

**BOARD OF DIRECTORS
26TH ANNUAL TPRC**

Walter S. Baer

Chair

RAND

Charles Firestone

Secretary/Treasurer

The Aspen Institute

Linda Garcia

Vice-Chair

Foundation for Rural Service

Heather Hudson

University of San Francisco

Jeff MacKie-Mason

University of Michigan

David Reed

CableLabs

Lisa Rosenblum

Cablevision Systems Corporation

David Waterman

Indiana University

Jorge R. Schement

(Ex-Officio)

Penn State University

**PROGRAM COMMITTEE
26TH ANNUAL TPRC**

Jorge R. Schement

Co-Chair

The Pennsylvania State University

Benjamin Compaine

Co-Chair

Harvard University

Ira Barron

US West

Erik Brynjolfsson

Massachusetts Institute of Technology
and Stanford University

Sharon Eisner Gillett

Massachusetts Institute of Technology

Robert Horwitz

University of California, San Diego

Jonathan Levy

Federal Communication Commission

Jessica Litman

Wayne State University

Luigi Prosperetti

University of Milan-Italy

Padmanabhan Srinagesh

Charles River Associates

TWENTY-SIXTH ANNUAL TELECOMMUNICATIONS
POLICY RESEARCH CONFERENCE

October 3-5, 1998

DETAILED PROGRAM

SATURDAY, OCTOBER 3, 1998

2:00pm-7:00pm

REGISTRATION

LOCATION: UPPER FOYER

TUTORIALS

LOCATION: MAGNOLIA ROOM

2:15pm-4:00pm

Internet Telephony

SPEAKERS:

Lee McKnight, Massachusetts Institute of
Technology and Tufts University

William Lehr, MIT, ITC & Columbia University

4:15pm-6:00pm

E-Commerce

SPEAKER:

Marvin Sirbu, Carnegie Mellon University

5:30pm-6:30pm

RECEPTION

HOSTED BY THE SPONSORS OF TPRC

LOCATION: OUTSIDE TERRACE

6:30pm-7:30pm

DINNER

LOCATION: TERRACE BALLROOM

7:30pm-9:00pm

OPENING SESSION

LOCATION: TERRACE BALLROOM

**Welcoming Remarks by Benjamin Compaine
and Jorge R. Schement - 26th Annual Program
Committee Co-Chair**

**Special Recognition of Colin Blackman
Retiring Editor of *Telecommunications Policy***

PRESENTORS:

Chris Sterling, George Washington University
Walter Baer, RAND

Robert Frieden, Penn State University

Heather Hudson, University of San Francisco

Eli Noam, Columbia University

SATURDAY, OCTOBER 3, 1998

(CON'T)

PLENARY SESSION: Net Heads vs. Bell Heads: Which Paradigm for Telecommunications Will Prevail?

CHAIR: Peter Harter, Netscape Communications Corp.

PANELISTS: David Clark, Massachusetts Institute of Technology
Andrew Odlyzko, AT&T Labs-Research
Stu Personick, Drexel University

SUNDAY, OCTOBER 4, 1998

7:30am-5:00pm REGISTRATION
LOCATION: LOWER FOYER

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

8:30am-10:00am SESSIONS
LOCATION: PLAZA I
SESSION: Content Controls
CHAIR: Michael Froomkin, University of Miami

PAPERS: **First Amendment's Limitations on the Use of Internet Filtering in Public Schools & Libraries**
Mark Nadel, Federal Communications Commission
Internet Control in Asia: Implications of New Media & Supranational Policy-Making
Nandini Sen, Temple University
The Architectures of Mandated Access Controls
Paul Resnick, The University of Michigan and
Larry Lessig, Harvard Law School
DISCUSSANT: Mark Lemley, University of California

SUNDAY, OCTOBER 4, 1998

8:30am-10:00am (Con't)

LOCATION: PLAZA II
SESSION: Mass Media, Old And New
CHAIR: Benjamin Compaine, Harvard University

PAPERS: **Do People Not Subscribe to Cable Television Because They Can Not Afford the Service? A Review of the Evidence**
Robert Kieschnick and Bruce McCullough, Federal Communications Commission
The Economics of American Movie Exports: An Empirical Analysis
Krishna Jayakar and David Waterman, Indiana University
Uses & Gratification's of the World-Wide Web in an Educational Context
Samuel Ebersole, University of Southern Colorado
Are American Media Becoming More Concentrated?
Eli Noam, Columbia Institute for Tele-Information

LOCATION: PLAZA III
SESSION: Infrastructure Investment
CHAIR: David Tennenhouse, DARPA/ITO

PAPERS: **Universal Access and Local Commercial Internet Markets**
Shane Greenstein, Northwestern University and Tom Downes, Tufts University
The Internet and Other Networks: Utilization Rates and Their Implications
Andrew Odlyzko, AT&T Labs-Research
Implications of Local Loop Technology for Future Industry Structure
David Clark, Massachusetts Institute of Technology
Deregulation and Reform in the Israeli Telecommunications Sector: Transition to a Competitive Industry
Neil Gandal, Tel Aviv University

SUNDAY, OCTOBER 4, 1998

8:30am-10:00am (Con't)

LOCATION: BEECH ROOM
SESSION: **Security And Trustworthiness: Can Policy Promote Progress?**
CHAIR: Marjory Blumenthal, National Research Council and Massachusetts Institute of Technology

PAPERS: **The Politics and Policies of Enhancing Trustworthiness**
Marjory Blumenthal, National Research Council and Massachusetts Institute of Technology

PANELISTS: **Critical Infrastructures You Can Trust: Where Telecommunications Fits**
Fred Schneider, Cornell University
Steven Bellovin, AT&T Labs Research
Alan Inouye, National Research Council (author not presenting)

DISCUSSANT: Charles Holland, Defense Research Engineering

10:00am-10:30am

COFFEE BREAK
LOCATION: FOYER

10:30am-12:00pm

SESSIONS
LOCATION: PLAZA I
SESSION: Privacy
CHAIR: Jessica Litman, Wayne State University

PAPERS: **Tele-Privacy: The European Union Directive on Data Protection in Telecommunications**
Viktor Mayer-Schoenberger, Kennedy School of Govt./Univ. of Vienna,
Financial Privacy: Implications of Money Laundering Law for Encryption and CALEA
Peter Swire, Ohio State University
The Architecture of Identity
Phil Agre, University of California, Los Angeles

DISCUSSANT: Michael Nelson, IBM

SUNDAY, OCTOBER 4, 1998

10:30am-12:00am (Con't)

LOCATION: PLAZA II
SESSION: Convergence: Regulatory Implications
CHAIR: Luigi Prosperetti, University of Milan-Italy

PAPERS: **Telecommunications Regulations in the United States and Europe: The Case for Centralized Authority**
William Lehr; Columbia University and Massachusetts Institute of Technology; and Thomas Kiessling, Harvard University
Convergence, Competition and Regulation
Christopher Marsden, University of Warwick and Campbell Cowie, LECG Ltd.
Asymmetric Regulation of Converging Markets: Problems, Pitfalls and Potential
Leonard Waverman; London Business School and Law & Economics Consulting Group; Marc Shankerman, London Business School; Lorenzo Pupillo, Telecom Italia
DISCUSSANT: Luigi Prosperetti, University of Milan-Italy

LOCATION: PLAZA III
SESSION: Unbundled Access
CHAIR: Daniel Kelley, HAI Consulting, Inc.

PAPERS: **So Near and Yet So Far: A Comparative Analysis of Network Unbundling and Local Competition in Canada and the U.S.A.**
Hudson Janisch, University of Toronto
Regulating Prices to Equal Forward Looking Costs: Cost-Based Prices or Price-Based Costs?
Michael Salinger, Boston University
Vertical Disintegration: Optimal Pricing for Wholesale Telecommunications Services
Douglas Meredith, University of Maryland, Ph.D. Student and John Staurulakis, Inc.
The Economics of BOC Long Distance Entry While charging Above Costs Access Rates
Gary Biglaiser; University of North Carolina, Patrick DeGraba and Michael Kende, Federal Communications Commission

SUNDAY, OCTOBER 4, 1998

10:30am-12:00am (Con't)

LOCATION: BEECH ROOM
SESSION: **The Transition To Digital TV**
Chair: Jonathan Levy, Federal Communications Commission
PAPERS: **Selling Digital Television to the Consumer – Lessons from the Computer Trenches: It's Got to be More Than Pretty Pictures**
James Burger, Dow, Lohnes & Albertson
Digital Television Developments in the Cable Industry
David Reed and Jerry Bennington, CableLabs
Surviving the Digital Chasm – The Broadcasters' Business Challenge
Nat Ostroff, Sinclair Broadcast Group, Inc.
DTV: Things to Come
Branko Gerovac, Massachusetts Institute of Technology

12:00pm-1:30pm

LUNCH
LOCATION: BALLROOM

LUNCH PLENARY: **The Proper Role Of Antitrust In 21st Century Telecom Regulation**
CHAIR: Thomas Krattenmaker, Federal Communication Commission
PANELISTS: Mike Riordan, Boston University
Larry Lessig, Harvard Law School
Howard Shelanski, Council of Economic Advisors

1:45pm-3:15pm

LOCATION:

SESSION:

CHAIR:

SESSIONS

PLAZA I

Telecommunications Act

Robert Pepper, Federal Communications
Commission

PAPERS:

**Promoting Telephone Competition: A
Simpler Way?**

Tim Brennan, University of Maryland

**The Internet and "Telecommunications
Services": Access Charges, Universal Service
Mechanisms and Other Flotsam of the
Regulatory System**

Jonathan Weinberg, Wayne State University

Dynamics of Price Regulation: I. Basic Model

Michael Riordan, Boston University and Gary
Biglaiser, University of North Carolina

**When Agencies are Captured by Experts: The
Irony of Telecommunications Reform**

D. Linda Garcia, Foundation for Rural Service

DISCUSSANT:

Robert Pepper, Federal Communications
Commission

LOCATION:

SESSION:

CHAIR:

PLAZA II

**Regulatory Experience - Developed
Countries**

Martin Cave, Brunel University

PAPERS:

**An Econometric Analysis of Institutional
Factors in Telecommunication Reform**

Gerald Brock and Yun-tsai Chou, The George
Washington University

**The New Regulatory Regime and Market
Entry in Germany**

Ernst-Olav Ruhle and Karl-Heinz Neumann, RWE
Telliance AG

**Transforming the Management of Telcos in
Australia and New Zealand**

Mark Shadur and Rene Kienzle, Queensland
University of Technology

DISCUSSANT:

Martin Cave, Brunel University

SUNDAY, OCTOBER 4, 1998

1:45pm-3:15pm (Con't)

LOCATION: PLAZA III
SESSION: IP Telephony Engineering Cost Models
CHAIR: Stagg Newman, Federal Communications Commission

PAPERS:

Internet Telephony or Circuit Switched Telephony: Which is Cheaper?
Martin Weiss and Junseok Hwang, University of Pittsburgh

Cost-Engineering Model of IP Telephony on Corporate Intranet
Wei Deng, Carnegie Mellon University, Ph.D. Student

IP-Based Residential Network: An Economic and Public Policy Analysis
Kanchana Wanichkorn, Daniel Fryxell and Marvin Sirbu, Carnegie Mellon University

LOCATION: BEECH ROOM
SESSION: Electronic Commerce
CHAIR: Nicholas Economides, New York University

PAPERS:

The Social Cost of Cheap Pseudonyms: Fostering Cooperation on the Internet
Paul Resnick, University of Michigan and Eric Friedman, Rutgers University

Public vs. Private Networks: The Effect on Market Structures in Electronic Commerce
Alice Chan, Cornell University; Charles Steinfield, Michigan State University and Robert Kraut, Carnegie Mellon University

Bundling and Competition on the Internet
Yannis Bakos, New York University and Erik Brynjolfsson, Massachusetts Institute of Technology and Stanford University

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

3:45pm-5:15pm

LOCATION:

SESSION:

CHAIR:

SESSIONS

PLAZA I

States

Richard Taylor, Penn State University

PAPERS:

**Interconnection Pricing and Competition in
Local Telephone and Internet**

Carolyn Gideon, Harvard University

Determining the Rules of the Game:

Regulatory Regime Adoption in the U.S.

Telecommunications Industry

James Dewey, University of Florida

Spectrum Auctions, the Telecommunication

**Act of 1996 and Local Governments' "Wireless
Telecommunication Policies"**

Seongcheol Kim and Thomas Muth, Michigan State
University

**ADSL Deployment: Law, Economics and
Strategy**

David Pearah, Massachusetts Institute of
Technology

LOCATION:

SESSION:

CHAIR:

PLAZA II

Internet And Telephone Numbers And Names

Sharon Eisner Gillett, Massachusetts Institute of
Technology

PAPERS:

**Funding Models for AIN-Based Local Number
Portability**

Martin Weiss and Douglas Sicker, University of
Pittsburgh

Economic Analysis of Address Portability

Bridger Mitchell and Padmanabhan Srinagesh,
Charles River Associates

**Trademarks and Domain Names: Property
Rights and Institutional Evolution in
Cyberspace**

Milton Mueller, Syracuse University

DISCUSSANT:

David Farber, University of Pennsylvania

SUNDAY, OCTOBER 4, 1998

3:45pm-5:15pm (Con't)

LOCATION: PLAZA III
SESSION: Software Competition
CHAIR: Glenn Woroch, University of California, Berkeley

PAPERS:

Durable Goods Monopoly with Network Externalities with Application to the PC Operating Systems Market
Nicholas Economides, New York University

Strategic Coordination Between Hardware and Software Producers in the Presence of Network Externalities
Sangin Park, SUNY at Stony Brook

Effecting a Price Squeeze Through Bundled Pricing
Steve Wildman, Northwestern University and Debra Aron, LECG

Influencing Software Usage
Lorrie Faith Cranor and Rebecca Wright, AT&T Labs-Research

LOCATION: BEECH ROOM
SESSION: Social Issues In Universal Service
CHAIR: Loy Singleton, University of Alabama

PAPERS:

Universalizing Universal Service Obligation: A European Perspective
Barbara Bardzki, Glasgow Caledonian University and John Taylor

From Welfare to Innovation: Toward a New Rationale for Universal Service
Francois Bar, Stanford University and Annemarie Munk Riis, Copenhagen Business School

The Persistent Gap in Telecommunications: Toward Hypotheses and Answers
Jorge Reina Schement and Scott Forbes, Penn State University

Without Public Peer: The Potential Regulatory and Universal Service Consequences of Internet Balkanization
Robert Frieden, Pennsylvania State University

DINNER INFORMATION

**LOCATION: FRONT UPSTAIR FOYER BY
FRONT DOORS**

6:00pm

BUSES BEGIN LOADING

***DINNER WILL BE AT THE FISH MARKET
IN OLD TOWN ALEXANDRIA***

6:30pm

**LAST BUS LEAVES FROM RADISSON TO
FISH MARKET**

9:00pm

**1st RETURN BUS FROM DESIGNATED
PICK UP SPOT IN OLD TOWN RETURN
TO RADISSON**

10:30pm

**2nd RETURN BUS FROM DESIGNATED
PICK UP SPOT IN OLD TOWN RETURN
TO RADISSON**

12:00am*

**FINAL RETURN BUS FROM DESIGNATED
PICK UP SPOT IN OLD TOWN RETURN
TO RADISSON**

**If 12:00am bus is missed you must return to Radisson on your own.*

***PLEASE NOTE TIME CHANGES FOR MONDAY SCHEDULE FROM
PREVIOUS YEARS.***

PLEASE NOTE TIME CHANGES FOR MONDAY SCHEDULE FROM PREVIOUS YEARS.

MONDAY, OCTOBER 5, 1998

7:30am-12:00pm

**REGISTRATION
LOCATION: LOWER FOYER**

7:00am-8:00am

**BREAKFAST
LOCATION: TERRACE BALLROOM**

8:00am-9:30am

LOCATION:

SESSION:

CHAIR:

**SESSIONS
PLAZA I
Telecoms Reform In Developing Countries
Patricia Aufderheide, American University**

PAPERS:

**Advanced IT Markets in Backward Countries:
Where Do They Come From?**

Ernest Wilson, University of Maryland

**Policy Design for Telecom Infrastructure
Growth: Competition as a Tool for Network
Expansion**

Anupama Dokeniya and William Melody, Delft
University of Technology

**"Peripheral Realism" Communications Policy
in Brazil**

Venicio A. de Lima, Universidade de Brasilia

GII Project Initiatives: A Critical Assessment

Heather Hudson, University of San Francisco

MONDAY, OCTOBER 5, 1998

8:00am-9:30am (Con't)

LOCATION: PLAZA II
SESSION: Economic Analysis Of Universal Service
CHAIR: Bridger Mitchell, Charles River Associates

PAPERS: **Using Cost Proxy Models to Analyze Universal Service Funding Options**
PB Schechter, Colorado Office of Consumer Counsel
Proxy Models and the Funding of Universal Service
David Gabel, Queens College and Scott Kennedy
Some Economics of COLR (Carrier of Last Resort) Auctions
Valter Sorana, Stanford University
The Cost of the Local Telecommunications Network: A Comparison of Minimum Spanning Trees and the HAI Model
Christian Dippon; National Economic Research Assoc., and Kenneth Train; University of California, Berkeley and National Economic Research Assoc.
DISCUSSANT: Ingo Vogelsang, Boston University

LOCATION: PLAZA III
SESSION: Antitrust Concerns In Network Industries
CHAIR: John Woodbury, Charles River Associates

PAPERS: **Why Aren't The RBOC's Entering the Local and Long-distance Markets Outside of Their Incumbent Territories?**
Susan McMaster, EconOne Research
Regulating Anti-competitive Behavior in the Internet Market: An Applied Imputation Model for Developing Countries, the Case of Peru
Arturo Briceno, OSIPTEL
Competitive Incentives in Vertical Mergers
Jane Murdoch, Charles River Associates, Inc.

9:30am-9:40am

COFFEE BREAK
LOCATION: FOYER

MONDAY, OCTOBER 5, 1998

9:40am-11:10am

SESSIONS

LOCATION:

BEECH ROOM

SESSION:

The Federal Policy Research Agenda

CHAIR:

Brian Kahin, White House Office of Science & Technology Policy

PANEL:

Becky Burr, National Telecommunications & Information Admin.
Bennett Bertenthal, National Science Foundation
Kathryn Brown, Federal Communications Commission
Christopher Kelly, Department of Justice
Susan Desanti, Federal Trade Commission

11:10am-11:30am

COFFEE BREAK
LOCATION: FOYER

11:30am-1:00pm

SESSIONS

LOCATION:

PLAZA I

SESSION:

Intellectual Property

CHAIR:

Wendy Gordon, Boston University

PAPERS:

Shared Information Goods

Douglas Lichtman; University of Chicago , Erik Brynjolfsson, Massachusetts Institute of Technology and Stanford University and Yannis Bakos, New York University

The Commons as a Neglected Factor of Information Policy

Yochai Benkler, New York University

Copyright Law and Price Discrimination

Michael Meurer, Boston Univ. and SUNY at Buffalo

DISCUSSANT:

Ken Carter, CITI

MONDAY, OCTOBER 5, 1998

11:30am-1:00pm (Con't)

LOCATION: PLAZA II

SESSION: Inter/Intranet: Effect On Organizations And Industry

CHAIR: Jeff MacKie-Mason, University of Michigan

PAPERS: Internet Price Discrimination: Self-Regulation, Public Policy, and Global Electronic Commerce
Joseph Bailey, University of Maryland
The Impact of Settlement Issues on Business Evolution in the Internet
Sanford Marble, Bellcore
Intranets and Organizational Change: The Evolutionary Deployment of Corporate Information Infrastructure
Francois Bar and Neil Kane, Stanford University

LOCATION: PLAZA III

SESSION: Spectrum Allocation And Auctions

CHAIR: Evan Kwerel, Federal Communications Commission

PAPERS: Collusive Bidding: Lessons from the FCC Spectrum Auctions
Peter Cramton and Jesse Schwartz, University of Maryland
Combination Bidding in Spectrum Auctions
Paul Milgrom, Stanford University
DISCUSSANT: Gregory Rosston, Stanford University

1:00pm-2:00pm

LUNCH

LOCATION: BALLROOM