27TH ANNUAL
TELECOMMUNICATIONS
POLICY RESEARCH CONFERENCE

BOARD OF DIRECTORS

Jorge Schement
CHAIR
Pennsylvania State University

Walter S. Baer
Vice Chair
RAND/University of Southern California

Charles M. Firestone
SECRETARY/TREASURER
The Aspen Institute

Heather E. Hudson
University of San Francisco

Jeff MacKie-Mason
University of Michigan

Lloyd Morrisett
Children’s Television Workshop

Michael Nelson
IBM Corporation

Richard D. Taylor
Pennsylvania State University

David Waterman
Indiana University

Benjamin M. Compaine
EX-OFFICIO
Harvard University

ORGANIZING COMMITTEE

Benjamin M. Compaine
CHAIR
Harvard University

Phil Agre
University of California

Julie Cohen
University of Michigan

Lorrie Faith Cranor
AT&T Labs-Research

Sharon Eisner Gillett
Massachusetts Institute of Technology

Shane Greenstein
Northwestern University

Jonathan Levy
Federal Communications Commission

Luigi Prosperetti
University of Milan-Italy

Padmanabhan Srinagesh
Charles River Associates

Martin Taschdjian
MediaOne International
<table>
<thead>
<tr>
<th>TRACK</th>
<th>SUN. 8:30AM</th>
<th>SUN. 10:30AM</th>
<th>SUN. 1:45PM</th>
<th>SUN. 3:45PM</th>
<th>MON. 8:30AM</th>
<th>MON. 10:30AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic Commerce and Community</td>
<td>Pricing Structures (Plaza I)</td>
<td>Electronic Participation (Plaza I)</td>
<td>User Studies (Plaza I)</td>
<td>Privacy (Plaza I)</td>
<td>E-Commerce (Plaza I)</td>
<td>Regulation and Online Activities (Plaza I)</td>
</tr>
<tr>
<td>Policy Issues</td>
<td>Intellectual Property (Magnolia Room)</td>
<td>Vertical Foreclosure (Plaza II)</td>
<td>Policy Standards (Plaza II)</td>
<td>Privacy (Plaza I)</td>
<td>Inst. Design for Internet Governance (Magnolia Room)</td>
<td>Regulation and Online Activities (Plaza I)</td>
</tr>
<tr>
<td>Convergence and Competition</td>
<td>Evolution of Industry Structure (Plaza III)</td>
<td>Internet and Mass Media (Plaza III)</td>
<td>Strategies of Incumbents (Plaza III)</td>
<td>Local Access Competition (Plaza III)</td>
<td>Internet Inter-connection (Plaza III)</td>
<td>Statistical Analysis (Plaza III)</td>
</tr>
<tr>
<td>Pricing and Markets</td>
<td>Pricing Structure (Plaza I)</td>
<td>Vertical Forecast (Plaza II)</td>
<td>Policy and Standards (Plaza II) Or Strategies of Incumbents (Plaza III)</td>
<td>Local Access Competition (Plaza III) Or Tradeable Rights (Plaza II)</td>
<td>Developed Countries (Plaza II)</td>
<td>Statistical Analysis (Plaza III) Or Policy Impacts on Investment (Plaza II)</td>
</tr>
<tr>
<td>Telecom and Broadcast Reg.</td>
<td>Developing Countries (Plaza II)</td>
<td>Universal Service: Social Perspective (Magnolia Room) Or Internet and Mass Media (Plaza III)</td>
<td>US &amp; EU Regulatory (Magnolia Room)</td>
<td>International Trade (Magnolia Room)</td>
<td>Developed Countries (Plaza II)</td>
<td>Universal Service: Economic Persp. (Magnolia Room) Or Policy Impacts on Investment (Plaza II)</td>
</tr>
<tr>
<td>Intl Issues (mini-track)</td>
<td>Developing Countries (Plaza II)</td>
<td>US &amp; EU Regulatory (Magnolia Room)</td>
<td>International Trade (Magnolia Room)</td>
<td>Developed Countries (Plaza II)</td>
<td>Developed Countries (Plaza II)</td>
<td>Developed Countries (Plaza II)</td>
</tr>
</tbody>
</table>
27TH ANNUAL
TELECOMMUNICATIONS
POLICY RESEARCH CONFERENCE

Saturday, September 25, 1999

1:00pm-7:00pm  REGISTRATION
LOCATION: UPPER FOYER

TUTORIALS:
2:15pm-4:00pm  LOCATION: MAGNOLIA ROOM
Session 1:
Chair: 
Presenter: 
4:15pm-6:00pm  Intellectual Property Primer
Julie Cohen, Georgetown University
Peter Menell, University of California at Berkeley

Session 2:
Presenters:
5:30pm-6:30pm  Recent Developments in Copyright and Database Protection
Seth Greenstein, McDermott, Will & Emery
Bruce Joseph, Wiley, Rein & Fielding

5:30pm-6:30pm  RECEPTION/CASH BAR
LOCATION: OUTSIDE TERRACE

6:30pm-7:30pm  DINNER
LOCATION: TERRACE BALLROOM

7:30pm-9:00pm  OPENING SESSION
LOCATION: TERRACE BALLROOM
Welcoming Remarks by: Benjamin M. Compaine,
Program Committee Chair

Plenary Session:  Restructuring Telecom for the New Millennium: Is
Bigger Better?
Chair:
Bill Rogerson, Northwestern University

Panelists:
Robert Crandall, Brookings Institution
Barbara Dooley, Commercial Internet Exchange
Association
Esther Dyson, Edventure Holdings
Michael Katz, University of California at Berkeley
Sunday, September 26, 1999

7:30pm-4:00pm
REGISTRATION
LOCATION: LOWER FOYER

7:30am-8:30am
BREAKFAST
LOCATION: TERRACE BALLROOM

8:30am-10:00am
SESSIONS

Location: PLAZA I
Title: Pricing Structures
Chair: Hal Varian, University of California at Berkeley

Papers:
- Pricing in Admissions Policy: Using Hold Options Over IP Networks
  Judith Molka-Danielsen and Ketil Danielsen, Molde College
- Consumers' Willingness to Pay for Intermediation: A Case Study of Peapod
  Karen Clay and Eric Wolff, Carnegie Mellon University
- One Size Doesn't Fit All: Improving Network QoS Through Preference-Driven Web Caching
  Yee Man Chan, Jonathan Womer, Jeff MacKie-Mason and Sugil Jamin; University of Michigan

Location: PLAZA II
Title: Developing Countries
Chair: Rajni Gupta, University of Toronto

Papers:
- Less News is Good News: Fifty Years of Communication Policy in a Volatile Democracy
  Amit Schejter, Tel Aviv University
- The Regulation of Internet Services in North Africa
  Andrea Kavanaugh, Virginia Polytechnic Institute & State University
- Expansion of Accessibility of Telecom. Infrastructure in Emerging Nations: The Case of Bangladesh
  L. Jean Camp and Brian Anderson, Harvard University

Discussant:
Heather Hudson, Univ. of San Francisco
Location: PLAZA III
Title: Evolution Of Industry Structure
Chair: William Sharkey, Federal Communications Commission

Papers:
- Impacts of Mergers and Global Rivalry on Local Network Competition
  Mark Jamison, University of Florida
- Building and Delivering the Virtual World: Commercializing Services for Internet Access
  Shane Greenstein, Northwestern University
- Network Transmission and Storage: Vertical Relationships and Industry Structure
  John Chung-I Chuang, University of California at Berkeley
- The Industrial Organization of the U.S. Internet Service Provider Industry
  Joseph Bailey, University of Maryland

Location: MAGNOLIA ROOM
Title: Intellectual Property
Chair: Julie Cohen, Georgetown University

Papers:
- Patent Scope and Innovation in the Software Industry
  Julie Cohen, Georgetown University and Mark Lemley, University of Texas
- Implications of Contractual Restriction of Software Use for Implementation of the Local Competition Policy of the Communications Act of 1996
  David Rice, Roger Williams University
- Patenting Speech
  Dan Burk, University of Minnesota
- A Historical Analysis of Copyright Liability
  Matt Jackson, Pennsylvania State University

10:00am-10:30am
COFFEE BREAK
LOCATION: FOYER
Sunday, September 26, 1999

10:30am-12:00pm  SESSIONS

Location:  PLAZA I
Title:  Electronic Political Participation
Chair:  Lorrie Faith Cranor, AT&T Labs-Research

Papers:  Policy Ramifications of Information and Communications Technologies (ICTS)
Paul Baker, George Mason Univ.
The Political Economy of Electronic Democratic Forums: The Design of Californian Municipal Web Sites
Christopher Weare, Juliet Musso and Matthew Hale; University of Southern California
On-Line Voting: Calculating Risks and Benefits to the Community and the Individual
James Brent and Linda Valenty, San Jose State University

Discussant:  Paul Craft, Florida Department of State

Location:  PLAZA II
Title:  Vertical Foreclosure
Chair:  Sharon Black, University of Colorado

Papers:  Market Foreclosure and Exclusivity Contracts When Consumers Have Switching Costs
Tommaso Valletti, London School of Economics
The Use of Financial Contracting to Control Downstream Firms: An Analysis of Silver King Communications
Robert Kieschnick, University of Texas at Dallas and Michael Cichello, Michigan State University
David Allen, Harvard University
Aftermarkets in Innovation
Doug Lichtman, University of Chicago
Sunday, September 26, 1999
10:30am-12:00pm
(Continued)

Location: PLAZA III
Title: Internet And Mass Media
Chair: Jonathan Levy, Federal Communications Commission

Papers:
Newspaper Online Services: A Successful Business? Lessons Learned from Videotext Failure
Ya-Ching Lee, Indiana University at Bloomington

Electronic Commerce and Free Speech
Jessica Litman, Wayne State University

Mergers, Divestitures and the Internet: Is Ownership of the Media Industry Becoming Too Concentrated?
Benjamin Compaine, Harvard University

Discussant: Eli Noam, Columbia Institute for Tele-Information

Location: MAGNOLIA ROOM
Title: Universal Service: Social Perspective
Chair: Ingo Vogelsang, Boston University

Papers:
Universal Service Policy and Community Development
John Horrigan, National Research Council

Expanding the Menu: An Informed Choice Model of Universal Service for an Integrated Digital Environment
Jorge Schement and Scott Forbes, Penn State Univ.

Rural Internet Connectivity
Sharon Strover, University of Texas at Austin

The Rural Differential: An Analysis of Population Demographics in Areas Served by Rural Telephone Companies
Vicki Hobbs and John Blodgett, University of Missouri-Columbia

12:00pm-1:30pm

LUNCH
LOCATION: PLAZA BALLROOM B

Lunch Plenary: The Open Source Revolution: Towards a World of Reliable Software
Speaker: Brian Behlendorf, Collab.Net and The Apache Software Foundation
Sunday, September 26, 1999

1:45pm-3:15pm

SESSIONS

Location:  
PLAZA I

Title:  
User Studies

Chair:  
Ken Anderson, MediaOne

Papers:

The Impact of the Internet on Community Involvement: A Network Analysis Approach  
Andrea Kavanaugh, Virginia Polytechnic Institute & State University

Internet Adoption and Usage in China  
Xueping Du, Pennsylvania State University

Policy Challenges for Conflict Monitoring Networks  
Anton Ivanov, FEWER and Kirsten Foot, University of Pennsylvania

The Death of Cities? The Death of Distance? Evidence from the Geography of Commercial Internet Usage  
Jed Kolko, National Bureau of Economic Research

Location:  
PLAZA II

Title:  
Policy And Standards

Chair:  
Walter S. Baer, RAND/USC

Papers:

Consumer Access Equipment Standards: Market or Government Solutions?  
Edward Gallick, FERC; Andrew Wise and Kiran Duwadi; Federal Communications Commission

The DVD vs. DIVX Standard War: Network Effects and Empirical Evidence of Vaporware  
David Dranove, Northwestern University and Neil Gandal; Tel Aviv University and CEPR

Standards WARS: The Use of Standard Setting as a Means of Facilitating Cartels Third Generation Wireless Telecommunications Standard Setting  
David J. Salant, Peter Grindley; LECG, Inc. and Leonard Waverman; LECG Ltd, and London Business School

The Law of Opposite Numbers: Standards Dynamics and the Global Logic of Software  
Phil Agre, University of California, Los Angeles
PLAZA III
Strategies Of Incumbents
Nicholas Economides, Stern School of Business

Number Pooling: Is it Worth the Cost?
Susan McMaster, PHB Hagler Bailly
Strategic Challenges of New Entrants in Australian and New Zealand Telecommunications Markets
Kellie Caughth M.A. Shadur and R. Kienzel; Queensland University of Technology
Competition's Effect on Investment in Digital Infrastructure
Glenn Woroch, University of California, Berkeley
Competition Between Firms that Bundle Information Goods
Scott Fay and Jeff MacKie-Mason, University of Michigan

MAGNOLIA ROOM
US And EU Regulatory
Luigi Prosperetti, Univ. of Milan-Italy

The Irony of Telecommunications Deregulation: Assessing the Role Reversal in U.S. and EU Policy
Barbara Cherry, Michigan State University
Mandatory Resale Rules in Long Distance Markets: Regulation Searching for an (Economic) Justification
Jim Speta, Northwestern University
Reforming TV Regulation for the Digital Era: An International/Cross-Industry Perspective
Hernan Galperin and Francois Bar, Stanford Univ.
A Comparative Institutional Analysis of Communications Regulation
Christopher Marsden, Univ. of Warwick and Harvard Univ.; and Campbell Cowie, BBC
Sunday, September 26, 1999

3:15pm-3:45pm  
COFFEE BREAK  
LOCATION: FOYER

3:45pm-5:15pm  
SESSIONS

Location:  
PLAZA I

Title:  
Privacy

Chair:  
Joel Reidenberg, Fordham University Law School

Papers:  
Knowledge Gaps in the Public Understanding of E-Commerce  
Peter Lunt, University College London

The Implications of Users' Privacy Perception on Communication and Information Privacy Policies  
Anne Adams, University College of London

Beyond Concern: Understanding Net Users' Attitudes About Online Privacy  
Lorrie Faith Cranor; AT&T Labs-Research, Joseph Reagle; Massachusetts Institute of Technology, and Mark Ackerman, University of California, Irvine
Sunday, September 26, 1999
3:45pm-5:15pm
(Continued)

Location: PLAZA II
Title: Tradeable Rights
Chair: Howard Shelanski, Federal Communications Commission

Papers:
Completing the Transition to Digital Television
Coleman Bazelon, Congressional Budget Office
The Resolution of Digital Television: How the Focus of HDTV and Must-Carry are Hinderer the Return of the Analog Television Spectrum
Cory Allen and Elena Larsen; University of Pennsylvania
A "Smart Market" for Trading of Radio Spectrum
Martin Taschdjian, MediaOne International and Mark Bykowsky, Automated Credit Exchange
A Market-Based Mechanism for Universal Service Obligations
Jon Peha, US Congress and Carnegie Mellon University

Location: PLAZA III
Title: Local Access Competition
Chair: Marvin Sirbu, Carnegie-Mellon Univ.

Papers:
TELCOMP - A Model for Determining the Viability of Local Exchange Competition
Joseph Weber; Jeffrey Rohlfs and Calvin Monson, Strategic Policy Research, Inc.
Dominant Firm Pricing with Price-Cap Regulation and Fringe Competition: An Economic Analysis of Local Telephone Pricing
Jaison Abel, Ohio State University
Availability of Broadband Internet Access: An Empirical Analysis
Sharon Eisner Gillett and William Lehr, MIT
National Divergence in Developing Broadband Internet Access: The Specifics of the German Case
Volker Wittke and Heidemarie Hanekop, University of Goettingen
MAGNOLIA ROOM
International Trade
Douglas Galbi, Federal Communications Commission

Papers:

Squaring the Circle: Rebalancing Tariffs Whilst Promoting Universal Service in Jamaica
Geoffrey Myers, Office of Utilities Regulation

Implications of International Accounting Rate Reform for Developing Countries
Yun-Mee Lee, Korea Telecom Research Laboratories

Global Telecommunications, Electronic Commerce, and the World Trade Organization: Considerations on the "Millenium Round"

Dominant Carrier Market Power in United States International Telephone Markets
Scott Savage, Gary Madden; Curtin University of Technology and James Alleman, University of Colorado

6:00pm

RECEPTION
LOCATION: OUTSIDE TERRACE

7:00pm-9:00pm

LUAU
TERRACE BALLROOM
Monday, September 27, 1999

7:30pm-12:00pm  REGISTRATION
LOCATION: LOWER FOYER

7:30am-8:30am  BREAKFAST
LOCATION: TERRACE BALLROOM

8:30am-10:00am  SESSIONS

Location:  PLAZA I
Title:  E-Commerce
Chair:  Phil Agre, Univ. of California

Papers:
Strategic Use of the Internet by Small-and-Medium Sized Firms: An Exploratory Study
Bert Sadowski, Carleen Maitland and Jochem van Dongen; SEPA, TU Delft
Pricing and Bundling Electronic Information
Goods: Field Evidence
Jeff MacKie-Mason, Juan Riveros and Robert Gazzale, University of Michigan
Will E-commerce Compete More with Traditional Retailing or Direct Marketing?
Michael Ward, University of Illinois
Community Level Socio-Economic Impacts of Electronic Commerce
Charles Steinfield, Delft University of Technology and Pamela Whitten, Michigan State University
Monday, September 27, 1999
8:30am-10:00am
(Continued)

Location: PLAZA II
Title: Developed Countries
Chair: Martin Cave, Brunel University

Papers:
- Experimenting with Regulatory Shortcuts in Europe
  Luigi Prosperetti, University of Milan-Italy; Michela Cimatorbus and Cinzia Dalla Torre, MCI WorldCom Italy
- Economic Analysis of Interconnection Charge Policy
  Jeffrey Rohlfs, Strategic Policy Research, Inc.
- Universal Service in Europe - Talk Is Cheap But Data Is Not
  Richard Cawley, European Commission
- Competition and the Pricing of Telecommunications Services in the European Union
  Johannes Bauer and Hyun-Oh Yoo, Michigan State University

Location: PLAZA III
Title: Internet Interconnection
Chair: John Hayes, Charles River Associates

Papers:
- When Internet Peers Become Customers: The Consequences of Settlement-based Interconnection
  Rob Frieden, Pennsylvania State University
- Cost/Benefit Tradeoff of Quality of Service Mechanisms in Integrated Services Networks
  Martin Weiss and Junseok Hwang, University of Pittsburgh
- The Information Interchange: Interconnection on the Internet
  Michael Kende and Jason Oxman, Federal Communications Commission
- Competitive Effects of Internet Peering Policies
  Bridger Mitchell, Padmanabhan Srinagesh; Charles River Associates Inc. and Paul Milgrom, Stanford University
Monday, September 27, 1999
8:30am-10:00am
(Continued)

Location: MAGNOLIA ROOM
Title: Institutional Design For Internet Governance
Chair: Diane Cabell, Fausett, Gaeta & Lund

Papers: Semi-Private International Rulemaking: Lessons Learned from the WIPO Domain Name Process
Michael Froomkin, University of Miami
Institutional Designs for Internet Governance: Current Prospects for ICANN
Jonathan Zittrain, Harvard Law School

Discussant: Milton Mueller, Syracuse University

10:00-10:30am BREAK
LOCATION: LOWER FOYER

10:30am-12:00pm SESSIONS

Location: PLAZA I
Title: Regulation And Online Activities
Chair: Robert Pepper, Federal Communications Commission

Papers: The Internet: Implications for Regulation and Public Policy
Internet Data Management: Policy Barriers to an Intermediated Electronic Market in Data
Thomas Lee, Massachusetts Institute of Technology
In a World Without Borders: The Impact of Taxes on Internet Commerce
Austan Goolsbee, University of Chicago
Hardware-Based ID, Rights Management, and Trusted Systems
Jonathan Weinberg, Wayne State University
Will Tomorrow Be Free? Application of State Action Doctrine to Private Internet Providers
Irina Dmitrieva, University of Florida at Gainesville
Monday, September 27, 1999  
10:30am-12:00pm  
(Continued)

<table>
<thead>
<tr>
<th>Location:</th>
<th>PLAZA II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Policy Impacts On Investment</td>
</tr>
<tr>
<td>Chair:</td>
<td>Martin Taschdjian, MediaOne International</td>
</tr>
</tbody>
</table>

Papers:

- **A Post-Modem Regulatory Policy for Telecommunications**
  Martin Taschdjian, MediaOne International

- **Basic Local Telephone Rates: Comparing Plans for Restructuring**
  Stephen McDowell and Kostadin Kostadinov, Florida State University

- **Competition as a Turbulent Process**
  Johannes Bauer, Michigan State University

- **Telecommunications, the Internet, and the Cost of Capital**
  William Lehr, Columbia University and Massachusetts Institute of Technology; R. Glenn Hubbard, Columbia University

---

<table>
<thead>
<tr>
<th>Location:</th>
<th>PLAZA III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Statistical Analysis Of Producer And Regulator Behavior</td>
</tr>
<tr>
<td>Chair:</td>
<td>Shane Greenstein, Northwestern University</td>
</tr>
</tbody>
</table>

Papers:

- **Organizing and Engaging in Nonmarket Activity: A Transactional Analysis of Corporate Lobbying at the Federal Communications Commission**
  John de Figueiredo, Massachusetts Institute of Technology and Emerson Tiller, University of Texas at Austin

- **An Empirical Examination of Entry Patterns in Local Telephone Markets**
  James Zolnierek, James Eisner and Ellen Burton, Federal Communications Commission

(Con't next page)
Monday, September 27, 1999
10:30am-12:00pm
(Continued)

A Taxonomy of Communications Demand
Steven Lanning, Lucent Technologies; W. Russell Neuman, University of Pennsylvania; Shawn O'Donnell, Massachusetts Institute of Technology

A Financial Understanding of Telecommunication Takeovers: The Effect of Takeover Characteristics on the Shareholders' Wealth
Seongcheol Kim, Dong-Woon Kim and Cho-kyoung Park, Michigan State University

Location:
Title: Universal Service: Economic Perspective
Chair: Bridger Mitchell, Charles River Associates
Papers:
Universal Service in the United States and Canada:
Funding High-Cost Areas
Timothy Tardiff, NERA and Willie Grieve, TELUS Communications Inc.
Local Access Over Analog Cellular Networks:
Implications for Universal Service Funding and Commercial Mobile Radio Service Carriers
Alan Boyer, HAI Consulting
Winners and Losers from the Universal Service Subsidy Battle
Gregory Rosston, Stanford University and Bradley Wimmer, UNLV
An Economist's Perspective on Universal Residential Telephone Service
Michael Riordan, Columbia University

12:00pm-1:30pm LUNCH
LOCATION: TERRACE BALLROOM

Conference Adjournment