law professors, and attracted an audience of technology lawyers and entrepreneurs as high-powered as the panelists.

The conference packed an impressive series of presentations into a single day. As Bill Fenwick, founder of Fenwick & West and a leading voice in Silicon Valley law practice, wrote me in congratulating Stanford on the conference, "I left the conference feeling I had just heard a weeklong presentation of the thinking of a number of academics and others on what is a most important issue presented by the Internet."

The panels made clear that there is not one single issue of privacy on the Internet but several: the privacy of space the eve of the privacy conference helps to capture the unique combination we can offer of traditional excellence and new ideas:

Picture the panelists and numerous alumni, faculty, students, and guests from a wide range of high-technology businesses and law practices enjoying a buffet dinner by candlelight in the Rodin rotunda of the beautifully refurbished Stanford Art Museum, now known as the Iris & B. Gerald Cantor Center for Visual Arts. Over in one corner you might have seen Whitfield Diffie, inventor of public key encryption, chatting with present and former Department of Justice officials about hackers who threaten the security of online communications.

In another corner you might have seen comparative law experts contrasting the European view that data privacy is a

Stanford Law School is ideally situated to lead the way in developing law and policy for this new world, and I aim with the help of my colleagues and advisors in our Law, Science & Technology program to make it the best forum in the nation for doing so.

and the heart of Silicon Valley. Announcing a 10-point plan for controlling the "dark side" of the Internet even as we enjoy its revolutionary benefits, the Attorney General emphasized the need for cooperation across traditional federal-state and public-private boundaries. "None of us can do this by going it alone," she said, promising that the federal government would seek increasing collaboration with the states and with industry in keeping hackers, cyberterrorists, and cyberstalkers in check.

The Law School hosted a second remarkable gathering of high-technology experts in February for a conference on "Cyberspace and Privacy." Organized with great energy by the student editors of the Stanford Law Review and the online Stanford Technology Law Review, with the support of the Law School's Program in Law, Science & Technology, the confer-

we might wish to protect from offensive or disturbing images, the privacy of personality we might wish to protect from the unseen intrusion of commercial data collectors, the privacy of property we might wish to protect from unlicensed copying and distribution, and the privacy of communications we might wish to protect from prying eyes. The debate and discussion was lively on all points. The papers from the conference will appear in a forthcoming issue of the *Stanford Law Review* and online in the *Stanford Technology Law Review* (www.law. stanford.edu/publications/).

Stanford Law School is ideally situated to lead the way in developing law and policy for this new world, and I aim with the help of my colleagues and advisors in our Law, Science & Technology program to make it the best forum in the nation for doing so. A single image from human right with the American tendency to favor the free flow of commerce and speech. A third cluster of academics might have been found debating the relative merits of treating our personal privacy online like property that might be contracted away for a fee; a fourth, the likelihood that trusted systems will efficiently enable artists and publishers to reap license fees online for use of their works.

All this talk among the marble figures and columns conjured up what is best about Stanford: Venerable setting; new ideas. Traditional excellence; embrace of innovation. Reveling in beauty; solving difficult problems. The scene was the living image of the collaboration Attorney General Reno sketched in her Stanford address: a collaboration between the worlds of academia, law, business, and public policy. We aim to provide such a setting for many collaborations to come.

Stanfordver

Issue 57 / Vol. 34 / No. 2

Editor KEVIN COOL jkcool@law.stanford.edu

Communications Director ANN DETHLEFSEN annd@stanford.edu

Art Director, Design & Production AMPARO DEL RIO amparo@ix.netcom.com

> Copy Editor DEBORAH FIFE

Contributing Editors NINA NOWAK ERIKA WAYNE

Class Correspondents 57 ESTIMABLE ALUMNI

Editorial Interns MICHAEL FINNEY (AB '00) GLORIA HUANG (AB '01)

> Production Associates JOANNA MCCLEAN MARY ANN RUNDELL LINDA WILSON

STANFORD LAWYER (ISSN 0585-0576) is published for alumni and friends of Stanford Law School.

Correspondence and information should be sent to Editor, Stanford Lawyer, Stanford Law School, Crown Quadrangle, 559 Nathan Abbott Way, Stanford, CA 94305-8610: e-mail law.alumni.pubs@ forsythe.stanford.edu

Copyright 2000 by the Board of Trustees of Leland Stanford Junior University Reproduction in whole or in part, without permission of the publisher, is prohibited.

Stanford Lawyer is listed in: Dialog's Legal Resource Index; and Current Law Index and LegalTrac (1980-94). Issues of the magazine since 1966 are available on microfiche through William S. Hein & Co., Inc., 1285 Main Street, Buffalo, NY 14209-1987.

Printed on recycled paper

letters

Mills should be commended

The petty carping by fellow alumni (Letters, Fall 1999) concerning the article about Cheryl Mills and her defense of the president in the impeachment proceedings demonstrates that as lawyers, the writers have forgotten the first duty of the attorney is to defend his or her client. The attorney is not to judge him. These lawyers have also forgotten another cardinal rule when it comes to criticism of counsel in a legal proceeding: that is, first read the underlying transcript and get your facts right. The third rule is that if the forum in which the defendant was tried has acquitted, the defendant was not guilty. Mills is to be commended, not criticized. Criticism of her client is not appropriate in the forum Stanford Lawyer provides.

If Mills's spirited defense "contributed to the weakening morals of this country," as one writer argued, then no one whom the writer has prejudged is entitled to a defense.

Ferome F. Downs '49

Criticism was misdirected

One has to wonder whether the decreasing emphasis on trial lawyering at law schools like Stanford informed the readiness of Stanford Lawyer letter writers (Fall 1999) -all relatively recent graduates-and Professor Tom Campbell to condemn the testimony of President Clinton under oath instead of criticizing his interrogators.

Even Monica Lewinsky agreed that, as the questions were put, the President's answers were truthful. The problem lay in inquiring vaguely about such matters as "sexual relations." A trial lawyer of any competence would have asked more concretely, for example, whether the couple had had sexual intercourse. Only then would those who care have genuine reason to know whether Clinton would lie or be willing to settle for scandal.

7ames R. Madison '59

Theoretically speaking

I was intrigued by the startling revelation of John Donohue and Stephen Levitt, as reported in the Fall 1999 issue, that abortion reduces crime rates. The article states that "the scholars estimate that for every 10 percent of total pregnancies aborted, a concomitant 1 percent reduction in crime results." This is a powerful theory, and obviously one of great importance to society (the annual cost of crime must be in the billions of dollars in the United States alone); but I am convinced that the theory is incomplete in some aspects.

As stated, the theory describes a linear relationship between abortion and crime rate reduction; but I am convinced that the relationship is not linear, but geometricthat is, crime rates decrease faster than the rate of abortion increases.

The power of a scientific theory is shown by its ability to predict correctly the outcome of experiments. Holland's corollary (let us call it) to the Donohue/Levitt theory is clearly an improvement. Under the Donohue/Levitt theory, if 100 percent of total pregnancies were aborted, the crime rate would fall by 10 percent; but under the Holland corollary, the crime rate would eventually fall by 100 percent.

I am convinced that the Holland corollary is correct, but I can understand why Donohue/Levitt did not become aware of it: their theory is new, and has not been put to the test for a sufficient length of time for subtle effects to be noticed.

I hope that they will soon conduct a field trial of sufficient scope and length to lay bare this, and possibly other, interesting effects of abortion. Obviously, if I am right, the monetary value of my corollary is enormous. I will not charge for the use of my corollary, however: I offer it freely to the world, in the interest of scientific advancement.

William E. Holland '74

news briefs

AGs Inspect the Internet

Reno uses visit to announce cybercrime initiative

BY KATHLEEN O'TOOLE, STANFORD REPORT

ESS THAN A month before hackers' attacks crippled some of the world's leading websites and alarmed Wall Street, U.S. Attorney General Janet Reno announced a broad new initiative for fighting computer crime at a meeting of the National Association of Attorneys General, cosponsored by the Law School.

Speaking to several hundred state prosecutors and others at Stanford's Dinkelspiel Auditorium on January 10, Reno proposed a multijurisdictional "LawNet," which would include around-the-clock teams of highly skilled computer crime investigators and prosecutors, regional computer forensic laboratories, and local-state-federal sharing of equipment, expertise, and training expenses.

"The Internet is indeed a splendid tool of wonder, but there is a dark side—of hacking, crashing networks, and viruses—that we absolutely must address," Reno told her state counterparts. She invited them to Washington to plan a coordinated operation.

Reno's call to action seemed particularly timely when, four weeks after her speech, a flurry of hacker activity paralyzed Internet giants Yahoo!, eBay, Amazon.com, and several other major e-commerce sites. The FBI scrambled to find the culprits, characteristically hidden in the worldwide maze of connected computers.

Law enforcement agencies need to strengthen international relationships because, "international borders don't mean anything" to cyber criminals, Reno said. She noted that a cyberstalker in Palo Alto

might actually reach a victim in San Jose by routing anonymous, threatening messages through New York, Argentina, and Japan. She suggested consideration be given to allowing witnesses in other countries to give court testimony via video conferencing. California Attorney General Bill Lockyer, who hosted the two-day conference in cooperation with the Law School's Program in Law, Science & Technology, said he was certain that the state attorneys general would take Reno up on her offer. He told reporters that the states want to ensure that national standards are developed for computer forensics.

Reno said LawNet also would need to focus on privacy issues, for example, protecting consumers from invasions like the CD Universe extortion case reported in newspapers the day of her speech. In that case, an Eastern European hacker allegedly stole credit card information from the Internet music retailer and posted the information on a website after the company refused to pay him \$100,000.

Later in the conference, Dean Kathleen Sullivan urged the prosecutors to be pragmatic in proposing new laws to regulate the Internet. She asked them to be neither generalists who insist all current laws are adequate nor particularists who believe new technology is so drastically different that existing laws don't cover Internet crime.

The Internet provides new opportunities not only for criminals but also for law enforcement, Sullivan said. Hate groups, such as the Ku Klux Klan, for example, may use it to recruit members faster than by old methods, but law enforcement agencies also can use the Internet to better monitor the activities of these hate groups, she said. Before proposing new laws to address problems on the Internet, she suggested the attorneys general analyze whether self-regulation, technology, or market solutions might work.

"The trick for you," Sullivan told the prosecutors, "is to decide when and where you are really needed."

Dean Kathleen Sullivan greets U.S. Attorney General Janet Reno and California Attorney General Bill Lockyer.



"The Internet is indeed a splendid tool of wonder, but there is a dark side—of hacking, crashing networks, and viruses—that we absolutely must address." ATTORNEY GENERAL JANET RENO

What to Do about Privacy?

Major Law School conference examines Internet issues

that emerged at a conference on Internet privacy held at the Law School February 7 was that there is no consensus about how best to protect the privacy of Web users.

The more than 40 scholars, government officials, and industry representatives who spoke at "Privacy and Cyberspace: A New Legal Paradigm?" had disparate views not only about how to protect privacy, but about what constitutes privacy in the borderless, freewheeling Internet universe.

The conference was organized by the Stanford Law Review and the Stanford Technology Law Review. "The student organizers were extraordinarily far-reaching and energetic," said Dean Kathleen Sullivan, who served as moderator.

Panelists presented information and analysis on nearly every aspect of the legal and policy dimensions of Internet privacy, including whether and to what extent companies should be allowed to harvest users' personal information, how to safeguard constitutional freedoms while also making the Web secure, and how vigorously the government should regulate the Internet.

ACLU President Nadine Strossen warned that government restrictions in cyberspace would further erode constitutional guarantees to freedom of speech. "What some would argue is a new paradigm, leaving each to his or her own, I think is actually an old 18th-century paradigm—namely, the First Amendment," she said.

John Place '85, general counsel at Yahoo!, Inc., said overzealous attempts to govern the Internet could result in disabling one of the Web's key features—the open and unfettered exchange of information. "The Internet can be the ultimate enabler of a participatory democracy that our Founders envisioned," he said. "[Recent legislative proposals] are more than chilling, they're almost like prior restraint."

Kent Walker '87, associate general

counsel of America Online, talked about the changing dynamics of privacy and their effects on community. When does individual privacy damage the collective good? "When I unlist my phone number, I impoverish the rest of you. I can intrude on you, but you can't find me," he said. In an Internet context, said Walker, these issues show up, for example, in debate about whether companies should be required to have "opt-in" policies that get users' express permission before the company collects basic personal information. Walker asked, "Will we insist on privacy or community as our default position?"

And how does one define privacy in a medium where voyeur site hosts invite the world into their bedrooms and bathrooms? "In the world of Jennycam there is no longer agreement on what is reasonable privacy," said Jeffrey Rosen, a law professor at George Washington University and legal affairs editor of New Republic.

Rosen expressed concern about how Web users'
personal data is being categorized and commodified, and urged greater vigilance in monitoring this trend. "Let's not act like cows subject to Internet determinism," he said.

Marc Rotenberg '87, executive director of the Electronic Privacy Information Center, urged policymakers to "find the answer in our own legal traditions."

Federal Trade Commissioner Mozelle Thompson said online companies ultimately benefit when they protect the privacy of their users because such practices

Campbell Makes Senate Bid

PROFESSOR OF LAW TOM CAMPBELL, a threeterm congressman, is running for the Senate.

Campbell, who faced two other Republican candidates in the March 7 California primary, became the GOP choice to challenge Sen. Dianne Feinstein in November. Political analysts said

Campbell will have a tough battle trying to unseat Feinstein, a popular and well-financed incumbent. One strength, they say, is his unquestioned integrity. "He's willing to take politically unpopular positions



and stand his ground," Kevin Spillane, a campaign consultant to Campbell in 1992 and 1995, told the San Jose Mercury News.

"I want the federal government to constrict our freedom less in our personal lives, our work, and our schools, so that we can realize that opportunity to the fullest," Campbell said.

Campbell served two terms in the House beginning in 1989, lost a 1992 bid for the Senate, and in 1995 returned to the House. While on leave from the Law School, he has taught January-term courses on antitrust, the European Union, and separation of powers. If elected to the Senate, Campbell will relinquish his tenure. If he is defeated, he is expected to return to the Law School full time. ■

build confidence and improve the likelihood that customers will return. He noted that the government was keeping a close watch on developments regarding Internet privacy because "self-regulation has been only a partial success."

Marcia Adams '78, corporate counsel at Hewlett-Packard, said her company has aggressively pushed for privacy standards, and she predicts a backlash against companies that do not. "We feel we'll have a competitive edge because people will trust us," she said. ■

NEWS& NOTES

ONE LAW SCHOOL faculty member and three Law School alumni are on the team that will select the new president of Stanford University. Kenneth and Harle Montgomery Professor of Public Interest Law Pamela Karlan is one of six faculty members from across the University who are part of the 17-member presidential search committee. Also on the panel are Pamela A. Rymer '64 a U.S. Court of Appeals judge for the Ninth Circuit; Isaac Stein '72, president of Waverly Associates Inc.; and Warren Lyons '72, a consultant with Textron Inc. Both Rymer and Stein are Stanford University trustees. President Gerhard Casper will step down on August 31 after an eightyear tenure.

THE NORTHERN CALIFORNIA ASSOCIATION of Law Libraries honored Iris Wildman, law librarian emerita, with its second Professional Achievement Award. Wildman, who retired in 1995, joined the Crown library fulltime after receiving her JD degree at Santa Clara, and in 1985 became senior reference and special projects librarian. In 1989, she coauthored the book Researching Copyright Renewal. Then, motivated by the need of law students applying for clerkships for timely information, she developed Federal Judges and Justices: A Current Listing of Nominations, Confirmations, Elevations, Resignations. Retirements.

Simon, Karlan Named to Endowed Chairs

ILLIAM H. SIMON, an ethicist and commentator on professional responsibility, has been named the first holder of the William W. Saunders and Gertrude H. Saunders Professorship in Law. Simon previously was the Kenneth and Harle Montgomery Professor of Law, a title he relinquished to occupy the Saunders chair.

A graduate of Princeton and Harvard, where he earned his JD in 1974, Simon served in private practice in Boston from 1974 to 1977, and spent three years following that as staff attorney for the Legal Services Institute. He joined the Stanford

faculty in 1981. He was a Guggenheim fellow in 1994.

Simon's research in recent years has centered on ethics and professional responsibility in the legal community. He wrote the book *The Practice of Justice: A Theory of Lawyers' Ethics* (Harvard University Press, 1998).

The Saunders chair was established with a \$2-million gift last year from William '48 and Gertrude Saunders.

Pamela S. Karlan has been named the new Montgomery Professor of Law. Karlan, who also serves as an academic associate dean, earned her bachelor's, master's and juris doctor degrees from Yale. After leaving Yale, she clerked for U.S. District Court Judge Abraham D. Sofaer and for Supreme Court Justice Harry A. Blackmun. From 1986-88 she served as assistant counsel for the NAACP Legal Defense & Educational Fund. In 1988 she was hired as an associate professor at the University of Virginia and was promoted to professor in 1993. She joined the Stanford faculty in 1998.

Karlan is the coauthor of two leading casebooks: The Law of



left: Pamela Karlan right: William Simon

Democracy: Legal Structure of the Political Process and Civil Rights

Actions: Enforcing the Constitution. She has been active in litigation involving the Voting Rights Act of 1965, twice arguing and winning cases before the Supreme Court.

Another First for Justice O'Connor

U.S. Supreme Court Justice Sandra Day O'Connor '52 has become the first woman to have a federal courthouse named after her. A new \$90 million U.S. District Court building in Phoenix, expected to open this fall, will be

Arizona Senators John Kyl and John McCain pushed through legislation dedicating the building in honor of O'Connor. "I asked her if it would be okay, and for the first several months she said no. I finally persuaded her," Kyl told the *Arizona Journal*.

Senate rules generally require that federal buildings only be named after persons who are at least 70 years old and retired, but an exception was granted for O'Connor. "To serve as a judge is, in and of itself, a great honor and a heavy responsibility. To also have my name live on after I'm gone is an even greater honor," O'Connor said.

Hungry for Answers

Sweeping U.S. patents may threaten world food supply, warns Professor John Barton at AAAS meeting

an ambitious and elusive goal in this or any millennium, may depend less on our ability to grow enough food than on our ability to resolve disputes about how it is grown, according to George E. Osborne Professor of Law John Barton '68.

In a talk at the annual meeting of the American Association for the Advancement of Science on February 21, Barton warned that far-reaching patents on laboratory processes useful in agricultural production could threaten the ability of developing countries, especially, to produce enough food for their people. "The problem is in the broad sweep of these patents and the concern that industry could, in essence, keep this technology to themselves," Barton said in an interview recently.

According to Barton, a small number of companies dominate the field of agbiotech and control the technology re-

sponsible for many of the important advancements in food production. Particularly in the U.S., patents on this technology are so broad they hamstring efforts to alleviate hunger, he says.

Essentially, genetically altered products allow food staples like rice to be

tion—could have devastating effects. "Depending on the country's willingness to ignore developed-world patent desires, they could not use the promoter," Barton said in the interview. "They would have to find a special alternative. In a sense, they would be reinventing the wheel."

Publicly funded research centers are trying to find new ways to reproduce the results of patented biotech processes, but with discouraging results. Recent mergers in the agbiotech industry have magnified the problem, Barton says. "Allowing a smaller and smaller number of companies to dominate an entire category of products is a bad idea."

Barton says his position on the issue falls between that of advocates for strict patent enforcement and those who believe patents

should never be applied to food products. Because of the cost associated with researching and developing genetically altered products, corporations need the financial incentive that patents provide, he says. "They can

really only justify their costs if they know they will capture a very, very large market share," said Barton, who estimates that private-sector research in this area totals "in the low billions." But because some of the patents are so broad, particularly those granted in the United States, they

Back in the Fray

Donohue studies racial profiling

ohn donohue, who stirred controversy last year with a report linking abortion to a nationwide drop in crime, has stepped into another highly charged debate. The town of Mount Prospect, III., has asked him to conduct a study to determine whether its police force engages in racial profiling. According to separate press reports, Donohue was hired following numerous complaints—and two recent discrimination lawsuits—alleging that Mount Prospect illegally targets Hispanics.

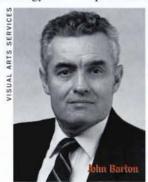
Donohue has studied this issue before. In May of last year he produced an empirical study that defended the record of the Illinois State Police against charges that it singled out Hispanic drivers.

Donohue, professor of law and John A. Wilson Faculty Scholar, told a *Chicago Tribune* reporter that he signed up for the Illinois State Police case out of simple curiosity, and had no particular axe to grind. "Data is my life," Donohue said. "I'm interested in figuring out the world."

Terry Ekl, the attorney in charge of Mount Prospect's internal investigation, said Donohue was selected because he was "the best guy in the country," according to the *Chicago Daily Herald*.

"I felt there was nothing in his background to indicate that he doesn't call them as he sees them," Ekl said.

"He's known for doing impartial, empirical analyses on problems where others would fear to tread or would engage in ideological posturing," said John Monahan, a law professor at the University of Virginia, in the *Tribune*. ■



"Allowing a smaller and smaller number of companies to dominate an entire category of products is a bad idea."

grown much faster and more cheaply than through conventional means. But what if these products were off limits? For example, Barton said, patent protection applied to such gene components as so-called "promoters"—"standard laboratory workhorses" in improving agricultural produc-

may effectively shut out the countries that can't afford the cost but need the food the most, he says.

"We need to find a balance between the intellectual property side, which wants an oligopoly, and the consumer side, which wants competitive prices." Barton says he would not eliminate the patent system, but plans to propose specific patent reforms in a forthcoming paper.

Equally dangerous, in Barton's view, is a growing movement—particularly in Europe—to ban genetically modified food. "That would be most unfortunate for the world," he said.

Wald: Initiative Banning Same-Sex Marriages Would Harm Children

STATEWIDE initiative on the March ballot to ban same-sex marriages in California would harm thousands of children if it were to pass, according to a report written by Michael Wald, the Jackson Eli Revnolds Professor of Law.

Same-Sex Couples: Marriage, Families, and Children, examines the likely consequences passage of Proposition 22 would have on children and families in California. The report was the first comprehensive analysis of the arguments for and against the so-called "Knight Initiative," and the first to consider the initiative's legal implications for California civil law. Prop. 22 expressly defines marriage as the union between a man and a woman, and would forbid the state from granting legal recognition to homosexual couples who might marry in another state

> and move to California.

Wald says the measure would be most harmful to children of same-sex couples. "These children would have their par-

ents' relationships rejected by the state," he said.

Drawing upon findings by the American Psychological Association and other long-term studies, Wald concludes that children raised by gay parents are as well off as children raised by heterosexual parents. Moreover, Wald says, same-sex marriages function no differently from opposite-sex

marriages in terms of commitment, stability, and parenting.

Wald, the former director of Human Services for the City and County of San Francisco and a former deputy general counsel of the U.S. Department of Health and Human Services, said allowing same-sex partners to marry would ascribe legal status and protections that would benefit children in their care. "Enabling their parents to marry would protect the children's economic interests by insuring their access to the resources of both adults," Wald said. "It would help guarantee stability of caretaking if

something should happen to their biological parent."

As current state law does not allow same-sex marriages, the Knight Initiative would only prevent California from rec-

> ognizing gay marriages that may someday be sanctioned in other states. But the Initiative could produce a number of legal and social precedents that would have harmful effects, the report shows. Specifically, Wald says, passage of Proposition 22 would threaten existing or future benefits for samesex families, and undermine California policy towards marriage and children.

"Voters should ask how clear and compelling are the justifications offered for treating same-sex couples differently from opposite-sex couples. Our society regards it as both morally and legally wrong to treat people unequally absent strong justification," the report concludes.

The study attracted significant media attention. Judy Mann, writing in the Washington Post, called Wald's study "the most vigorous and compassionate argument on behalf of gay marriages that I have ever read."

Wald's study is available online at http://www.lawschool.stanford.edu/ faculty/wald/



Four-term congressman Xavier Becerra '84 is among five candidates running for mayor of Los Angeles. Described by the Los Angeles Times as "articulate, dapper, and armed with a Stanford law degree," Becerra "brings instant credibility and credentials to the race." If elected, **Becerra** would become the first Latino mayor of modern Los Angeles.

"This is a city that could go one of two ways," Becerra told the Times. "It could become the city of the 21st century or many cities in the 21st century."

Grassroots.com Has Strong Law School Connections

FURTHER IMPRESSING A Stanford Law School imprint on recent start-up Grassroots.com, Dean Kathleen Sullivan has joined the board of advisors for the privately held, nonpartisan company that hopes to become the Internet's premier political action destination. Sullivan joins an advisory group that includes former vice presidential candidate Geraldine Ferraro, former New Hampshire

Governor John Sununu, onetime Clinton White House spokesperson Mike McCurry, and former Stanford provost Condoleezza Rice, who is now an advisor to presidential candidate George W. Bush.

Even before Sullivan's involvement, Grassroots.com, which went online February 15, had a strong Stanford Law School connection. Cofounders include Craig Johnson '74, interim CEO, and John Crandon '97,

vice president for strategic partnerships. Cheryl Mills '90, former White House deputy counsel and now a vice president at Oxygen Media, is also a member of the advisory board.

The company offers online resources for a wide range of civic initiatives, including tools for mobilizing advocacy efforts, promoting discussion of issues, and facilitating citizen involvement in the campaign process.

Wirtually INDISPENSABLE

How Stanford lawyers help sustain the dot-com phenomenon

ARLY ONE AFTERNOON IN 1994,
Craig Johnson '74, cofounder and chairman of Venture Law Group, sat down
to meet with fellow VLG attorney Jim
Brock and two recent Stanford graduates
who thought their favorite hobby might
have commercial potential. "What is the
hobby?" Johnson asked.

"We collect websites," one of the men replied. Johnson had never heard of such a thing, so he probed. Was this activity proprietary? "No, anybody can do it," he was told. How do you make money at it? "It's free."

When the conversation ended, Johnson wasn't sure whether the pair had a viable business or merely an interesting pastime. "Their business plan was incomplete, the product was nonproprietary, and there was no revenue in sight," he recalled. "But they were smart, and they had a good name—Yahoo!"

Days later, with Johnson's counsel and with Brock running interference, the two Stanford grads had convinced venture capitalists that their idea was worth an initial investment. Hobbyists Jerry Yang (BA/MS '90) and David Filo (MS '90), cofounders of the world's most popular Web portal, were on their way to epic success.

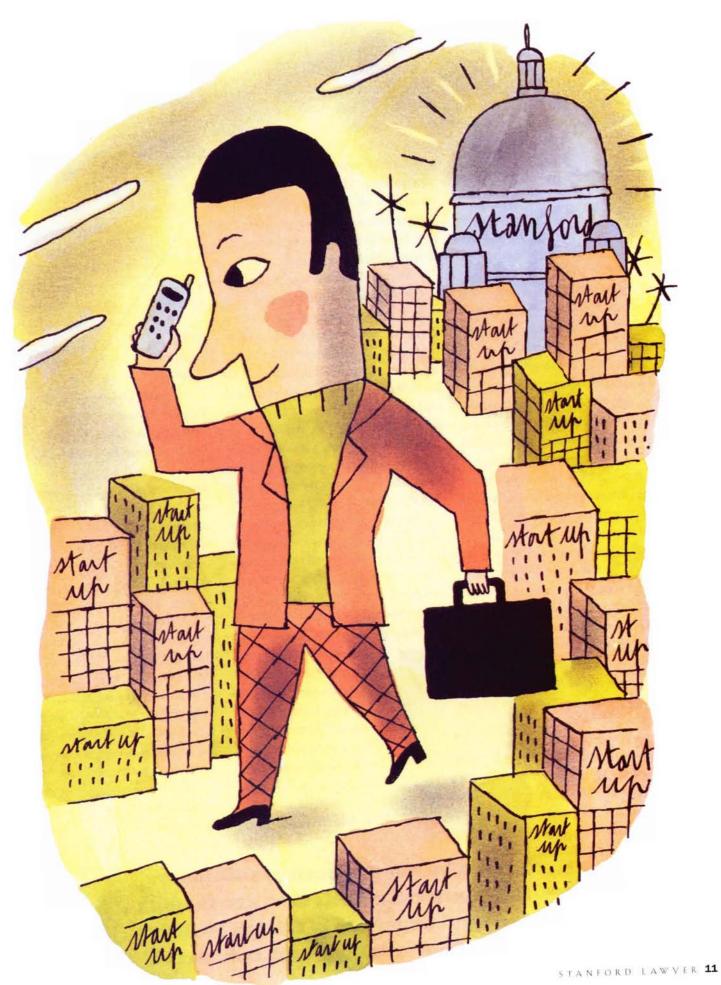
As it turns out, there aren't that many Yahoo!s in the world, but Johnson's story is illustrative of a fundamental truth in Silicon Valley—a great idea and the right lawyer can be a billion-dollar combination. And for the past quarter century, the right lawyer very probably was a Stanford Law School graduate.

Stanford Law alumni are among the most successful, influential, and sought-after lawyers in the Valley. They have shepherded hundreds of start-ups, including some of the technology industry's top companies; they've handled mergers, acquisitions, and strategic alliances between high-tech heavyweights; and they've helped build the infrastructure that supports the continuing surge of economic activity in Silicon Valley.

Nowhere is the Law School's symbiotic relationship with the high-technology establishment more pronounced than in the leading law firms of the Bay Area. Hundreds of Stanford-educated lawyers live and work in the verdant hills of the Peninsula, and a significant percentage of them, directly or indirectly, are involved in high-tech law. "If you were developing a Who's Who list of the Silicon Valley legal community, 70 to 80 percent would be Stanford people," said James Gaither '64, a senior partner at Cooley Godward in Palo Alto. "In fact, I can only think of a handful of people who could be legitimately placed on that list who did not go to Stanford."

"If you look at Stanford's footprint in terms of high-tech lawyering and the evolution of venture capital and the Internet, it's fairly remarkable, particularly

BY KEVIN COOL ILLUSTRATIONS BY CYRIL CABRY



when you adjust for the small size of the school," said Joseph Grundfest '78, W. A. Franke Professor of Law and Business.

Collectively, this group of Law School graduates represents a formidable corpus of experience and know-how cherished by entrepreneurs. Silicon Valley experts agree that high-tech lawyers from Stanford are central to the venture capital apparatus upon which the Internet juggernaut depends. "They are coaches and mentors," said Grundfest. "Even successful, experienced entrepreneurs have only been through the start-up process once or twice-their lawyers may have been through it hundreds of times."

The best high-tech lawyers go far beyond dispensing legal counsel; they provide business advice on everything from equity financing to product distribution. They know where entrepreneurs can find accountants, management executives, and most importantly, venture capitalists. "Many of these companies have little or no business experience," said Tom DeFilipps '81, a partner at Wilson Sonsini Goodrich & Rosati. "Basically, when they come to see me, the 'company' is a couple of guys working in a garage or an apartment. What they are buying from us, in addition to good legal representation, is our network, our connections."

Brad Jones '80, a partner at venture capital firm Redpoint Ventures, says his company highly values its relationships with lawyers in the start-up sector. "They bring us some of our best ideas," he said.

The notion of a lawyer being primarily a business counselor is not novel to Silicon Valley-it has been true throughout American industrial history. What differentiates Silicon Valley from other large-scale, localized business sectors, say in Hollywood or Wall Street, is the percentage of lawyers who play this role. "Most lawyers in big companies and big firms have very narrow jobs-they're supposed to be an expert on this particular area or that particular area. Here, where so many companies are new, there is a need for lawyers with a broad base of skills. The lines between lawyer and business adviser start to blur," Johnson said.

The concentration of legal expertise in the start-up market has produced exponential growth for a handful of Silicon Valley law firms, and the volume continues to grow, says Gaither. "We're maxed out. I have seven new business plans on my desk right now, and I have to call and say I can't take them even though I know they will be winners," he said.

One would be hard put to find a hightech lawyer who isn't turning down clients almost daily. "I cannot possibly keep up with the demand," said DeFilipps.

Helping start-up companies has become a specialty in part because high-tech lawyers have had so much practice doing it. Drawn by experienced practitioners, international clients now are tapping the legal expertise in Silicon Valley to build their own high-tech industries. John Roos '80,

> a partner at Wilson Sonsini, heads a practice group that has played a major role in the burgeoning high-tech sector in Israel. "They have very smart lawyers, but they don't have the experience or the relationships that we have here," Roos said. "We're teaching them how to play in the big leagues."



Drawn by experienced practitioners, international clients now are tapping the legal expertise in Silicon Valley to build their own high-tech industries.

IN THE BEGINNING

The high-tech revolution may seem like a recent event-some of the nation's largest and most successful companies are 10 years old or less-but Stanford-educated lawyers were helping start-ups when the Valley was known more for plum orchards than PCs.

When he joined Cooley Godward's San Francisco office in 1964, Gaither says, Palo Alto was a legal backwater. "There was very little business here," he said. Then, after a pause, "And no good restaurants."

"The firms that recognized where technology was going and positioned themselves at that time are the leaders now," Gaither said.

Gordon Davidson '74, chairman of Fenwick & West in Palo Alto, already was lobbying for a branch office on the Peninsula when he worked as a 2L summer associate at a leading San Francisco firm. He approached the managing partner about his idea, but was rebuffed. "He sat there with his feet on the desk and said to me, 'If there are any important companies down there they will drive to the City to see their lawyers.' Obviously, he didn't get it," Davidson said.

Today, the commute is in the opposite direction. Palo Alto, Menlo Park and their environs form the apex of legal action. Not only have the largest San Francisco firms opened offices in Silicon Valley, but the '90s also saw law firms migrate from New York, Boston, Chicago, and other cities to Palo Alto, hoping to ride the crest of the Internet wave.

"Early adopters" like Davidson seem prescient in retrospect because there was little evidence 25 years ago that the intersection of high technology and law

would change the profession in fundamental ways. Or, for that matter, that it would be profitable.

Gaither began

The Story of a Start-up

Launching a company? Get a good lawyer

ALK INTO THE headquarters of UBUBU. Inc., and the first thing you're likely to see is a group of young employees, shoes off, seated on pillows on the floor. They aren't playing Twister; they're discussing business strategy. A mountain bike is leaning against the wall behind them and discarded Play-Doh containers litter the floor. On the other side of the room, near a sign that says "Reception," is a medium-sized, laminate table and one folding chair. Guests are invited to wait there, and to avail themselves of the nearby Ally McBeal unisex bathroom ("now with music!"), where dawdlers can read Dr. Seuss's Green Eggs and Ham.

Located on the top floor of a warehouse between Folsom and Harrison streets in San Francisco's South of Market neighborhood, UBUBU (Internet shorthand for You Be You Be You) has the funky, disheveled look of a typical startup company. It hopes to translate the playfulness of its physical surroundings to the Internet—"to make the Web experience more fun," according to a company press release. Exactly how it will do that is a secret-UBUBU is in "stealth mode," preparing to roll out its product this spring. Founder and president Brian Backus, who produced multimedia titles like

The Hercules Animated

Story Book while work-

ing at Disney Interactive,

predicts that his company

and visual."

will make using the Web

"highly intuitive, personalized,

Backus, 35, emerges from be-

hind a cluster of cubicles, pauses, and drags over a box containing an unassembled desk chair. "See, we have chairs," he says with mock boastfulness, and sits astride the box. His company, only a few months old, is expanding so quickly that the chair inventory is perpetually lagging. But who cares about office furnishings—the investors who ponied up \$2 million to support its development figure UBUBU will be sitting pretty soon enough.

The seeds for UBUBU were sown four years ago when Backus and his brother, Ben, then a PhD student at UC-Berkeley and now a cognitive vision scientist at Stanford, imagined a way to fundamentally improve the Internet experience. Backus was still a second-year student at Harvard Business School when, at the urging of a friend, he sent his business plan to Tom DeFilipps '81, a partner at Wilson Sonsini Goodrich & Rosati in Palo Alto. "He was interested enough to take us on as a client, and he said we wouldn't be billed

until later, when we could afford it. It's an awesome, awesome system."

Backus says he wasn't even sure at the outset why he needed a law firm. "Boy, did I have a lot to learn. They were my partners, and there is no other group that was more critical to building the early company."

"Partner" is how clients often characterize DeFilipps, who serves as a kind of midwife for entrepreneurs who are pregnant with ideas but lack birthing experience. His job is to be both an empowering agent and a reality check. For example, Backus says, DeFilipps helped UBUBU navigate the venture capital process, protecting the company from unfair terms and ensuring that Backus got the best deal possible. "I would have had no idea how to manage the investors on my own," he said. "Yes, the documentation and paperwork were important, but I actually valued more the strategic support they were able to provide. And that isn't something that I would expect to be able to get from a typical law firm."

Backus also appreciated the personal attention DeFilipps and his associate, Ted Hollifield, offered. "Even though we're this scrappy little company in a warehouse with boxes for chairs, they made us feel important."

Young companies like
UBUBU are important to
DeFilipps. They represent
the core of his practice. And
although his client base still
includes well-established
companies, it's the UBUBUs of
the world that make his job special, he says. "You've participated in
building something. How could you not
find that satisfying?"

his high-tech practice in the late 1960s when a cadre of biotechnology and computer-related companies were formed, often backed by venture capitalists. The emergence of red-hot semiconductor companies, led by Intel, fueled a flurry of speculative financing in the early 1970s, but the venture capital market still played a tiny role in the U.S. economy. In 1972, only about \$10 million was invested by venture capital firms worldwide.

Things perked up noticeably in 1976. That's the year that two of Cooley Godward's clients, venture capitalist Robert A. Swanson and biochemist Herbert W. Boyer, formed Genentech, which specialized in the then barely known scientific field of recombinant DNA. One year later, Fenwick & West's Davidson helped two sneaker-wearing kids named Steve Jobs and Steve Wozniak launch Apple Computer, whose stunning initial public offering in 1980 "put Silicon Valley on the map." Law School grads have been involved in some of the most important deals since-a roster of start-ups that in-

cludes Oracle, Netscape, Cisco Systems, and of course, Yahoo!

In a very real sense, Stanford lawyers helped establish Silicon Valley as the world's preeminent high-tech setting. That designation might have gone to the technology cluster near Boston known as Route 128, named for the highway that runs through it. Route 128 had the essential ingredients-a solid core of high-tech companies, a deep reservoir of capital, and access to cutting-edge technology and talent at nearby universities like Harvard and

MIT. What did Palo Alto have that Route 128 did not? Risk tolerance, says Davidson, a Boston native. Lawyers in Silicon Valley were quick to pick up on the changing dynamics of high-tech business, including a culture that defied orthodoxy, he says. They translated their clients' outside-the-box thinking to their own practices, eschewing caution for higher-stakes risk, and finding creative answers to never-before-asked legal questions. One example of this, Davidson says, was the invention of equity incentives for employees at new companies, the linchpin of corporate organization in the Valley and perhaps the single most influential piece of the region's self-perpetuating start-up cycle. That concept that you would sell stock to employees more cheaply than to investors-flew in the face of old-school assumptions that equity was reserved for corporate financiers and upper management. "Here, everybody gets rich together. It's just a different mindset," Davidson said.

Joe Grundfest points out that Silicon

Valley had the advantage of "building on fresh ground." In the East, where financial and legal institutions are hundreds of years old, changing the culture was more difficult. "We were a clean slate," Grundfest said. "We didn't have to overcome tradition."

Alan Austin '74, managing partner at Wilson Sonsini Goodrich & Rosati, says Silicon Valley lawyers have embraced, and contributed to, the Valley's egalitarian spirit that removes barriers of class and social standing. "Nobody cares who your parents are or where you go to church or what club you're in," said Austin, who left a lucrative and satisfying securities law practice in San Francisco in 1987 to join Wilson Sonsini. "This is capitalism in the raw."

THE NEED FOR SPEED

So how does this place, where yesterday's garage-dwelling, clad-in-khakis entrepreneur is tomorrow's tycoon, inform the practice of law? First rule: Go fast.

Electronic commerce has pumped adrenaline into an already over-caffeinated industry. Establishing a strong brand in a market niche previously unoccupied or underoccupied is the fundamental goal of each new Internet concern, and getting there is an all-out sprint. "People want to do things now," Austin said. "You don't have the luxury of doing a lot of research, so you'd better know the answers."

The velocity of business creation is unprecedented, says Grundfest. And so are the demands on lawyers.

Silicon Valley is an intensive dealmaking environment. Corporate hightech lawyers not only must carefully structure fledgling companies, but also must be mindful of future partnerships or acquisitions that will strengthen their client's market position. Fifteen years ago, says Wilson & Sonsini's DeFilipps, a computer company-probably in manufacturing semiconductors or software-moved relatively slowly, issuing beta versions that eventually would become full-scale commercial products, and maintaining a lowprofile throughout. Now this world is

> moving "at Internet speed."

"Once you get these companies organized and financed, they're out



Lawyers in Silicon Valley were quick to pick up on the changing dynamics of high-tech business, including a culture that defied orthodoxy.

The Big Three

Place, Jacobson, Neukom sit at apex of corporate law

MONG THE ARRAY of Stanford Law School graduates playing key roles in the high-technology sector are general counsels at three leading companies.

William Neukom '67 is senior vice president for law and corporate affairs at Microsoft Corp. Tapped by Bill Gates's father, William Gates II, to advise his son's fledgling business in 1979, Neukom has helped guide the software and multimedia giant through every stage of its prodigious development. Cited repeatedly by the legal press as one of the nation's most influential lawyers, Neukom has played a central role in Microsoft's defense against antitrust claims.

Michael Jacobson '80 is general counsel at eBay, Inc., the Internet's top auction site. Jacobson's position places him on the front line of legal battles surrounding online auctions, which have mushroomed into a major industry. Auction fraud and the sale of illegal items-an attempt to auction a human liver is a recent example-are among the prickly problems Jacobson confronts.

John Place '85 is general counsel at Yahoo!, Inc., the world's most popular Internet portal. The first in-house attorney hired by Yahoo!, Place is responsible for the company's public policy and government relations efforts worldwide in addition to managing a legal department with more than 30 attorneys. He is an influential commentator in the ongoing debate about legal and public policy issues raised by Internet commerce.

there doing deals," he said. "They need partners, and they need partners right away. The day after they get their seed money, they're telling you they have three deals they need to put together. That puts much more pressure on us. We have a lot more work to do up front."

Wilson Sonsini partner Suzanne Bell

'88 shepherded the establishment of Disney's Go.com Internet portal and was instrumental in last year's Netscape/ AOL alliance. She says lawyers must get deals done quickly and efficiently or risk putting their clients at a competitive disadvantage. "Market opportunities can be lost if you don't jump on them," she said.

Combine the need for speed with complexity and you have a job that demands highly skilled, intellectually agile lawyers. "There was no book to go to" when Bell and her colleagues were working on the AOL deal, she said. So where did they get language for linking agreements that governed how companies would be compensated when customers clicked on various Web pages? "We had to make it up."

Because they so often confront dilemmas to which current legal thought doesn't apply, high-tech lawyers must be inventive, says Davidson. "Clients want to know how to get on the other side of the wall. You have to be a problem solver."

John Place '85, general counsel at Yahoo!, concurs. In an interview with California Lawyer, Place commented on the pragmatic approach hightech clients seek. "There's an

old saying, 'to a hammer, every problem is a nail.' So we really value lawyers who are a whole toolkit and who really look at our particular legal issue and our legal problem as part of a much, much larger business context," Place said. "I think that that is part and parcel of a Silicon Valley lawyer's upbringing."

Place, whose own creativity and savvy have been praised in numerous business and legal publications, says that high-technology clients want advice quickly and with a minimum of hand wringing. "We will pay . . . to get the 80 percent right answer, and will take a risk on the 20 percent," he said.

Craig Dauchy '74, a partner at Cooley Godward, sees this dynamic all the time. "Our clients can't wait around three days while we're studying their question. These companies are moving way too fast for that. They need the answer now."

That willingness to take chances and risk mistakes often results in lawyers and their clients beating competitors to the finish line. It also ratchets up the pressure. "It's tiring; it takes a toll," Austin said. "And the pace just keeps increasing."

Adding to the stress is the volatility of the tech sector on Wall Street, which leads to decisionmaking on a quarter-to-quarter basis, says Paul Goldstein, Stella W. and Ira S. Lillick Professor of Law. "Lawyers are asked to be firefighters, but the fires burn faster and more intensely all the time, and there's less time for fire prevention. That presents a real challenge."

Moreover, the targets are always moving. "You have to take into account not only what may affect the deal today, but what may affect it down the road," said Bell. "A high-tech lawyer always has to be asking, 'What if?' It's the kind of thing that keeps you up at night."

Davidson worries that the pace imposed by this frenetic environment may soon threaten the integrity of the work, if it hasn't already. "I worry that we're going too fast," he said. "At some point, you begin to wonder whether the work is suffering."

Goldstein detects a troubling pattern of ever-escalating demands placed on lawyers in ever-shrinking time horizons. "I see diminished opportunities for reflection. This rushing headlong into the next

Welcome to Planet Khaki

Dressing down is on the rise

sons lawyers enjoy working with high-tech companies: no ties. The informality spawned by sneaker-wearing entrepreneurs traipsing through Silicon Valley law firms has had a real and widespread effect on dress codes. Italian suits are out, chinos are in.

"There's an old saying that you should never dress worse than your client," said Mark Ostrau '85 of Fenwick & West in Palo Alto. "Around here, you can meet that requirement just by wearing shoes."

Privately, some lawyers hint that the pendulum may have swung too far toward Levi's and loafers when it comes to office attire, but nobody seems to be complaining out loud. "It contributes to a kind of egalitarian spirit that I find very refreshing," said Mark Medearis '79 of Venture Law Group. And most agree that although suits and ties lend an air of decorum to business dealings, they also contribute to a stiff formality that can be offputting to young entrepreneurs. "You want the client to feel comfortable in your surroundings," Medearis said.

The trend toward dressing down is no longer just a Silicon Valley trend. Professor Paul Goldstein, of counsel at Morrison & Foerster since 1989, has watched as dress codes weakened and finally disappeared. "It showed up in San Francisco and Palo Alto offices with casual

Fridays, and I knew it wouldn't be long before it was extended to other days of the week," Goldstein said. new thing is a real source of concern," he said. "I worry that some of our recent graduates, at age 40 or 45, will be asking themselves, 'What have I accomplished that was worthy of spending time on?"

THIS CHANGES EVERYTHING

High-tech lawyers have been responsible for innovations in securities law and intellectual property law, and they have helped change the business of lawyering. Stanford lawyers were among the first to accept stock as payment from the companies they represented, and in many cases included themselves among the early portfolio of investors. The compensation model has clearly changed, and based on the experiences of veterans like Davidson, it's easy to understand why. Davidson recalls with some angst his involvement more than 20 years ago with clients Jobs and Wozniak, founders of Apple Computer. "They wanted to pay us with stock, but we told them our fee was five hundred dollars and we wanted the cash. That stock would have been worth about 10 million dollars," Davidson said.

> The client-attorney relationship is different in

the high-tech arena, too. Dauchy points out that "there is no corporate gatekeeper" between lawyers and their clients.

Associates as well as partners work directly with company founders, which contributes to the Valley's ap-

peal to young lawyers. "You're not the twelth person on the Chase Manhattan team, where you might get to see a client after seven years," Dauchy said. "Here, you are working with the president and CFO of these companies from the beginning."

And because they are in such demand, lawyers working in the start-up sector must aggressively screen the hundreds of entreaties from entrepreneurs, usually considering only those who come with credible referrals. Even then, their first meeting with a prospective client may be somewhat speculative. After accepting a client, firms routinely defer billing to allow the idea-rich, cash-poor new companies to continue building without worrying about lawyers' fees.

For the entrepreneur, access to these lawyers is gold—the credibility they wield with venture capitalists can be the difference between a foundering dream and millions in seed money. For the lawyers, this phase is analogous to a talent search. "You're looking for people who are very smart and have an innovative idea, even if their business plan may not be fully formed," said DeFilipps.

In addition to encouraging risk-taking ventures, this trolling about for great partnerships allows for serendipity to occur in brilliant ways. When Grundfest and Stanford's Nobel-winning economist William Sharpe approached Johnson with an idea about an online financial services company, they had wine but no vessel. Out of those discussions was born Financial Engines.com (see related story, page 18) "Very early in the process, the lawyer is mostly a counselor, a consigliere," Johnson said.

Johnson's career is full of back-ofa-napkin stories about companies birthed in cafes, over coffee, on the fly. Garage.com is the best example. In August 1997 former Apple software evangelist Guy Kawasaki (AB '76) and Forbes publisher Rich Karlgaard (AB

Get a Life.com

Avoiding the danger of traveling at Internet speed

badgers every Silicon Valley
lawyer who specializes in helping start-up companies: How
much work is too much work?

Internet entrepreneurs, especially, are in a frenzy to get their product to market first and establish brand dominance because it can mean the difference of hundreds of millions of dollars. "We've had clients ask us to literally live with them [during the start-up phase]," said Craig Johnson '74, chairman of Venture Law Group. "They tell us they aren't going to sleep for the next six months."

That sense of absolute urgency introduces a dilemma for lawyers who, unlike many of their clients, require time for spouses, children and the occasional respite. It's a constant source of tension, concedes Gordon Davidson '74, chairman of Fenwick & West. "We are in a service business and the instincts of lawyers are to please their clients. They get their rewards from pleasing others," he said. "But you've got to go home."

Davidson says lifestyle decisions come into play—he says he is fortunate to have "a zero commute"—to minimize the unproductive time spent away from home. "I coached my kids' soccer teams for 20 years, and I think I was able to give my clients the service

they needed," he said. But as clients' demands continue to grow and the intensity of the work increases, he says, "finding that balance gets harder all the time."

The incentive to overwork is exacerbated by a strict reliance on billable hours as a benchmark for performance, according to Johnson. "It produces almost pathological behavior in some cases," he said. Some firms now complement the traditional method of compensation by offering lawyers equity positions in their

clients' businesses. But regardless of the incentive structure, high-tech lawyers' workloads often are self-imposed. "I think we all work too hard, but the work we're doing is so endlessly fascinating that, frankly, it's hard to stop," said Mark Ostrau '85, a partner at Fenwick & West in Palo Alto.

The lure of the work is so strong that he needs his family to regulate him, says Ostrau. "External forces impose balance," he said.

Maintaining a balanced life also requires turning away a lot of business.

Johnson estimates that his firm accepts only "three to five per-

cent" of prospective clients, despite knowing that many of those they reject will become hugely successful. "There are so many great companies being developed every day that the temptation is to keep going harder and faster. It can become an addictive lifestyle," he said. "It's like a banquet where all of the food is very, very good. It's easy to overeat."

Johnson, who took three weeks off last June to bicycle through France, also put in place a vacation bonus to encourage VLG lawyers to get away from the mania of Silicon Valley. "We have to find ways to counterbalance the pressure so that people maintain a focus on quality of fe." he said.



HIGH-TECH LAWYERS

'76) sought out Johnson to get his take on an idea about an information and entertainment website devoted to techno-hip cities around the world. Johnson was-

n't excited about yet another advertisingbased Internet business but was eager to work with Kawasaki and Karlgaard, so he brainstormed with them about other ideas. Johnson, who had been working on a speech about changes in angel investing in Silicon Valley, suggested an idea for an online service that would match investors with entrepreneurs—an early stage incu-

"Obviously, you can make a gazillion dollars starting these new companies, but you also can make the world a little better." CRAIG JOHNSON '74

bator for new companies. Kawasaki and Karlgaard loved it. Before the meeting ended Garage.com already was a forming embryo. It was a classic demonstration of Johnson's Jedi mastery, and another example of how quickly Valley collaborations can become tangible successes. Garage.com, already profitable in 1999, will offer stock to the public later this year.

Obviously, not every client turns out to be a big winner from a strictly financial standpoint, but even some of the less lucrative partnerships are worthwhile, says Davidson. As an example, he points to his client Genelabs, a company founded in the 1980s by a collection of Stanford and Ivy League scientists who believed they had found a cure for the HIV virus that causes AIDS. Developed from a cucumber root found in China, the medicine looked very promising but eventually was found to be too toxic. "I would make that investment again. You want to see these life sciences companies succeed," Davidson said.

Indeed, the fact that many innovative companies are launched with an abiding interest in serving the public is an underreported and seldom acknowledged aspect of start-up culture in the Valley. "Obviously, you can make a gazillion dollars starting these new companies, but you also can make the world a little better," Johnson said.

John Crandon '97 can attest to that. A Rhodes Scholar who worked for a Boston consulting firm after graduating from the Law School, Crandon decided last year to return to the Bay Area. Former Law School Dean Paul Brest hooked him up with Johnson, who immediately included Crandon in exploratory discussions about a new company. Johnson, his VLG partner Tae Hea Nahm, and former U.S. Senate candidate Matt Fong envisioned a Web-based business that would bring greater efficiency to political advocacy, organization, and marketing. They hoped to reduce impediments to citizen involvement by offering centralized community-building and organizational resources so that persons could easily mobilize others to, for example, petition their

Founders, Keepers

Faculty member joins the e-commerce revolution

TANFORD HAS served as the incubator for dozens of start-up companies, but most of those have sprung from young alumni eager to capitalize on the Internet's comeone, come-all promise. Now faculty members, too, are adding "company founder" to their résumés.

Financial Engines.com, which provides portfolio management and advice for individual investors' retirement accounts, is a recent example. The brainchild of Stanford Law Professor Joseph Grundfest '78, a former SEC commissioner, and Stanford economist William Sharpe, winner of the Nobel Prize, the company applies sophisticated investment forecasting to an easy-to-use interactive system. Users submit information about their portfolios, goals for retirement income, and projected contributions over the remainder of their careers. Within seconds, the company's modeling software produces a forecast that predicts the likelihood of reaching those goals. For a fee, Financial Engines will provide ongoing counseling and strategies for retirement investing, and even conduct the necessary transactions if investors wish.

Venture Law Group cofounder and chairman Craig Johnson '74, who helped Grundfest and Sharpe start the company, believes Financial Engines represents a fundamental change in how investment services are delivered. "This company is going to be huge," he said.

Grundfest shrugs off questions about whether he will leave the academy to become a full-time businessman. Indeed, he sees his participation in Financial Engines as an important complement to his teaching. "This experience can only help in terms of what I can offer to my students," he said.

Despite their credentials, Grundfest and Sharpe are as surprised as anyone at the swiftness of e-commerce success. "Bill Sharpe and I are amazed that what started over a cup of coffee three years ago is now supporting more than 100 families," Grundfest said.

Feeding the Monster

Venture capital keeps pouring in, and the returns are downright scary

OR VENTURE CAPITALISTS, the economic boom fueled by the proliferation of Internet companies has been nothing short of stratospheric. Investments of a few million dollars have in some cases returned 100 times that much or more as infant companies "mature"-admittedly, a relative term in Silicon Valley. The numbers are so enormous they beg incredulity.

Take, for example, the case of AdForce, an online advertising service that received \$3 million in early stage funding in 1997 from Atrium Capital, where Russell Pyne '80 is managing director. That money bought Atrium's investors a 12 percent stake and a board seat, and allowed Pyne and his partners to play a central role in AdForce's development. In January of this year, AdForce was acquired by direct marketing giant CMGI for \$1.4 billion. Do the math. Atrium made a lot of money.

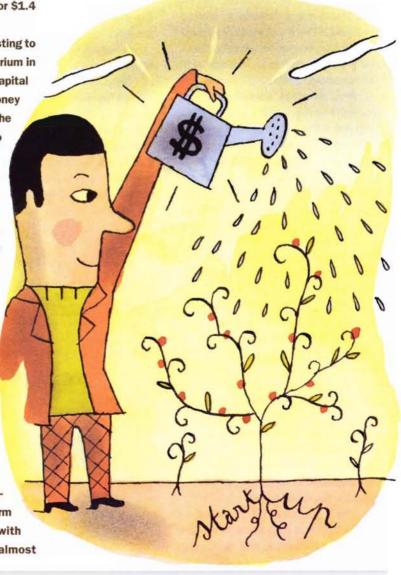
"The ubiquity of the Internet has taken venture investing to another order of magnitude," said Pyne, who founded Atrium in 1991 after nine years at the Sprout Group, the venture capital affiliate of Donaldson, Lufkin & Jenrette. "There is money chasing almost every idea that has something to do with the Internet. In this market, you'd have to be really dumb to pick only losers."

Ironically, says Brad Jones '80 of Redpoint Ventures, market forces driving new business creation make large yields more common, but deciding what companies will ultimately be successful is more difficult. "The criteria we've always used in evaluating a new company don't necessarily apply in the current environment," he said. Those criteria, he says, include a robust, durable demand for the product; innovative technology; skilled management; and a good fit in the marketplace. "I see a whole lot of companies out there that are worth a lot of money that don't really meet those criteria. The question is, is that temporary, or are there new business opportunities on the Internet that don't need all those criteria to be valuable?"

Runaway Wall Street valuations of Internet-related companies have produced a climate of huge expectations, says Jones, who helped five partners launch Redpoint in 1999 after 18 years at Brentwood Venture Capital. That is hardly surprising, considering success stories like Sandpiper Network, a company in which Jones's firm invested \$5.5 million. Sandpiper eventually merged with Digital Island, whose stock went from \$23 to \$70 almost overnight, and is now at about \$90. Sandpiper shareholders earned roughly \$2.25 billion in the deal. "We try to tell our investors not to expect those kinds of returns, but it's inevitable that they do." Jones said.

"Historically, venture capitalists were happy if they got a fivetimes return on their investment," said Pvne, "If they got a tentimes return, they were thrilled." These days, returns like that are analogous to finding a few coins in the couch.

A dose of perspective might be in order. "These kinds of returns are not sustainable," said Jones. "If it continued for very much longer it would subsume the whole economy, and that can't happen."



The Stanford Effect

Culture, connections promote success

School produce so many successful high-tech lawyers? Current and former students offer several reasons.

Certainly, any analysis of the Law School's huge impact on high-tech law must begin with Stanford's location. Christopher Byrd '00 recalls that when he was considering where to attend law school, Professor Henry Greely convinced him that Stanford's position at the epicenter of Silicon Valley would provide incredible opportunities for cultivating his intersecting interests in technology, law, and business. "Having been here I realize there is an effect," Byrd said. "There are great opportunities for people who are studying law and are interested in technology to find similar-minded people."

Byrd also took advantage of the proximity of the world's leading hightech law firms to immerse himself in the start-up sector. During summer internships at Wilson Sonsini Goodrich & Rosati and Venture Law Group, he learned about the convergence of legal and business issues for start-up clients, and the agility required to deal with it. "You see the patterns start to emerge after you've watched or helped organize and fund four or five companies," he said.

But what beyond zip code explains the prominence of Law School graduates in Silicon Valley? Three things, says John Crandon '97.

"First, it's the people, the relationships. The Stanford connections—and this extends to the engineering and business schools are incredible. That network is extremely valuable," said Crandon, vice president of strategic partnerships for Grassroots.com.

"Second, there is a thread of technology that runs through the Law School; an interest in how technology is applied and its effects on the law.

Third is the school's entrepreneurial tradition, its tradition of innovation.

Faculty as well as students have that entrepreneurial mindset."

Crandon says these characteristics coalesce into an ethos that produces graduates with both the attitude and aptitude for success in high-tech law. "It's infectious," he said.

Byrd, who already holds a PhD in biology, acknowledges that the Stanford effect is particularly pronounced when considering the broad opportunities available university-wide. He has combined his Law School education with crossover courses at the Graduate School of Business and participated in a GSB start-up venture to produce a kind of academic one-two punch.

Byrd has accepted a position with Wilson Sonsini, but leaves open the possibility of working full-time for a start-up after graduation. "I'll be in a start-up at some point, and the question is whether I will do that immediately or after having practiced in the area of corporate law," he said.

Sounds familiar. —Heather Murphy

local school board. That vision dovetailed perfectly with Crandon's interest in public policy, and within weeks Crandon had become the first employee of Grassroots.com. By February, having secured millions in funding, Grassroots.com had hired two dozen employees, pulled together a powerhouse board of directors, and formed an exclusive partnership with the League of Women Voters. The company rolled out on February 15 in Washington as presidential primaries were in full swing.

A LAND OF PLENTY

Did we mention that this work is fun?

Pressures and deadlines nothwithstanding, high-tech lawyers love the work and feel fortunate to be doing it. "I honestly can't imagine a job that would be more interesting than this," said Venture Law Group's Mark Medearis '79, who admits he nearly left the profession 20 years ago.

After a brief stint as a litigator, he says, "I was almost suicidal. If I hadn't found this niche, I probably would not be a lawyer right now."

Austin, Davidson, and others say the young, energetic, and highly committed

entrepreneurs with whom they work keep their practice invigorating. "The clients are the best part," Austin said. "They are doing such exciting things that you can't help but be excited along with them."

Medearis points out that he likes being a lawyer in part because his work involves so much more than the law. "I get to be involved in every aspect of these businesses," he said. "My favorite clients are those who don't really know what they're doing, because that means I can help shape that company."

"I feel so lucky to have been here at



the right time to be able to participate in this," said Wilson Sonsini's John Roos. "I think most Silicon Valley lawyers recognize that they have been blessed."

And while high-tech lawyers first point to the enjoyment and satisfaction their work provides, they readily admit that the financial rewards are extraordinary as well. High-tech lawyers are getting so rich that some wonder whether talented people may leave the profession prematurely. "We have serious discussions at our law firm about a day in the not-toodistant future when our lawyers are so wealthy they will no longer be motivated to work," Johnson said. And in almost the same breath, he added, "If they were only working for the money, some of them might already be gone."

The excitement and opportunities available to high-tech lawyers have a downside, too. Firms cannot hold on to good lawyers. "Retention of mid-level and senior associates is a major challenge," said Cathryn Chinn '83, who gave up her law practice to manage VLG full time. "We have lawyers leaving to join in-house teams, or to join a start-up just prior to a public offering. It's hard for us to compete with that."

Davidson, who has been wooed by clients many times over the years, understands the pull such opportunities have on young lawyers. He was invited more than 15 years ago by the founder of Electronic Arts, Inc.—a company that created some of the most popular video games in history-to join him as a full partner and shareholder. Davidson said no. "A 120-million dollar mistake," he said, grinning ruefully. "I want to work with lots of different companies. For me,

Can This Be Taught?

The curriculum question

TUDENTS WHO come to Stanford Law School often are interested in working in Silicon Valley. What should they be learning?

Paul Goldstein, who has taught at the Law School since 1975 and regularly advises several Silicon Valley companies on intellectual property issues, says he is "skeptical" about the exclusive wisdom of traditional legal education for future high-tech lawyers. Developing analytical skills-the bedrock goal of leading law schools for generations-is necessary, but it's not sufficient. In addition, Goldstein says, "systematic exposure" to the rigorous high-tech legal environment is essential. "It's essentially a case method approach—giving students role models who can describe, and reflect thoughtfully on, how they solved a problem. 'This is what I did and this is why I did it,' either on a big piece of litigation or a business deal."

Courses that attempt to simulate real-world situations, which have flourished at the Law School in recent years. "definitely are what we should be thinking about for parts of the curriculum," Goldstein said.

Craig Dauchy '74, a partner at Cooley Godward, says the Law School's offerings in business-related courses are important as well. "We have extensive training programs for our new associates because they will deal directly with the clients and get intimately involved in their businesses. Having a strong business background is very helpful," he said.

The Law School is doing a good job, based on his firm's experience with recent graduates, says Dauchy. "It is our number one school [for recruiting] every year," he said. "There is no better launching pad into Valley law firms than Stanford Law School."

that's what's fun about this work."

How long will the fun last? Nobody is willing to venture a guess as to when this technology-driven boom will finally abate, and where the law will be when it does. "Who could have predicted three years ago where we would be now?" Grundfest asked.

Increasingly, interest in high-tech lawyers is coming from traditional companies who want to establish themselves on the Web. And there are signs that the Internet sector is entering a second phase,

one in which emphasis moves from wealth creation to wealth preservation. Lawyers will be asked to do estate planning, tax law, and litigation for clients that until now have been focused almost exclusively on licensing and transactions. Recognizing this evolution, New Yorkbased Simpson Thacher & Bartlett recently opened an office in Palo Alto. "Many Silicon Valley companies have matured and are starting to confront the type of legal issues that mature companies must deal with," said Charles Koob '69, a partner at Simpson Thacher. "We think we can add unique value."

And as law firms adapt to the explosive growth of high technology, so must the Law School, says James Gaither. "We have only scratched the surface."

"We have lawyers leaving to join in-house teams, or to join a start-up just prior to a public offering. It's hard for us to compete with that." CATHRYN CHINN '83

Taking It to the Streets

Larry Irving wants to ensure that the information superhighway doesn't end in the suburbs

OR SOMEONE WHO WANTS to get everyone connected, Larry Irving '79 can be a hard man

When he's not halfway around the globe consulting for high-tech companies in places like Romania or Bulgaria, he's likely to be criss-crossing the U.S., recruiting talent for his own Internet start-up. It's all part of a decision he made last year to become a player in the game he helped regulate for more than six years.

Last October, Irving stepped down as assistant secretary of commerce and director of the National Telecommunications and Information Administration to make the leap to private enterprise. After a 17-year career in public service, he is teaming up with basketball legend Earvin "Magic" Johnson in an Internet venture called UrbanMagic.com. Billed as the ultimate Web destination for African-Americans, the site is slated to go live later this year, joining several other African-American Web portals in what is fast becoming a boom period for minority-oriented Internet businesses.

Named in 1995 as one of the 50 most influential persons in Newsweek's "Year of the Internet" issue, Irving was described as "the Net's conscience" for promoting racial and gender equity on the information superhighway. One of his most significant initiatives at the Department of Commerce was "Falling Through the Net," a survey released last July that tracked access to telecommunications and information technology, including the Internet, across racial, economic, and geographic lines. Its findings revealed a significant "digital divide," with white households in 1998 being three times as likely to have access to the Internet as African-American and Hispanic households. The survey also found that although high- and middle-income families were getting connected online in increasing numbers, the technology gap between white and African-American households actually widened by 6 percent from 1997 to 1998.

BY NINA NOWAK

The media immediately latched onto the notion of the digital divide, and by the end of 1999 the catch phrase had claimed a spot in the political lexicon, with President Clinton calling Internet access a "key civil rights issue of the 21st century."

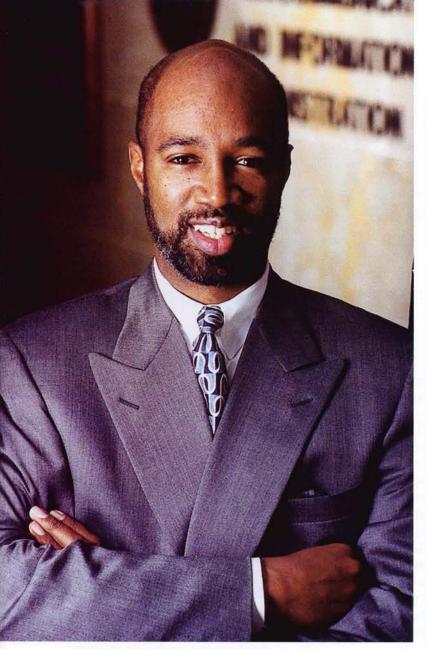
The highest priority in addressing the digital divide is at-home use, according to Irving. "If one kid has access to a computer at home twenty-four hours a day, seven days a week, and another kid has access through school or the library one hour a week, that's not an even playing field," he said.

Online access also is essential for small businesses, colleges and universities, and public institutions such as community centers, he says. "Overall, more than 50 percent of small business are connected, but many rural businesses aren't. What we call e-business today will be considered business-as-usual tomorrow, and if those rural businesses don't get connected, they'll be left behind.

"Virtually every student at a school like Stanford has a computer, but go to a Native American school, a small, rural, community college, or an African-American college, and those students will often know less about the Internet or technology-even if they're engineering majors-because they just don't have the same access to technology."

Some critics have dismissed the idea of the digital divide, insisting that the cost of computers and Internet service will continue to decrease and that eventually Internet access will be as commonplace in American households as television and indoor plumbing. But Irving isn't satisfied with waiting. "We have to start getting this technology into middle-class and lower-income households," he said. "People are realizing that a lot of the dot-com market capitalization depends on continued economic growth, but for it to last, all Americans have to be part of that growth."

Irving has begun a dialogue with the high-tech community to remedy what he sees as a blind spot regarding mi-



"Why don't these companies talk to hip-hop stars, fashion leaders, and create a laptop with a little style to it instead of making it all about wearing khakis and a poorly fitting t-shirt?"

nority hiring. "Leaders of prominent high-tech companies tell me they can't find people of color who are qualified engineers. But when I speak to human resources people, they tell me that practically eighty percent of the jobs in those companies don't require technical skills. That means something else is going on. It may not be overt racism, but there is no real outreach to the minority community, and high-tech companies need to work on this," Irving said.

In spite of its naysayers, the Commerce survey has already spurred action. Ford Motor Company and Delta Air Lines, which recently announced plans to provide all employees with Internet-ready PCs, offer evidence that industry is concerned about closing the digital divide. "That wouldn't have happened without increased public awareness," Irving said.

Of course, bringing equity to the wired world involves more than government intervention and industry give-aways. According to Irving, high-tech companies must do a better job of marketing their products directly to minorities. Computer ads are conspicuously absent in magazines targeted to African-Americans, such as *Ebony*, *Essence*, or *Black Enterprise*, he says. "The marketing departments of these companies assume blacks don't buy computers, Hispanics don't buy computers. But if these guys had a clue, they'd start marketing laptops to people of color. Why don't these companies talk to hip-hop stars, fashion leaders, and create a laptop with a little style to it instead of making it all about wearing khakis and a poorly fitting t-shirt?"

Enter UrbanMagic.com, which seeks to fill this hightech marketing vacuum by creating "more compelling content for communities of color." The site will be partly owned by Magic Johnson's growing business empire, Magic Johnson Enterprises, which also includes a chain of movie theaters and a film and television production company. "Earvin wants to use his business ability and his fame to draw people to the Net. He has a remarkable ability to go into underserved communities, offer them a quality product, and have them embrace it," Irving said.

Irving's role as CEO of the new venture is the perfect marriage of his interests in technology policy, civil rights,

and media. A self-professed "pop culture junkie," he partially paid his way through college by "scratching" rap and hip-hop records as a disk jockey at parties. He graduated from Northwestern with a BA in 1976 before coming to the Law School, where he was elected class president. After working at the Washington, D.C., law firm

of Hogan and Hartson, he served as legislative director, counsel and acting chief of staff for the late Congressman Mickey Leland of Texas. In all, Irving served 10 years on Capitol Hill, most recently as senior counsel to the House Subcommittee on Telecommunications and Finance. President Clinton appointed him assistant secretary of commerce in 1993.

He hopes to use that experience to pull all Americans into the Internet age. "We can do more to make sure that the new economy benefits everyone," he said.

enforc

Christopher Painter chases criminals through the dark alleys of cyberspace

BY KEVIN COOL

ORMER ASSISTANT U.S. Attorney Christopher Painter '84 has had about enough of Kevin Mitnick. After six years of pursuing and prosecuting the nation's most notorious computer hacker-winning separate convictions that resulted in Mitnick's 68-month jail sentence-Painter was ready to put the case behind him.

Then two weeks before Mitnick's scheduled release from federal prison in January, Painter received a call from a 60 Minutes producer asking for an interview. "They want me to talk to Ed Bradley," said Painter, who was at the Law School on January 10 to speak at a National Association of Attorneys General conference on cybercrime. "I suppose I should."

That resigned reaction more or less sums up Painter's feelings about his highest profile defendant. "This was a career case in an odd sense-it seemed like it took my entire career," he said.

Painter hopes he's heard the last of Mitnick, even if it means his own brief celebrity is over. "I think I'm at about fourteen and a half minutes of my fifteen minutes of fame," he said two days before Bradley's piece-including a short segment with Painter-aired on 60 Minutes. But in fact, the Mitnick case may turn out to be the warm-up act of Painter's cyber-sleuthing career. In February, Painter moved from Los Angeles to Washington, D.C., to become deputy chief of the

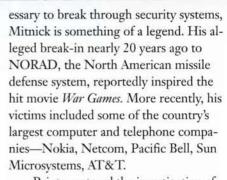
Computer Crime and Intellectual Property Section at the Department of Justice. He helps supervise approximately 25 attorneys in the section, who work on legislative, policy, training, and other issues relating to computer crime and intellectual property matters.

Painter has been at

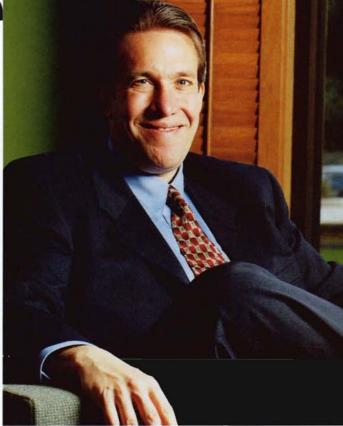
the forefront of computer crime interdiction since joining the U.S. attorney's office in Los Angeles in 1991. He has served as one of the computer and telecommunications crime coordinators since the program's inception, investigating and prosecuting cases involving computer hackers, trademark and copyright violations relating to computer software, and the theft of trade secrets.

He won convictions in the nation's first Internet auction fraud case and in the only two Internet stock manipulation cases to date, establishing himself as one of Justice's go-to guys for prosecuting sophisticated computer crimes. Most recently, he was at the center of a nationwide FBI probe into a flurry of hackers' attacks on major Internet websites that disrupted service and spooked e-commerce investors.

Mitnick was his first big catch. An Über-hacker, skilled in the wizardry nec-



Painter entered the investigation after a series of computer break-ins in the early 1990s, and agents soon tabbed Mitnick as their chief suspect. Still on probation for a 1989 computer fraud conviction, Mitnick fled when a warrant was issued for his arrest. For the next twoand-a-half years, he frustrated attempts to capture him through a combination of luck and sophisticated cloaking techniques-Mitnick knew how to clone a cell phone, which made tracing the origin of his calls difficult. Meanwhile, the list of



victims continued to grow-even on the lam, Mitnick was hacking away. The FBI got close several times, but Mitnick kept slipping through their fingers. Finally, in February 1995, their persistence paid



inside it," Painter said.

Mitnick eventually pleaded guilty to four counts of wire fraud, two counts of computer fraud, and one count of illegally intercepting a wire communication.

Mitnick's advocates claimed that his actions were driven by curiosity, not expectations of financial gain. But motive was irrelevant to the victims of his crimes, says Painter. "If someone breaks into and ransacks your house, reads your diary, steals your letters, and copies your secret business papers, it does not matter that they didn't do it to make moneyyou still have been seriously harmed and you still have to take steps [to ensure your security]."

And Painter, not surprisingly, is less magnanimous in his assessment of Mitnick's conduct. "This guy did real damage. He attacked systems relentlessly, stole information, and tried to cover his tracks rather than expose any security flaw," he said.

Computer intrusion continues to grow, exacerbated by a hacker community eager to share its expertise. The hackers who paralyzed Web traffic on Yahoo!, eBay, buy.com, and several other popular sites on the Internet in early February weren't necessarily highly skilled opera-

Painter hopes the government sent a strong message recently with its swift apprehension and prosecution of cybercriminals in high profile fraud cases.

off-federal agents traced a call by Mitnick from a North Carolina apartment and took him into custody.

Extradited to California, Mitnick sat in jail while lawyers for both sides assembled their cases. The discovery process was tortuous, says Painter, and created unusual legal dilemmas. For example, Mitnick asked to review encrypted electronic files seized as evidence, but the government successfully fought the request, citing the defendant's history of code breaking. "We didn't know what was in those files; you don't give someone a safe that might have a gun

tors. "Whereas a few years ago a hacker like Mitnick needed sophisticated skills to break into a computer system, now a teenager with very little technical knowledge can go on the Internet and find point-and-click hacking tools and unleash them," Painter said.

But hackers are only part of the problem. Scam artists have found a new medium with the Internet, where potential victims by the millions can be approached with stealth and at little cost. Painter hopes the government sent a strong message recently with its swift apprehension and prosecution of cybercriminals in high-profile fraud cases. In one of those, feds snagged computer engineer Gary Hoke, who attempted to defraud investors by creating a false Bloomberg News report on the Web that suggested his employer, PairGain, was about to be acquired by a larger technology firm. Based on the fraudulent information, investors in just 90 minutes pushed PairGain stock up 30 percent before it crashed when news got out about the false report. Some investors lost thousands of dollars.

Painter, working with a team of FBI agents, navigated a labyrinth of electronic footprints to trace the origin of the bogus report. The agents worked "practically non-stop" during the investigation, Painter says, and at one point he spent 40 straight hours in his office monitoring developments.

That investigation revealed how networked computers are both an ally and an enemy of law enforcement, Painter says. Criminals like Hoke can disguise themselves by using multiple Internet service providers-some of which are overseas-and bouncing information from place to place until the origin of the transmission is virtually obscured. Locating the source requires tenacity and technical know-how. "If you are tracking down sophisticated computer hackers, you need equally sophisticated people to catch them," Painter said. "We have them, not in great abundance, but we have them."

He concedes that the government cannot investigate and prosecute every computer-related crime. "We look for those cases that might have some deterrent effect," he said. "We are sending a message that this conduct will not be tolerated, and that we will catch people and lock them up. Word spreads quickly on the Internet, so when somebody gets caught, others know it."

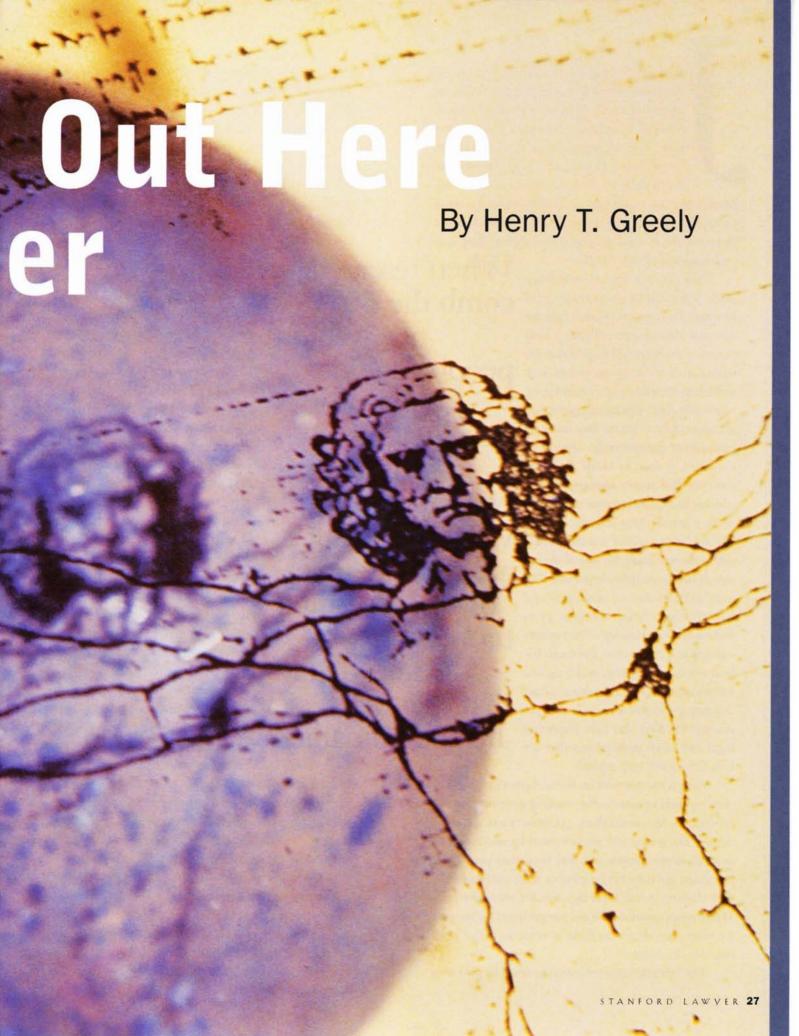
His new position at DOJ gives him more opportunities for fighting computer crime. "As this area of law enforcement becomes increasingly important, we're going to need more and more resources and more training, and I'm in a position now to have some say in making that happen."

on the Fronti

Can the law keep up with bioscience?

Here's what faculty are doing to help.

AND NOW FOR A WORD FROM THE CARBON-BASED LIFE FORMS The articles in this issue of the Lawyer illustrate the vibrant and growing engagement between Stanford Law School and the silicon-based world that encompasses computers, software, telecommunications, information technology, networks, and the Internet. As the newly appointed director of the Law School's Program in Law, Science & Technology, I am very happy about that engagement. But our program has another side: Let me show you samples of the equally deep engagement of Law School faculty and students in the biosciences and the 3.8-billion-year-old information technology they are decoding.



ust under 50 years ago Jim Watson and Francis Crick discovered the structure of DNA. It has been just under 30 years since Paul Berg, a Stanford biochemist, discovered how to move genes from one organism to another through the "recombinant DNA" technology that won him the Nobel Prize. Almost 25 years ago, Genentech became the first modern biotechnology company, using

technology from UC-San Francisco and Stanford. Today, these and other developments have taken us deep into understanding how life works.

Medicine now regularly uses drugs made from human genes transported into bacteria or yeast. Genetic tests are now available commercially for a wide variety of medical conditions, either for testing embryos or fetuses before birth or for testing children and adults for future health risks. The human genomethe three billion letters that make up our species' genetic code-should be published, at least in "draft" form, by the time this article appears, though whether first by government researchers or by a private firm remains unclear. The publication of "the" human genome will in no way mark the end of the research, but the end of its beginning. The next generations of scientists and biotechnology firms, will then try to make sense-and money-from understanding how the genome, and the six billion variants of it that make up our species, works. The likely advances have staggering scientific and medical implications. But they also have important legal and social implications that the Law School will help explore.

Much of my own work has involved genetic testing. The press regularly reports the discoveries of genes that "cause," for example, Alzheimer's disease, prostate cancer, and colon cancer. The researchers are motivated by understanding more about the diseases, and, they hope, their prevention, treatment, and cure, but long before those benefits follow, their discoveries can form the basis for predictive tests. Which raises questions. Should you get tested for the gene (or, more properly, for the allele, or variation, of that gene) linked to the disease?

The first generation of concerns raised by gene tests

related to the fears of employment and insurance discrimination that might result. Although we still don't have clear answers to those issues, we are now looking deeper, at questions that should be important to Congress, state legislators, regulators, and judges. Should genetic tests be regulated and, if so, how? Do I have a right to know something about family members' genes that might affect my health? Can I sue (successfully—as I remind my first-year students, I can always sue) my father's doctor for not warning me about the implications of my father's genetic dis-

ease for me?

If we want to protect people from the misuse of their "genetic information," how do we define genetic information? That I'm male provides information about my genes, a standard blood test provides some more, and my family history still more. Over the last few vears Stanford has been the site of intensive working groups that are investigating genetic testing for breast cancer susceptibility and Alzheimer's disease. The Law School has been intimately involved in that work. I codirected both efforts and Stanford law students participated in both.

Genetic tests result from human genetics research. That research, in the past, has involved tracing families afflicted with high rates of genetic diseases-Huntington's disease, sickle-cell anemia, cystic fibrosis-and comparing the DNA from affected and unaffected family members. But most major diseases-heart disease, diabetes, some mental illnesses, many cancers-clearly have a genetic component but one that is too weak to be discovered by

looking at families. Researchers are exploring a different path to finding those genes, through the creation of massive databases of medical and genetic information on hundreds of thousands, or millions, of people and looking for associations between genetic variations and disease.

This approach holds out new possibilities for discovery, but raises new questions about human subjects research. If researchers want to use medical records from all the members of an HMO for research, do they have to get each member's permission? If they want to get genetic samples from huge populations, do they have to discuss,

When researchers comb the DNA of a million people looking for discoveries that they hope will become commercially valuable products, are those people owed something more than the knowledge that they've helped humanity? in detail, each piece of research they might want to do with the resulting repository?

When doing research with families at high risk for genetic disease, the research holds the promise of a reward for those families—the hope for prevention or treatment of "their" disease. But when researchers comb the DNA of a million people looking for discoveries that they hope will become commercially valuable products, are those subjects owed something more than the knowledge that they've helped humanity—and a drug company's stock price? These are largely new issues to human subjects research. They are issues of law, of science, and of justice.

George E. Osborne Professor of Law John Barton has helped lead the exploration of the legal implications of

many new technologies, from the control of nuclear weapons to the development of computerized databases. His strong interests in patent law have led him to work for patent law reform, particularly with respect to biotechnology. His biotechnology work has included four years of service on the Recombinant Activities Committee, the NIH body much in the news lately for its role in overseeing human gene therapy trials. He has served on a blue ribbon National Institutes of Health committee to examine how patenting of "research tools" affects the biomedical research, and he has long been active in international efforts to preserve and make use of the genetic diversity of crops, particularly rice, to help develop better varieties for the developing world.

Currently, Professor Barton is tackling the problem of vaccines for diseases of the developing world. Each year, two million children die in the developing

world from diseases that can be prevented by currently available vaccines. Untold millions more die from diseases that could be prevented by newly developed vaccines—but the vaccine market is a complicated one, even for diseases that strike people in rich countries. Vaccines that treat diseases affecting mostly the poor have no commercial potential. Professor Barton is trying to change that, through proposing and promoting an international treaty that would both make sure that firms had incentives to create new vaccines and that developing countries, and their people, would have access to them. Only someone with a deep knowledge of biology, markets, and international organi-

zations could undertake such an effort.

This year, the Law School welcomed its first Visiting Professor of Law, Science & Technology, Rebecca Eisenberg from the University of Michigan. Professor Eisenberg, a Stanford graduate (AB '75), began her academic career by becoming a world expert on biotechnology patents. She wrote some of the earliest, and still some of the best, analyses of the legal and policy issues of gene patents and continues to work in those fields. She has written about the possible barriers to scientific research of "too much" property, caused by the potential transaction costs of getting licenses to a large portfolio of gene patents in order to do any research or make any product. She chaired the NIH committee on research tools on which John Barton served.

And, in her role as a visiting professor, she gave a public lecture at the Law School last October to an overflow audience about the continued reasons for concern about gene patents.

In recent years, Professor Eisenberg's interests have moved both downstream and upstream from biotechnology patents themselves. She has explored a fascinating divergence in how different firms have tried to handle intellectual property. One leading genomics firm granted a few exclusive licenses to pharmaceutical companies to search their gene libraries for particular diseases; a second leading firm granted many nonexclusive licenses. At the same time, one of the major pharmaceutical companies instead funded gene hunting at a university center, with the proviso that the resulting genes not be anyone's intellectual property.

While at Stanford this year, Professor Eisenberg has begun a collaboration looking at a still different side of the biotech patenting world. Along with Professor Walter H. Powell of Stanford's Sociology Department, Eisenberg is exploring the associations between "inventorship" and "authorship" in the world of biotechnology, a connection that has implications not only for researchers' c.v.'s but for patent law.

Important scientific discoveries often lead to both publications and patents. Both of these instruments recognize the achievements of participants in the underlying research. But the rules for determining authorship on publications appear to be quite different than the rules for de-

Professor
Peggy Radin
explored how
various new
technologies
could turn the
parts of human
bodies—and
ultimately
perhaps humans
themselves—into
commodities.

termining inventorship on patents. Who decides who will be included in the ever-expanding lists of authors on scientific publications, and on what basis? When corresponding patent applications are filed, who selects the much smaller group of individuals who will be listed as inventors? To what extent is the apparent divergence between authorship and inventorship a matter of law, and to what extent is it determined by social norms?

Other members of the Law School community have also worked on issues related to bioscience. Professor of Law and Robert E. Paradise Faculty Scholar Janet Halley wrote provocatively about the possible implications, for gay rights and more broadly, if sexual preference were found to be determined or heavily influenced by genet-

ics. William Benjamin Scott and Luna M. Scott Professor of Law Margaret Jane Radin, in her influential work on commodification, explored how various new technologies could turn the parts of human bodies-and ultimately perhaps humans themselves-into pieces of property.

Our students have also been active in the field. Dianna DeVore '98 wrote, while a student, on human cloning and on breast cancer genetic testing. Jennifer Kulynych '98 published on the banking of umbilical cord blood. Corey Salsberg '01 has just published a fascinating article on the possibilities of reviving the woolly mammoth species through

cloning technologies. Dianna and Jennifer came to law school with PhD degrees in bioscience fields; Corey, on the other hand, asked on the first day of the Biotechnology Law and Policy course whether his complete lack of biological background would be a problem. It wasn't.

And, of course, the Law School gains immensely from being part of Stanford and of the Bay Area. This university leads the world in many aspects of genetics and biological sciences. The Law School benefits from courses cotaught by members of the Department of Genetics; our students mix with bioscience graduate students and postdocs in several courses and seminars. Faculty interested in learning about the real world of the biotechnology industry can—and do—interact with people from local firms such as Roche, Genentech, Affymetrix, and Geron.

One of the satisfying aspects of working in this field is its immediate relevance to society. Human societies-in the United States and elsewhere—are going to have to de-

cide what they should do about these new technologies. People at the Law School—faculty, staff, and students have a golden opportunity to contribute to those answers. For example, I serve on the California Advisory Committee on Human Cloning. This body was created by a California statute that put a five-year moratorium on reproductive human cloning, set to expire in 2002. Before then, however, the committee is to report to the legislature with its findings and recommendations on the field. No federal legislation exists; only four states have passed significant state bans. California once again may lead the world, and Stanford Law School is there. Few people have not only the ability and willingness to grapple with the science but also the legal knowledge to recommend answers. We have more than

our fair share of them.

The Law School is at the heart of the new silicon-based world, but we are also wrapped in the DNA of the new bioscience. In February 1975, molecular biologists came together at the Asilomar conference center near Monterey to discuss a moratorium on research with recombinant DNA. This Asilomar conference was a landmark in the history of molecular biology and the social responsibility of scientists. This February, another conference was held at Asilomar, to discuss the impact of the first conference and its implications for the future. Sixtyseven participants took part, from all over the world. Only a few institutions had

more than one representative—two from MIT, two from CalTech, two from NYU, two from the NIH. Stanford Law School led the field, with three.

Our Program in Law, Science & Technology is about bioscience. And about dot-coms. And, more fundamentally, about any new technologies that promise-or threatento change our lives and our laws.

Roughly half a century ago, subatomic physics was transformed from a 50-year research project to a "technology." At about the same time Watson and Crick discovered the structure of DNA, Remington Rand sold the first commercial electronic computer, the UNIVAC. I cannot predict what research project, taking its first awkward steps today, will be transforming our world in 50 years—or in five. I can only predict that, whatever it is, Stanford Law School will be on top of it.

Henry T. Greely is Professor of Law and director of the Program in Law, Science & Technology at Stanford Law School.

professors in print

Excerpts from faculty publications, quotations, and commentaries

STANFORD'S WOMEN'S legal history website, which features biographical chapters and archival information on hundreds of pioneering women lawyers in the United States, is particularly important because "there are so many women in law school now. It's a revolution. It's a very important time to look back on history."

BARBARA BABCOCK, Judge John Crown Professor of Law, in a Cyber Esquire story about the Women's Legal History Biography Project at the Law School, which also featured law librarians PAUL LOMIO and ERIKA WAYNE.

"Independent directors often turn out to be lapdogs rather than watchdogs. The majority-independent board of General Motors did nothing for a decade, while GM floundered, first under Roger Smith and then under Robert Stempel. The majority-independent board of American Express fired former CEO James Robinson only when faced with open shareholder revolt, despite a decade of business problems, with a few scandals along the way—enough so that the business press had dubbed Robinson the 'Teflon CEO'—all of those problems, and none ever stuck. Many other companies—including IBM, Kodak, Chrysler, Westinghouse, and Borden—performed abysmally for years despite majority-independent boards."

Professor of Law BERNARD BLACK, with Sanjai Bhagat, from "The Uncertain Relationship Between Board Composition and Firm Performance," in Business Lawyer.

"Before this case (Reno v. Bossier School Board) came down, the Justice Department was in a position to object to new reapportionment plans that perpetuated past intentional discrimination. And now they can only object to the plans that make things worse, not to plans that simply keep the bad, old system in place."

PAMELA KARLAN, Kenneth and Harle Montgomery Professor of Public Interest



Law, on National Public Radio's "All Things Considered," commenting on a federal review of redistricting proposals.

"Popular and professional moralists have a tendency to over-condemn lying. . . . In situations where honesty conflicts with other important values, there is no reason to presume that honesty should prevail. To the extent that Quasi-Categorical Moralism argues otherwise, it is wrong. To the extent that it merely urges sensitivity to the cost of lying, it is not wrong, but its rhetorical influence may be pernicious. This influence is to encourage distrust of independent moral judgment and anxiety about moral self-assertion."

WILLIAM SIMON, William W. Saunders and Gertrude H. Saunders Professor of Law, from "Virtuous Lying: A Critique of Quasi-Categorical Moralism," in the Georgetown Journal of Legal Ethics.

"If it succeeds . . . it will change western water policy for the twenty-first century. This is the first situation where an agricultural district is voluntarily agreeing to save sizable quantities of water and transfer them on a long-term basis to an urban area."

BARTON THOMPSON, JR. '76, Robert E. Paradise Professor of Natural

JOURNAL

Bradley Used Bankman's Tax Ideas

THE WALL STREET JOURNAL reported that Democratic presidential candidate Bill Bradley's tax plan draws heavily from proposals by Joseph Bankman, Ralph M. Parsons Professor of Law and Business.

The Journal, noting that Bradley wanted "a trademark issue to bolster his campaign," targeted corporate tax shelters and loopholes that his advisors say cost the government billions of dollars a year. Bankman's ideas—including the imposition of tougher disclosure requirements and the strengthening of IRS powers to punish corporate cheaters—were cited by Bradley's advisers in shaping their own program, according to the Journal.

"The biggest losers would be what Bankman calls the 'hyperaggressive' accountants and lawyers and their clients who have devised ever more sophisticated techniques for manipulating companies' tax liabilities," the Journal reported.

professors in print

Resources Law, commenting on an agreement (brokered by Acting Deputy Secretary of the Interior David Hayes '78) that will allow San Diego to lease water from the Imperial Valley, thereby reducing pressure on Southwest water supplies, in the Las Vegas Review-Journal.

"Political money today goes directly into political advertising, the quintessential form of political speech. . . . Reformers sometimes say they merely seek to limit money, not speech. But a law, say, barring newspapers from accepting paid political advertisements or limiting the prices of political books would also limit only the exchange of money. Yet no one would question that it would inhibit political speech-as do the restrictions on campaign finance."

KATHLEEN SULLIVAN, Dean and Richard E. Lang Professor of Law and Stanley Morrison Professor of Law, in "Paying Up is Speaking Up," a New York Times op-ed.

"...We could view Morris as an honest portrait artist who became exasperated by the opacity of his model and overwhelmed by the difficulty of reconciling his honest awe at Reagan's narcissism with the mixed expectations of his audience, some of whom revere Reagan's political heroism and others of whom will cynically accept any depiction of Reagan as a conventionally shallow figure."

Edwin E. Huddleson, Jr. Professor of Law ROBERT WEISBERG '79, with Susan M. Weisberg, commenting on Edmund Morris's biography of Ronald Reagan, in The New Yorker letters section.

"One issue the courts will have to resolveand it can't wait 100 years—is the relative balance between federal and state power. Different Supreme Courts have taken different views about it. The tug-of-war will continue in politics and in the courts for the next few decades, I suspect. I myself think it has been quite healthy for the court to place some limits on the federal government. Not simply letting Congress do whatever they want to extend federal power and regulations is something to applaud, rather than to sneer at."

GERALD GUNTHER, William Nelson Cromwell Professor of Law, Emeritus, on legal issues confronting the U.S. in the new century, in the San Jose Mercury

"This is an area heavily regulated by the federal government. There is no precedent, but I would not be surprised if the courts hold that these statutes (are invalid)."

MICHAEL KLAUSNER, Professor of Law and Bernard D. Bergreen Faculty Scholar, commenting on attempts to ban bank surcharges on ATM transactions, in the San Jose Mercury News.

"Even if cloning humans were safe and we as a society had decided it was ethically justifiable for reproductive purposes, I don't think we'd see a lot of clones. The old-fashioned way of making babies has a lot going for it: it's easy, traditional, well understood, and occasionally even pleasant. People are not going to give up sex anytime soon."

Professor of Law HENRY GREELY, commenting on the implications of successfully cloned sheep, in Popular Science.

CLARIFICATION

A Professors in Print item in the Fall 1999 Lawyer misrepresented the position of Professor Deborah Hensler on judicial independence. The item accurately guoted from Hensler's article in the Southern California Law Review that "Judicial independence is under attack. . . . This is a situation made for empirical research. . ." But that excerpt merely captured the context for the debate, it did not state Hensler's position, which is that empirical research is not needed. Her article discusses inconsistencies and ambiguities in the debate about judicial independence. After briefly citing the positions of others who spoke at a symposium on the issue, the introduction to the article ends by saying, "... I am not persuaded that the issue of judicial independence is worth a substantial investment of analysts' time [and] . . . I worry that the debate over judicial independence diverts us from more important questions about how to create a just society in the United States."

JOURNAL

Hensler Leads Rand Study on Class-Action Payouts

DEBORAH HENSLER, Judge John W. Ford Professor of Dispute Resolution, was the lead author of a study by the Rand Institute for Civil Justice that urged judges to take a stronger role in overseeing settlements of class-action suits. The Wall Street Journal reported that the three-year study "gave a qualified endorsement to legislation that the House approved in September aimed at expanding federal courts' authority over class-action suits initially filed in state court."

One of Rand's key findings was that millions of dollars from class-action settlements are unclaimed by plaintiffs, calling into question the benefits to consumers when compared to the cost of litigation. While acknowledging that plaintiffs' attorneys help reveal corporate misconduct, the Rand study recommended that lawyers' fees-which sometimes equal or exceed the total amount claimed by the plaintiffsbe more closely tied to the compensation such settlements provide consumers.

"Rand said such problems arise partly because judges often approve settlements without much scrutiny," the Journal reported. "In several cases, judges failed to identify the actual losses plaintiffs incurred, in considering whether to approve a settlement, said Hensler She added that few judges conducted any significant follow-up to see what consumers eventually received from the settlements."

law gatherings

MARK FELLMAN

Longtime Stanford supporters Peter S. Bing (AB '55), *left*, and Helen Bing join Warren Christopher '49 at the Los Angeles reception in honor of Dean Kathleen Sullivan at Wiltshire Ebell last December.

Anne Thornton '73 (MBA '72), left, and Lucinda Lee '71 take in the festive mood at a rollout reception in honor of Dean Kathleen Sullivan held at the City Club of San Francisco last November.



VISUAL ARTS SERVICES

In December, Law School graduates took the oath at the Class of 1999 swearing-in ceremony in the Manning Faculty Lounge. Dean Kathleen Sullivan, right, chats with the Hon. Elizabeth A. Grimes '80, left, of the Superior Court of California and the Hon. Susan Y. Illston '73, center, of the U.S. District Court of the Northern District of California. Grimes and Illston both officiated at the swearing-in ceremony.



ALUMNI WEEKEND 2000

THURSDAY TO SUNDAY OCTOBER 19 TO 22

oin alumni, friends, faculty, and students to celebrate Stanford Law School's rich tradition of excellence, renew old ties and develop new ones, and participate in charting the School's innovative course for the new millennium.

Our agenda for the weekend includes the following new events and traditional favorites:

- The 21st Century Lawyer: The Future of the Profession A series of speakers and panels will focus on the increasingly complex roles that lawyers play in the face of globalization, new technologies, and a rapidly changing business and policy environment.
- Delegates' Summit & Volunteer Leadership Breakfast Our opportunity to thank those who have donated their time and energy to the Law School, and to brief potential volunteers on the many ways to become involved in the life of the School.
- ◆ The Media: Reporting the News or Making It? A University roundtable forum moderated by Harvard Law School professor Charles J. Ogletree, Jr., AB '74, AM '75.
- Reunion Dinners

Members of the classes of 1950, 1955, 1960, 1965, 1970, 1975, 1980 1985, 1990, and 1995 will gather with classmates for delectable food and even better conversation.

◆ Stanford vs. USC Football Game

Show your rousing support for the Cardinal and help the team repeat last season's thrilling gridiron victory!

To support tomorrow's leaders ...

To foster innovation in the teaching of law ...

To sustain a standard of excellence ...

The Stanford Law Fund

Here are just three reasons why Stanford Law School's continued success depends on the ongoing commitment of alumni like you.

 Outstanding students and graduates — Stanford Law School prepares leaders. Stanford graduates practice in the nation's foremost law firms, public interest organizations, government agencies, and businesses.

2. Innovative curriculum —

More than ever, society needs lawyers who are skilled and ethical problemsolvers. The Stanford Law School curriculum — emphasizing ethics, analytical thinking, and decision making and negotiation skills — prepares students to be successful practitioners and contribute to society.



3. World-class faculty — Stanford Law School faculty are among the most respected scholars and educators in legal academia. They are academic innovators, designing a curriculum that will prepare students for the challenges of law, business, and public policy in an increasingly complex environment.

Your annual gifts will go to work immediately, addressing the Law School's most critical and urgent needs:

- resources for faculty teaching and research, including the restoration of Stanford's distinctive faculty-tostudent ratio
- student financial aid to mitigate the debt burden of a Law School education, through scholarships and the Loan Repayment Assistance Program
- funding for innovative curricular and clinical programming, such as the Stanford Law and Technology Policy Center

Support Stanford Law School today. Every dollar you invest will yield rich dividends!

Beverly J. Watson '99 and Alejandro Cestero '99 talk with Frederick I. Richman Professor of Law Marc A. Franklin.

To support tomorrow's leaders . . .

□ \$1,000	□ \$500 □	\$100 🗆 \$50	□\$	÷,	
l am making my gift by: ☐ Check (Payable to Stanford Law School) ☐ Visa ☐ MasterCard ☐ American Expre	55	NAME	c	LASS YEAR	
☐ Securities, please have your broker call Caro	Gilmer at (650) 926-0244.	ORGANIZATION			
ACCOUNT NUMBER	EXPIRATION DATE	ADDRESS			
SIGNATURE		CITY	STATE	ZIP	
			1720	172GO57 / 01585	

... I am enclosing my tax-deductible gift to the Stanford I aw Fund in the amount of

What are your thoughts about training tomorrow's leaders?

How can Stanford Law School help them meet the challenges of the future in the legal profession and in society at large? Please write me via e-mail at law.development@forsythe.stanford.edu, or, if you prefer regular mail, use the space below. Thank you.

Michael A Kahi-

Michael A. Kahn '73 National Law Fund Chair



The Law Fund

Stanford Law School Crown Quadrangle 559 Nathan Abbott Way Stanford, California 94305-9958

Phone: (800) 227-8977 x 34463 or (650) 723-4463

Web: http://lawschool.stanford.edu E-mail: law.development@forsythe.edu