



Lee Tien

Lee Tien is a senior staff attorney with the Electronic Frontier Foundation in San Francisco, California, specializing in free speech and privacy law. Before joining EFF, he litigated Freedom of Information Act cases. He received his undergraduate degree from Stanford University and his law degree from Boalt Hall, University of California at Berkeley. Since Sept. 11, Tien has focused heavily on privacy and surveillance issues. His current major policy concerns include electronic surveillance, biometrics, location-tracking technologies, and data mining.

Jim Waldo

Jim Waldo is a Distinguished Engineer with Sun Microsystems Laboratories, where he conducts research in large-scale distributed systems. Prior to (re)joining Sun Labs, he was the lead architect for Jini, a distributed programming system based on Java. He also has worked in the Java software product division and has done research in the areas of object-oriented programming and systems, general distributed computing, and user environments. Before joining Sun, Waldo spent eight years at Apollo Computer and Hewlett Packard (HP). While at HP, he led the design and development of the first Object Request Broker, and was instrumental in getting that technology incorporated into the first OMG CORBA specification. He edited the book *The Evolution of C++: Language Design in the Marketplace of Ideas* (MIT Press), was one of the authors of *The Jini Specification* (Addison Wesley), and participated in the National Academies' study on networks of embedded computers that resulted in the book *Embedded Everywhere*. Waldo is an adjunct faculty member of Harvard University, where he teaches distributed computing in the department of computer science. Jim received his Ph.D. in philosophy from the University of Massachusetts, Amherst. He also holds M.A. degrees in both linguistics and philosophy from the University of Utah. He is a member of the IEEE and ACM.

Dan White

Dan White is Technical Evangelist – RFID, New Technologies, for NCR Corporation's Retail Solutions Division (RSD). A member of the RSD Engineering & Development organization, he is responsible for evaluating RFID and other new technologies, determining potential applications in the retail industry, and formulating related strategic direction. He prototypes concepts, develops scenarios of where the retail industry is headed, and promotes new ideas and technology internally and externally. White joined NCR in 1988 as a design engineer and has held various engineering positions focused primarily on retail point-of-sale peripherals and advanced development. His previous roles include managing RSD's large peripheral development team and implementing strategies he conceived while working in advanced development. White has served as NCR's representative to several key industry initiatives, including the Technology Board of EPCglobal, the MIT Media Lab and the Microelectronics and Computer Corporation research consortium. White holds several patents in various retail and PC technical innovations. He graduated *magna cum laude* with a Bachelor of Science from Furman University and holds a bachelor of science in Electrical Engineering from the Georgia Institute of Technology.

Britt Wood

Britt Wood is Senior Vice President of Industry Relations for the Retail Industry Leaders Association (RILA, formerly IMRA). He has been with RILA since 1995 and in that time has led or been a part of every division including membership, public relations, technology, research, education, and government affairs. He is currently responsible for all of RILA's Membership efforts for all new business initiatives, and he serves as RILA's main representative on several external industry-related committees, including the EPC Alliance for the past four years. He also serves on the Board of Point of Purchase Advertising International and is a member of the American Society of Association Executives. Wood is a graduate of Virginia Tech in Blacksburg, Virginia.

Manuel Albers

Manuel Albers is the Regional Director of Business Development for Identification Products (Integrated Circuits for Smart Cards, RFID Tags & Labels and Readers) in the Americas at Philips Semiconductors. Philips Semiconductors, a market leader in identification technologies with more than 1 billion RFID products shipped to date, is a division of Royal Philips Electronics of the Netherlands, one of the world's biggest electronics companies and Europe's largest, with sales of EUR 29 billion in 2003. Originally from Hamburg, Germany, Albers has 10 years of experience with Smart Card and RFID technology and has held several Sales and Marketing positions within Philips Semiconductors' Identification Group before relocating to the United States in 2000. He holds a degree from the Academy of Business Economics in Hamburg, Germany.

Katherine Albrecht

Katherine Albrecht is the founder and director of CASPIAN (Consumers Against Supermarket Privacy Invasion and Numbering), the organization responsible for launching the RFID consumer privacy movement in 2002. A Harvard doctoral researcher and consumer advocate, Albrecht has riveted audiences with her live talks and hundreds of hours of radio and television appearances. Her voice has been heard on CNN, BBC World News and NPR, and her work has been recognized by virtually every major publication that has covered RFID. Albrecht holds an undergraduate degree in International Marketing and a Master's degree in Instructional Technology. She is currently completing her doctorate in Education at Harvard University where she is writing her dissertation on consumer education and privacy.

Bill Allen

Bill Allen is marketing communications manager for TI-RFid Systems. In this position, he is responsible for worldwide marketing communications strategy and managing TI-RFid's public relations, advertising, and trade show involvement, while also serving as company spokesperson. Prior to this position, Allen was eMarketing manager, responsible for the group's e-marketing initiatives and for growing e-commerce opportunities for TI-RFid solutions. He currently serves as the chairman of the RFID steering committee for AIM, the global organization for ID technologies, and actively speaks at conferences and trade shows in the U.S., Europe, and Asia.

Rob Atkinson

Rob Atkinson is vice president of the Progressive Policy Institute (PPI) and director of PPI's Technology & New Economy Project. He is the author of the New Economy Index series which looks at the impact of the New Economy on the U.S., state, and metropolitan economies. While at PPI he has written groundbreaking reports on a wide range of technology issues, including the role of IT in homeland defense; Internet taxation, privacy, and spam; global e-commerce; digital government; and middleman opposition to e-commerce. He also directed PPI's New Economy Task Force, co-chaired by Senate Majority Leader Tom Daschle and Gateway CEO Ted Waitt. Atkinson is a board member of the NanoBusiness Alliance and the Information Policy Institute, and was appointed by President Clinton to the Commission on Workers, Communities, and Economic Change in the New Economy. He also is a member of the Task Force on National Security in the Information Age, co-chaired by Markle Foundation president Zoe Baird and former Netscape Communications chairman James Barksdale. In 1999,

Atkinson was featured in *Who's Who in America: Finance and Industry*, and in 2002, he was awarded the Wharton Infosys Business Transformation Award Silver Medal. In addition, Government Technology magazine and the Center for Digital Government named him one of the 25 top "Doers, Dreamers and Drivers of Information Technology." Atkinson received his Ph.D. in City and Regional Planning from the University of North Carolina at Chapel Hill.

Elizabeth Board

Elizabeth Iden Board brings to the EPC Public Policy Action Committee a rich background in communications and public affairs, including executive positions in the White House communications office, United States Department of Agriculture, network news, and corporate communications. She has been a media and public affairs consultant to a variety of industries and individuals since 2002. Previously Board was vice president for global corporate communications for ACNielsen and the Readers Digest Association. She also served as director of public issues for the Distilled Spirits Council of the United States where she was responsible for developing and implementing communications strategy on a variety of issues. She worked in the White House during the second term of President Ronald Reagan, 1985-89, first as special assistant to the President and director of the television office, later as deputy assistant to the President and director of the media and broadcast relations office. Before joining the administration, Board worked in the Washington bureau of NBC Network News as senior unit manager and network news editor. She earned a Bachelor of Arts degree, *magna cum laude*, at the University of Colorado and a Masters of Business Administration at George Washington University. She also earned a diploma from the Broadcasting and Film Institute of Stanford University and completed a certificate program in investor relations at the University of Connecticut.

Christopher Boone

Christopher Boone is a program manager covering the retail, wholesale, and CPG manufacturing industries for IDC's U.S. Vertical Industry Research Group. In this role, he has covered RFID for the retail supply chain extensively for the past year and a half, interviewing hardware, software and services vendors as well as end-users to establish a view of the RFID ecosystem and create a market forecast for this emerging area. Boone speaks to the press on a daily basis about RFID, and his RFID research has been quoted in *Investor's Business Daily*, *Financial Times*, the *New York Times*, *Reuters*, *CNET*, and *RFID Journal* among many other publications. He has presented on RFID in front of venture capitalists, investment bankers and equity research firms, and recently moderated a panel on RFID for the National Retail Federation at the National Press Club in Washington, D.C. Most recently, he hosted IDC's RFID Update conference in Boston on June 6 and 7. Prior to joining IDC, Boone worked in film production, including as the assistant to the producer of David Mamet's film, *State and Main*, and later as production manager for Scout Productions.

Paula Bruening

Paula Bruening is Staff Counsel for the Center for Democracy and Technology (CDT), where she specializes in privacy and free expression issues. Before joining CDT, she served as Senior Attorney-Advisor for the Office of Chief Counsel, National Telecommunications and Information Administration, U.S. Department of Commerce and worked closely with the White House on the Administration's e-commerce policy. Bruening began her career in information policy at the U.S. Congress Office of Technology Assessment, where she participated in studies on encryption, computer security, intellectual property, and privacy. She has spoken extensively in the United States and in Europe on information policy issues and served as an onsite consultant to the Organization for International Cooperation and Development in Paris, France. Bruening earned her law degree from Case Western Reserve University School of Law.

portfolio of Technology Consulting offers, promoting Technology Innovation, working with early adopter clients, and influencing career and competency models for CGEY's technology consultants. Previously he was a Senior Partner in the Strategy & Corporate Development Group at Ernst & Young LLP (E&Y) and the Director for Innovation and Strategy for E&Y in the Americas Region, responsible for developing and delivering a vision of the future of professional services and an implementation strategy. Prior to this role, Parkinson was Chief Technologist for E&Y's Global eCommerce group and head of its Global Solutions team. He has degrees in Mathematics and in Information Sciences from Exeter University, UK. Parkinson has written or edited books on information systems development and has contributed over 40 papers to conferences and journals. He writes a bi-monthly column for *CIO Insight* and is a member of its editorial advisory board. Parkinson has acted as the US consulting unit's CIO and led the programs that developed the Ernie online consulting service and innovative offerings in Knowledge Management and eCommerce. In 2003, he was named by Global Consulting News as one of the world's 25 most influential consultants, and in 2004 was named Co-chair of the ITAA Committee on RFID and the Chair of the ITAA Task Group on Public Policy Formulation for RFID.

Paul Rudolf

Paul Rudolf became Senior Advisor for Medical and Health Policy in the Office of Policy at the Food & Drug Administration (FDA) in July 2003. He was a member of the FDA's Counterfeit Drug Task Force and was responsible for developing policy recommendations in the areas of authentication technology, track and trace technology, and secure business practices for the task force. Rudolf joined the Federal Government in May 1999 as a Medical Officer at the Centers for Medicaid and Medicare Services (CMS) where he won several administrator citations for his work on physician and hospital payment policy. While at CMS his primary areas of responsibility were for developing payment and coding policy for the hospital outpatient prospective payment system, the physician fee schedule, and the ambulatory surgery fee schedule. Rudolf is board certified in both Internal Medicine and Endocrinology. He practiced medicine from 1987-2003 and is a Clinical Associate Professor of Medicine at George Washington University School of Medicine. Rudolf was a Carrier Medical Director for Trailblazer Health Enterprises from 1997-1999 where he was responsible for developing local coverage and review policy for the Medicare Program. He received his B.A. in philosophy from Yale, his M.D. from the University of Florida, and his J.D. from George Washington University.

Peter E. Sand

Peter E. Sand serves as the Director of Privacy Technology in the Privacy Office of the U.S. Department of Homeland Security (DHS). Prior to joining DHS, he served as the Chief Privacy and Chief Information Officer for the Pennsylvania Office of Attorney General. Before the Office of Attorney General, Sand practiced as an attorney and technology consultant to government agencies, non-profit and educational organizations, assisting in the long-term growth of public service through information technology. He received a double B.A. from Villanova University and a J.D. from the Villanova University School of Law.

James Stafford

For over 25 years James Stafford, Head of RFID, has been involved in the creation and management of the Innovation Program at Marks & Spencer, where he leads the development of RFID technology to improve supply chain efficiency and customer service. He is a recognized authority in this field and has contributed at many international conferences. Stafford started his career as a Food Technologist and holds an honors degree from Reading University. He subsequently broadened his career into horticulture, cosmetics, footwear, home furnishings, and clothing. He has traveled extensively in his various roles and spent time working in Canada.

Livingston is a graduate of Yale College and received an MBA in marketing and finance from the Amos Tuck School at Dartmouth College.

William MacLeod

Bill MacLeod heads the competition practice in the law firm of Collier Shannon Scott in Washington, D.C., specializing in antitrust, advertising, and trade regulation. His practice ranges from the Federal Trade Commission to the Department of Justice, to Congress and the courts. His clients include manufacturers, retailers, and trade associations in virtually every sector of the economy, and his Collier Shannon teams have helped shape major events in antitrust and trade regulation. From 1986 until 1990 he directed the Federal Trade Commission's Bureau of Consumer Protection. As Director, he was the chief federal prosecutor of deceptive advertising and the U.S. delegate to a committee of the Organization for Economic Cooperation and Development. MacLeod began his public service in 1982, as attorney adviser for FTC Chairman James C. Miller, III. In 1983, he was named director of the Federal Trade Commission's Chicago Regional Office, overseeing antitrust and consumer protection enforcement in seven Midwestern states. A native of Chicago, Illinois, MacLeod is an honors graduate of Ripon College, did graduate work in economics at the University of Virginia and received his J.D. with honors from the University of Miami. He is a member of the American Bar Association where he is a member of the Council of the Antitrust Section.

Elliot E. Maxwell

Elliot E. Maxwell is a corporate strategist and attorney who consults and writes on the intersection of business, technology, and public policy in telecommunications and electronic commerce. Maxwell has split his career between the private and public sectors, providing corporate strategy advice in the office of the Chairman of Pacific Telesis Group, advising two different chairmen of the Federal Communications Commission, and serving as the principle advisor on the Internet and electronic commerce to U.S. Secretaries of Commerce Daley and Mineta. He is a Distinguished Research Fellow at the e-business research Center at Penn State University, and a Fellow of the Center for the Study of the American Government at Johns Hopkins University. He chairs the International Policy Advisory Council to MIT's Auto ID Center and EPCglobal. Maxwell is a graduate of Brown University and the Yale Law School.

Deirdre Mulligan

Deirdre Mulligan came to Boalt from the Center for Democracy and Technology, where she worked to advance privacy, free speech, and other democratic values on the Internet. In 2001 she joined the Boalt faculty as acting clinical professor and director of the Samuelson Law, Technology, and Public Policy Clinic. Mulligan serves on the California Internet Political Practices Commission, created to examine issues posed by political activity on the Internet in relation to the goals of the Political Reform Act of 1974 and to recommend necessary legislative changes. She also serves on the National Academy of Science Committee on Authentication Technologies and their Privacy Implications. Mulligan wrote "Privacy in the Digital Age: Work in Progress," in *Nova Law Review* (with Berman, Winter 1999). With the Center for Democracy and Technology, she issued a report, *Square Pegs and Round Holes: Applying the Campaign Finance Law to the Internet--Risks to Free Expression and Democratic Values* (October 1999). She also prepared the *Report to the Federal Trade Commission of the Ad-Hoc Working Group on Unsolicited Commercial Email* (July 1998).

John Parkinson

John Parkinson is a Vice President and the Chief Technologist for Capgemini's Americas Region and a member of the Group's Office of the CTO, developing strategy and setting direction for Capgemini's

Mallory Duncan

Mallory B. Duncan has served as Senior Vice President, General Counsel for the National Retail Federation (NRF) for the past ten years. He is responsible for coordinating strategic legislative and regulatory initiatives involving customer data privacy, financial services, and consumer protection. He is a member of the NRF Executive Staff. Prior to joining NRF, Duncan served as corporate counsel in the Washington office of the JC Penney Company Inc., where he advised stores and headquarters on federal and state legislative and regulatory issues, and gained experience with retail credit granting procedures. He was an attorney advisor in the Office of Policy Planning at the Federal Trade Commission, working on the policies underlying U.S. credit laws, and was previously associated with the law firm of Sutherland, Asbill & Brennan. Duncan is a graduate of Pomona College and Yale Law School. He has served on the boards of several non-profit organizations, including the National Hospice Foundation and the Edes Home Foundation.

Daniel W. Engels

Dr. Daniel W. Engels was appointed the Research Director/Executive Director of the Auto-ID Labs at the Massachusetts Institute of Technology (MIT) in October 2003. The Auto-ID Labs is a federation of university research labs founded in October 2003 to continue research related to the EPC System. Engels chairs EPC Global's Hardware Action Group, which is charged with developing the hardware standards used within the EPC System. Prior to his appointment at MIT Auto-ID Labs, Engels was the Director of Protocols of the Auto-ID Center where he led the development of radio frequency identification protocols and the operational research activities. He has authored several articles published in peer reviewed conferences and journals. His work includes seminal publications on the Reader Collision Problem, as well as articles on the EPCTM System, computer automated design, theoretical complexity of scheduling problems, and programming languages. Engels received a Doctor of Philosophy degree in Electrical Engineering and Computer Science from MIT, a Master's of Science degree in Electrical Engineering and Computer Science from the University of California, Berkeley, and a Bachelor's of Science degree in Electrical Engineering and Computer Science, *summa cum laude*, from the University at Buffalo.

Ken Fishkin

Ken Fishkin is a researcher at Intel Research Seattle, and an Affiliate Professor of Computer Science at the University of Washington. He has over 15 years experience in Industrial R&D, including stints at Pixar (4 years), and Xerox PARC (8 years). While at PARC, he co-founded the "eXtreme UI" research effort, which helped invent what are now called "Tangible User Interfaces." Fishkin has published widely in the fields of Computer Graphics and User Interfaces. His current research centers on ways that Ubicomp networks can help infer and guide human activities, with a focus on novel uses and techniques for RFID. Fishkin holds Bachelor's degrees in Computer Science and in Mathematics from the University of Wisconsin, Madison, and a Master's degree in Computer Science from the University of California, Berkeley.

Lyle Ginsburg

Lyle Ginsburg is the managing partner for technology innovation in Accenture's global Products Operating Group. He was Accenture's Board Member at the Auto-ID Center and now represents the company at EPCglobal. He is responsible for much of Accenture's investments in RFID/EPC, including several business case white papers, RapidStart Methodology, and Strategic Alliances. With more than 20 years experience identifying new technology trends and bringing them to market, Ginsburg now focuses on finding the value of Silent Commerce for Accenture's global clients in retail, consumer goods, electronics, transportation, hospitality, pharmaceuticals, health and life sciences, automotive and industrial industries. He works with clients globally but is based in Chicago, Illinois.

Beth Givens

Beth Givens is founder and director of the Privacy Rights Clearinghouse (PRC), established in 1992. The PRC is a nonprofit consumer education, research, and advocacy organization located in San Diego, California. Givens has developed the PRC's Fact Sheet series as author and editor. The series provides information on how to safeguard one's privacy in a wide variety of situations including identity theft, telemarketing, junk mail, medical records, the Internet, employment background checks, wireless communications, and financial records. In addition, she is the author of the *Privacy Rights Handbook: How to Take Control of Your Personal Information* and is co-author of *Privacy Piracy: A Guide to Protecting Yourself from Identity Theft*. Givens contributed the identity theft entries for the *World Book Encyclopedia* (2004) and the *Encyclopedia of Crime and Punishment* (2002).

Sandy R. Hughes

Sandra R. (Sandy) Hughes serves as the Global Privacy Executive (CPO) at the Procter & Gamble Company (P&G), headquartered in Cincinnati, Ohio. P&G's privacy program has been designed and implemented to promote trust among consumers, employees, and other constituencies by protecting individuals' rights to privacy. Hughes's career spans 27 years at the P&G, with assignments in the U.S. (Cincinnati & Alabama), Germany, and Belgium. Having an Information Technology background from Miami University (OH), she has worked with every business unit and most functions in P&G, and led local, regional, and global projects, specializing in business process re-engineering. Hughes is a member of the board of directors for the International Association of Privacy Professionals and the executive committee of the Center for Information Privacy Leadership, and the executive council of the Conference Board of Chief Privacy Officers. She also founded the council of CPO's for RFID/Electronic Product Code Privacy implementation, is a member of the Public Policy Steering Committee of EPCglobal, and has been active in creating guidelines and as a speaker on use of item level tagging. Hughes is an active participant and speaker with Frost & Sullivan Business Strategy & Intelligence groups, Competia International and has membership in the Society of Competitive Intelligence Professionals, Privacy and American Business, Coalition for Global Information Flows, National Coalition for e-Commerce & Privacy.

Sue Hutchinson

Sue Hutchinson joined EPCglobal US in April 2003, bringing more than 18 years of experience in high-tech product management and technology transfer. Her specialties include product and portfolio planning, customer relationship management, and analytics and database marketing. As product manager for EPCglobal US, a division of the newly-formed joint venture between the Uniform Code Council (UCC) and EAN International, Hutchinson is responsible for the Solution Partner Program and for building subscriber services for the many hardware and software companies joining the EPCglobal US community. Prior to joining EPCglobal US, she served as senior solutions manager at Avaya, Inc. There she led the design and delivery of integrated contact center solutions. Other previous employers include NCR Corporation, Visible Systems Corporation, and Mathsoft, Inc. Hutchinson earned a Bachelor's degree in management science and a Master's degree in industrial and management engineering at Rensselaer Polytechnic Institute in Troy, New York.

Ari Juels

Dr. Ari Juels is principal research scientist at RSA Laboratories, where he oversees the various data-security projects of the applied research program. While RFID security and privacy have been a recent emphasis of his research, he has also published papers in the last several years on topics including denial-of-service countermeasures, Internet privacy protection, electronic voting, biometric security, and

user authentication. Juels has participated on the program committees of a number of technical conferences, and recently served as program chair for Financial Cryptography 2004. He is presently serving as a member of the editorial board of the Handbook of Information Security, co-organizer of the DIMACS Workshop on Electronic Voting, and president of the International Financial Cryptography Association. Juels received his Ph.D. in Computer Science at U.C. Berkeley.

Simon Langford

As the manager of RFID strategy for Wal-Mart Stores, Inc., Simon Langford is responsible for the integration of the EPC into Wal-Mart systems. He also is leveraging the benefits of the EPC to deliver a positive return on investment, working with suppliers to help educate and ease implementation, and working with standards groups and technology providers to develop global standards and solutions. In September 2001 Langford moved to Bentonville, Arkansas, from the United Kingdom, where he was responsible for the Retail Systems team that managed the Wal-Mart systems integration at ASDA. Once in Bentonville, he worked in the store systems area before taking on the challenge of implementing RFID into the Wal-Mart supply chain. A native of England, Langford earned a degree in business studies at Huddersfield University in the United Kingdom and a Certificate of Food Retailing at the Bristol Retailing Academy. Langford worked at ASDA for seven and a half years before moving to the U.S. and has worked in the retail industry for 21 years.

Cédric Laurant

Cédric Laurant is Policy Counsel with the Electronic Privacy Information Center (EPIC). He concentrates on international privacy issues and comparative policy and legal aspects of European and US privacy regimes. Cédric's recent work has focused on the profiling of air travelers, video surveillance, the negotiation of the APEC Privacy Guidelines, governmental electronic surveillance and transborder data flows in the European Union and the United States, European telecommunications and privacy laws, and the Council of Europe Cyber-crime Convention. He is supervising production of the 2004 edition of *Privacy and Human Rights*, EPIC's international survey of privacy laws and developments in the world. He also coordinates EPIC's actions within two international coalitions: the Global Internet Liberty Campaign and the Trans Atlantic Consumer Dialogue. Prior to his arrival at EPIC, Cédric worked with the Center for Democracy and Technology and Swidler Berlin Shereff Friedman. Outside of EPIC, he is a co-founder of WebLegalis, a Belgian consulting firm in Internet law. Cédric holds a licence en droit (J.D.) from the University of Louvain (Belgium), a Master of Laws from Columbia University School of Law (New York), a European Master of Arts in Science, Technology and Society (London), and a Diploma in Print and Broadcast Journalism (Brussels).

Frederick C. Livingston

Frederick C. (Ted) Livingston works as a Privacy Consultant for companies and organizations. He has worked for the Federal Trade Commission to help identify the impact on personal privacy of emerging technologies. Livingston has focused on topics such as cable and satellite digital set-top boxes, digital video recorders (DVR's), the Internet and RFID (Radio Frequency Identification) systems. In addition, Livingston works as a Business Development/Marketing Executive for emerging content, software, and applications companies, helping to establish strategic relationships, identify marketing opportunities, and deploy innovative applications and content on the cable modem and cable digital set-top box (DSTB) platforms. For 17 years Livingston served in senior marketing roles for Continental Cablevision, Inc., the country's third largest cable TV operator, including as Senior Vice President of Marketing from 1988 until 1996. After leaving Continental he worked for a number of technology/broadband companies, including Into Networks, Inc., Navic Systems, Inc., ForPower.com, Inc., and Next Century Media, Inc.