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## TPRC 2001 Program

Saturday, October 27, 2001

**1:00pm - 7:00pm**  
East Lower Foyer

### REGISTRATION

### TUTORIALS

**2:30pm - 5:30pm**  
Plaza Ballroom C

### Entering the Debate, Influencing the Agenda

#### SESSION I:

**Moderator:** Sharon Stover, University of Texas  
Paul Margie, FCC Commissioner Michael Cobbs Office  
Robert Peper, FCC Office of Plans and Policy  
Brett Perlman, Commissioner, Public Utility Commission of Texas

#### SESSION II:

**Moderator:** Andrew Blau, Flanerie Works  
Mark Cooper, Consumer Federation of America  
David Farber, University of Pennsylvania  
Gigi Sohn, Public Knowledge  
W. Russell Neuman, Professor, University of Michigan

**2:30pm - 4:30pm**  
Walnut Room

### The Internet's Coming of Age

**Moderator:** David D. Clark, MIT  
David A. Kettler, H.I.G. Ventures  
John C. Klensin, AT&T  
Milo Medin, Excite@Home

**5:30pm - 6:30pm**  
Upper Lobby Foyer

### RECEPTION

**6:30pm - 7:30pm**  
Terrace Ballroom

### DINNER

### OPENING PLENARY SESSION

**7:30pm - 9:30pm**

**The Federal Communications Commission**  
Gerry Faulhaber

## Sunday, October 28, 2001

7:30am - 4:00pm  
East Lower Foyer

### REGISTRATION

7:30am - 8:30am  
Magnolia Room

### BREAKFAST

8:30am - 10:10am  
Beech Room

### Comparative Regulation

**Chair:** Hudson Janisch, University of Toronto

#### Conceptualising Regulatory Change: Explaining Shifts in Telecommunications Governance

Seamus Simpson, Rorden Wilkinson

#### Inventing E-Regulation in the U.S., E.U. and East Asia: Conflicting Social Visions of the Internet & the Information Society

Shalini Venturelli

#### Revenge of the Bellheads: How the Netheads Lost Control of the Internet

Rob Frieden

8:30am - 10:10am  
Plaza Ballroom C

### Value Sensitive Design of Cyberspace

**Chair:** Lorrie Cranor, AT&T Labs-Research

#### Ideological and Policy Origins of the Internet, 1957-1969

Andrew L. Russell

#### The Role of Institutions in the Design of Communication Technologies

Rajiv C. Shah and Jay P. Kesan

#### Computer Security: Competing Conceptions

Helen Nissenbaum, Batya Friedman, and Edward Felten

#### Leveraging Software, Advocating Ideology: Free Software and Open Source

Matt Ratto

8:30am - 10:10am  
Terrace Room East

### Standards

**Chair:** Neil Gandal, Tel Aviv University

#### Comparison of Wireless Standards-Setting: United States Versus Europe

Zixiang (Alex) Tan

**Standards and Intellectual Property Rights in the Age of Global Communication – A Review of the International Standardization of Third-Generation Mobile Systems**

Björn Hjelm

**Antitrust, Intellectual Property and Standard-Setting Organizations**

Mark A. Lemley

**Standardization Versus Coverage in Wireless Telephone Networks**

Neil Gandal and David Salant

**8:30am - 10:10am**  
Terrace Room West

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**Pricing Structures**

**Chair:** Nicholas Economides, Stern School of Business

**Do Switching Costs Make Markets More or Less Competitive? The Case of 800-Number Portability**

V. Brian Viard

**The Bucket Brigade: Pricing and Network Externalities in Peer-to-Peer Communications Networks**

Sam Chandan and Christiaan Hogendorn

**Lead, Follow, or Go Your Own Way: Empirical Evidence Against Leader-Follower Behavior in Electronic Markets**

Karen Clay, Michael Smith and Eric Wolff

**Competition and Price Dispersion in International Long Distance Calling**

Sean Ennis

**10:10am - 10:40am**  
Plaza Ballroom Foyer

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**BREAK**

**10:40am - 12:20pm**  
Beech Room

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**International Issues in Internet Regulation and Ecommerce**

**Chair:** Sharon Gillett

**Is There a There There? Toward Greater Certainty for Internet Jurisdiction**

Michael Geist

**The Effect of Native Language on Internet Use**

Neil Gandal and Carl Shapiro

**Indicators of Independence in Regulatory Commissions**

Susan E. Oberlander

**Competition and Globalization: Brazilian Telecommunications Policy at Crossroads**

Clelia Piragible

10:40am - 12:20pm  
Plaza Ballroom C

**Security in Political and Economic Contexts**  
Chair: Matt Blaze, AT&T Labs-Research

**Internet Attacks: A Policy Framework for Rules of Engagement**  
William Yurcik and David Doss

**What Should be Hidden and Open in Computer Security:  
Lessons from Deception, the Art of War, Law, and Economic  
Theory**  
Peter P. Swire

**Security and Freedom Online After September 11**  
Alan Davidson

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10:40am - 12:20pm  
Terrace Room East

**ENUM; IP Telephony**  
Chair: Milton Mueller, Syracuse University School of Information  
Studies

**E PLURIBUS ENUM: Unifying International  
Telecommunications Networks and Governance**  
Craig McTaggart

**Analyzing ENUM Service and Administration from the Bottom  
Up: The Addressing System for IP Telephony and Beyond**  
Junseok Hwang, Milton Mueller, Gunyoung Yoon and Joonmin Kim

**ENUM: The Collision of Telephony and DNS Policy**  
Robert Cannon

**Voice Over IP in the Local Exchange: A Case Study**  
Martin B. H. Weiss and Hak Ju Kim

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10:40am - 12:20pm  
Terrace Room West

**Spectrum Markets**  
Chair: William J. Drake, Carnegie Endowment for International  
Peace

**Spectrum Auctions, Pricing and Network Expansion in  
Wireless Telecommunications**  
Johannes M. Bauer

**Best Effort Versus Spectrum Markets: The Cases of European  
MVNOs and (Ultra) Wideband Unlicensed Services**  
Lee McKnight, Raymond Linsenmayer and William Lehr

**On the Use of Vickrey Auctions for Spectrum Allocation in Developing Countries**

G. Anandalingam

**Communications Convergence, Spectrum Use and Regulatory Constraints, or Property Rights, Flexible Spectrum and Satellite Versus Terrestrial Uses and Users**

Douglas W. Webbink

12:20pm - 1:50pm  
Magnolia Room

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**LUNCH AND PLENARY SESSION**

**Loaning Your Soul to the Devil: Influencing Policy Without Selling Out**

**Speaker:** Matt Blaze, AT&T Labs-Research

2:00pm - 3:40pm  
Beech Room

**Africa and Globalization**

**Chair:** Hudson Janisch, University of Toronto

**Globalization and Governance in Cyberspace: Mapping the Processes of Emergent Regime Formation in Global Information and Communications Policy**

Derrick L. Cogburn

**Negotiated Liberalization: Stakeholder Politics and Communication Sector Reform in South Africa**

Robert B. Horwitz

**Between a Rock and Hard Place: Assessing the Application of Domestic Policy and South Africa's Commitments Under the WTO's Basic Telecommunications Agreement**

Tracy Cohen

2:00pm - 3:40pm  
Plaza Ballroom C

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**Understanding the User**

**Chair:** Lee Rainie, Pew Internet & American Life Project

**The Internet, 1995-2000: Access, Civic Involvement, and Social Interaction**

James E. Katz, Ronald E. Rice, and Philip Aspden

**Second-Level Digital Divide: Mapping Differences in People's Online Skills**

Eszter Hargittai

**Analyzing Website Choice Using Clickstream Data**

Avi Goldfarb

**Profiling Internet Users' Participation in Social Change  
Agendas: An Application of Q-Methodology**

Josephine Previte, Greg Hearn, and Susan Dann

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**2:00pm - 3:40pm**  
Terrace Room East

**Domain Name Governance**

**Chair:** L. Jean Camp, Harvard University

**ICANN and Antitrust**

A. Michael Froomkin and Mark A. Lemley

**Competing DNS Roots: Creative Destruction or Just Plain  
Destruction?**

Milton L. Mueller

**Realspace Sovereigns in Cyberspace: The Case of Domain  
Names**

R. Polk Wagner and Catherine T. Struve

**ICANN as Regulator**

Jonathan Weinberg

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**2:00pm - 3:40pm**  
Terrace Room West

**Mass Media**

**Chair:** Charles Firestone, The Aspen Institute

**Is the Commercial Mass Media Necessary, or Even Desirable  
for Liberal Democracy?**

Neil Netanel

**Internet TV: Business Models and Program Content**

David Waterman

**Internet Radio: A New Engine for Content Diversity?**

Benjamin Compaine and Emma Smith

**What's Fit to Print: The Effect of Ownership Concentration on  
Product Variety in Daily Newspaper Markets**

Lisa George

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**2:00pm - 3:40pm**  
Walnut Room

**Ecommerce**

**Chair:** Rob Frieden, Penn State University

**Electronic Commerce, Consumer Search and Retailing Cost  
Reduction**

Cristina Mazòn and Pedro Pereira



**The Consumer Product Selection Process in an Internet Age:  
Obstacles to Maximum Effectiveness and Policy Options**

Mark S. Nadel

**Bigger May Not Be Better: An Empirical Analysis of Optimal  
Membership Rules in Peer-to-Peer Networks**

Atip Asvanund, Karen Clay, Ramayya Krishnan and Michael Smith

**Value of Usage and Sellers' Listing Behavior in Internet Auctions**

Sangin Park

**3:40pm - 4:10pm**

East Lower Foyer

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**BREAK**

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**4:10pm - 5:50pm**

Beech Room

**Economic Growth and Development**

**Chair:** Lee W. McKnight, Tufts University

**Globalisation, E-Business and SMEs: Evidence from the Italian  
District of Prato**

Lucia Piscitello and Francesca Sgobbi

**Product Cycle, Wintelism, and Cross-national Production  
Networks (CPN) for Developing Countries – China's Telecom  
Manufacturing Industry as a Case**

Zixiang (Alex) Tan

**India Attempts to Give a Jump-start to Its Derailed  
Telecommunications Liberalization Process**

Rajni Gupta

**Telecommunications and Rural Economies: Findings from the  
Appalachian Region**

Sharon Stover, Michael Oden, and Nobuya Inagaki

**4:10pm - 5:50pm**

Plaza Ballroom C

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**Digital Democracy: Prospects and Possibilities**

**Chair:** Andrew Blau, Flanerie Works

**Security Considerations for Remote Electronic Voting Over the  
Internet**

Avi Rubin

**Signing Initiative Petitions Online: Possibilities, Problems, and  
Prospects**

Walter Baer

**CyberCampaigns and Canadian Politics: Still Waiting?**

Tony Christensen and Peter McCormick



**Efficient Choice, Inefficient Democracy? The Implications of Cable and Internet Access for Political Knowledge and Voter Turnout**  
Markus Prior

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**4:10pm - 5:50pm**  
Terrace Room East

**Regulating the Infrastructure**  
Chair: Jorge Schement, Penn State University

**Commonalities: The Rural Electrification Administration and High-Speed Rural Internet Access**  
Laurence J. Malone

**Competition in Fiber to the Home**  
Sharon Eisner Gillett and Emy Tseng

**Voice Versus Data: Estimates of Media Usage and Network Traffic**  
A. Michael Noll

**Policy for Access: Framing the Question**  
David Allen

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**4:10pm - 5:50pm**  
Terrace Room West

**Policy Convergence: Open Access and QoS**  
Chair: Julie Cohen, Georgetown University Law Center

**Open Access Beyond Cable: The Case of Interactive TV**  
Hernan Galperin and François Bar

**Open Access to Monopoly Cable Platforms Versus Direct Access to Competitive International Telecommunications Satellite Facilities: A Study in Contrasts**  
Ken Katkin

**Limits to Certainty in QoS Pricing and Bandwidth**  
L. Jean Camp and Carolyn Gideon

**Quality of Service Monitoring: Performance Metrics across Proprietary Content Domains**  
Shawn O'Donnell, Hugh Carter Donahue and Josephine Ferrigno-Stack

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**6:00pm - 7:00pm**  
Upper Lobby Foyer

**RECEPTION**

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**7:00pm - 9:00pm**  
Plaza Ballroom C

**DINNER AND SOCIAL EVENT**

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## Monday, October 29, 2001

**7:30am - 12:00pm**  
East Lower Foyer

### REGISTRATION

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**7:30am - 8:30am**  
Magnolia Room

### BREAKFAST

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**8:30am - 10:10am**  
Beech Room

#### **Universal Service**

**Chair:** David Phillips, University of Texas at Austin

#### **Universal Service: Specific Services on Generic Networks – Some Logic Begins to Emerge in the Policy Area**

Richard A. Cawley

#### **A Framework for Assessing Universal Service Obligations: A Developing Country Perspective**

Rekha Jain and Pinaki Das

#### **National Information Infrastructure Development in Canada and the U.S.: Redefining Universal Access and Universal Service in the Age of Techno-Economic Convergence**

Martin Dowding

#### **Universal Service in Times of Reform: Affordability and Accessibility of Telecommunication Services in Latin America**

Martha Fuentes-Bautista

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**8:30am - 10:10am**  
Plaza Ballroom C

#### **Communities, Cities, and the Internet**

**Chair:** Gene Crick, TeleCommunity Resource Center

#### **The Internet and Community Networks: Case Studies of Five U.S. Cities**

John B. Horrigan

#### **Higher Civic Engagement among Early Internet Adopters: Trend or Phase?**

Andrea L. Kavanaugh

#### **Geography and the Internet: Is the Internet a Substitute or a Complement for Cities?**

Todd Sinai and Joel Waldfogel

#### **Out of the Loop: Problems in the Development of Next Generation Community Networks**

Murali Venkatesh and Donghee Shin

**8:30am - 10:10am**  
Terrace Room East

**Intellectual Property**

**Chair:** Michael Niebel, European Commission

**Coase's Penguin, or Linux and the Nature of the Firm**

Yochai Benkler

**Is Patent Law Technology-Specific?**

Dan L. Burk and Mark A. Lemley

**Spiders and Crawlers and Bots, Oh My: The Economic Efficiency and Public Policy of Online Contracts that Restrict Data Collection**

Jeffrey Rosenfeld

**8:30am - 10:10am**  
Terrace Room West

**The Law of (Un)intended Consequences? The Telecom Act Five Years Later**

**Chair:** Russell Neuman, University of Michigan

**Assessing the Effectiveness of Section 271 Five Years After the Telecommunications Act of 1996**

Daniel R. Shiman and Jessica Rosenworcel

**The Impact of Incentives in the Telecommunications Act of 1996 on Corporate Strategies**

Martha A. Garcia-Murrillo and Ian MacInnes

**Competition and Commons: The Post-Telecom Act Public Interest, in and after the AOLTW Merger**

Patricia Aufderheide

**The Role of Incentives for Opening Monopoly Markets: Comparing GTE and BOC Cooperation with Local Entrants**

Federico Mini

**10:40am - 12:20pm**  
Beech Room

**Deregulation, Markets, and Social Goals**

**Chair:** Sharon Stover, University of Texas at Austin

**Crisis of Public Utility Deregulation and the Unrecognized Welfare State**

Barbara A. Cherry

**Digital Arroyos: An Examination of State Policy and Regulatory Market Boundaries in Constructing Rural Internet Access**

Kyle Nicholas

**PUC Autonomy and Policy Innovation: Local Telephone Competition in Arkansas and New York**

Hokyu Lee and Harmeet Sawhney

**Bringing the Internet to Schools: U.S. and E.U. Policies**

Michelle S. Kosmidis

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**10:40am - 12:20pm**  
Plaza Ballroom C

**Privacy**

**Chair:** Paula Bruening, The Center for Democracy and Technology

**The Influence of Policy Regimes on the Development and Social Implications of Privacy Enhancing Technologies**

David J. Phillips

**Electronic Access to Information and the Privacy Paradox: Rethinking Practical Obscurity**

Charles N. Davis

**Price Increases from Online Privacy**

Michael R. Ward and Yu-Ching Chen

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**10:40am - 12:20pm**  
Terrace Room East

**Antitrust and Networks**

**Chair:** Mark Lemley, University of California-Berkeley

**Networks Unplugged: Towards a Model of Compatibility Regulation Between Information Platforms**

Phil Weiser

**The Increased Need for FCC Merger Review in a Networked World**

Harold Feld

**Monopoly Power on the Web – A Preliminary Investigation of Search Engines**

Tair-Rong Sheu and Kathleen Carley

**United States v. Microsoft: A Failure of Antitrust in the New Economy**

Nicholas Economides

10:40am - 12:20pm  
Terrace Room West

**The Future of the Unfettered Internet: Wireless Policy Challenges**

Chair: Rick Whitt, WorldCom, Inc.

**Prospects for Improving Competition in Mobile Roaming**  
Ulrich Stumpf

**The Next Frontier for Openness; Wireless Communications**  
Eli M. Noam

**An Architecture for Security and Privacy in Mobile Communications**  
G. Winfield Treese and Lawrence C. Stewart

**From 2G to 3G - The Evolution of International Cellular**  
Audrey N. Selian

12:20pm - 1:50pm  
Magnolia Room

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**LUNCH AND CLOSING SESSION**

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**Adjourn**

10:40am - 12:20pm  
Terrace Room West

**The Future of the Unfettered Internet: Wireless Policy Challenges**  
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Magnolia Room

**LUNCH AND CLOSING SESSION**

**Adjourn**

## Tutorials

### **Entering the Debate, Influencing the Agenda**

**Saturday 2:30pm - 5:30pm**

Plaza Ballroom C

#### **SESSION I:**

**Moderator:** Sharon Stover, University of Texas

Paul Margie, FCC Commissioner Michael Cobbs Office

Robert Peper, FCC Office of Plans and Policy

Brett Perlman, Commissioner, Public Utility Commission of Texas

#### **SESSION II:**

**Moderator:** Andrew Blau, Flanerie Works

Mark Cooper, Consumer Federation of America

David Farber, University of Pennsylvania

Gigi Sohn, Public Knowledge

W. Russell Neuman, Professor, University of Michigan

*A two-part tutorial for scholars interested in how to connect their research to the telecommunications policy process.*

Academic scholarship can be an important contribution to telecommunications policy debates, yet many scholars find the policy process a mystery. What are the opportunities for academic quality research to inform current issues in communication, information and Internet policy, and what are the constraints that scholars need to know about? How is research used in the various policy-making processes, and how is Capital Hill different from the FCC or state commissions? How can scholars most effectively contribute their expertise to the debate? In part one of this two-part session, experienced policymakers will review how the federal and state policy processes work and identify how and where academic research can make a contribution to policy outcomes. In part two, participants in the policy process, including academics who have been on the inside and advocates who have used research to support their positions, will lead a discussion of how it *really* works. They will explore how research is actually used in different kinds of proceedings and how strategic decisions are made to submit or commission research at various points in the policy process. Finally, they will also consider how scholarly researchers and more traditional participants in the policy process could build better links that would promote the more effective use of scholarly research in policy proceedings.



**The Internet's Coming of Age**  
**Saturday 2:30pm - 4:30pm**  
 Walnut Room

**Moderator:** David D. Clark, MIT  
 David A. Kettler, H.I.G. Ventures  
 John C. Klensin, AT&T  
 Milo Medin, Excite@Home

A recent Computer Science and Telecommunications Board report, "The Internet's Coming of Age," examined the key challenges that shape the Internet's maturation with a focus on architecture and core technologies. The tutorial, led by key technologists from the CSTB committee who are designing and building the Internet we will use tomorrow, will discuss the basic choices that underlie the Internet's success; identify key trends in the evolution of the Internet; evaluate current and prospective technical, operational, and management challenges; and discuss implications for decisionmakers.

## Plenary Sessions

**Saturday Dinner Plenary**  
**The Federal Communications Commission**

*Speaker: Gerry Faulhaber*

Professor Gerry Faulhaber recently finished his "Chief Economist gig" at the FCC and returned north to the Wharton School at the University of Pennsylvania. While at the FCC, Prof. Faulhaber had the opportunity to work on the AOL-TW merger, wireless issues, cable issues, etc. He worked in under Chairman Kennard and departed under Chairman Powell. Although he describes his experience as "really, really interesting," he also adds "but I was ready to leave." Prof. Faulhaber has agreed to share reflections on his one-year tenure inside the walls of the FCC.

**Sunday Lunch Plenary**

**Loaning Your Soul to the Devil: Influencing Policy Without Selling Out**

*Speaker: Matt Blaze, AT&T Labs-Research*

Practitioners and researchers in computer security and cryptology often find themselves sought out not only for technical expertise but also by policymakers, lobbyists, and the media. Unfortunately, they are often ill-prepared for the public policy culture, and risk finding themselves misused, misunderstood or misquoted. It doesn't have to be that way. This talk will present a personal view of the relationship between science and public policy, focusing on the differences in value systems, protocols, and expectations found in the two worlds. It really is possible to maintain one's integrity while making a difference, even inside the Beltway.

Matt Blaze has been involved in public policy issues related to cryptology and computer security for many years. In 1994, he discovered a serious flaw in the U.S. Government's "Clipper" encryption system. He has been invited to testify before the U.S. Congress several times on the subject of "key escrow" systems, providing a technical perspective on how to balance the needs for law enforcement for access with those of private citizens for privacy. This work contributed to a recent shift in U.S. encryption policy. More recently, he has been active in the analysis of the FBI's "Carnivore" Internet wiretap system.