MIT Communications Futures Program

Every sector of the economy and all aspects of society now depend on communications. Conversely, our communications systems designs impact every dimension of our lives.

Overview

- Our vision is to build guiding theories about how communications will work for people and industry. Our means is *roadmapping – exploring and analyzing the options and their impact*

- The CFP is a partnership between university and industry.

- Our industry partners include:

  Cisco
  Comcast
  NBCU
  Nokia Siemens Networks
  Samsung
  Telecom Italia
  and all of you

Leadership

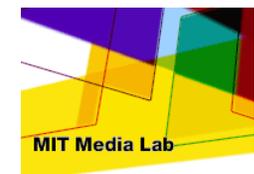An interdisciplinary team from MIT heads the program

- Charles Fine, Chrysler LFM Professor, MIT Sloan School of Management

- David Clark, Senior Research Scientist, MIT Computer Science and Artificial Intelligence Laboratory

- Andrew Lippman, Senior Research Scientist, MIT Media Laboratory

Charles Fine

David Clark

Andy Lippman

The Evolving Agenda

- **The Communications Industry**

  - Regulatory struggles: spectrum, privacy, security

  - Operational structures: potential wireline monopoly, value chain disruptions

- **Beyond Stakeholders**

  - Integration with physical design, energy, cities, mobility, enterprises

  - Migration to proprietary apps; viral apps

- **International**

  - Role of emerging nations

  - Big Data: in scope and in realtime

Operations

Working Groups

- Industry participants engage closely with faculty in the research and provide valuable input into the direction and content of the program.
- Co-chaired by faculty and industry sponsors.
- Groups are launched as new issues emerge and disbanded as issues become less relevant or research is completed.
- Regular meetings (face-to-face and/or concall)

Member meetings

- Plenaries plus workshops
- Held at MIT & member locations
- Working group reporting, guest speakers, workshops

Research

- All research (papers & presentations) are available exclusively to CFP members on our Web site: http://cfp.mit.edu

Current Working Groups

Value Chain Dynamics
Charlie Fine & Natalie Klym

- Examine new business models

Viral Spaces
Andy Lippman

- Invent and prototype scalable, user-designed communications systems with no centralized infrastructure or management

Privacy and Security
Karen Sollins

- Examine the value of authenticated identity inside the network

Interconnection
Bill Lehr

- Analyze interconnection issues in NexGen multi-provider networks including overlays and peering

CFP Value

- **Insight and analysis:** MIT researchers develop ideas in collaboration with our industry partners. We carry these through to create models and detailed analyses.

- **Exchange of ideas among academia and industry:** Our members have the opportunity to workshop specific issues they are grappling with inside their organizations with the larger group. This makes CFP an ideal place to test new ideas.

- **Validation:** The ideas developed through CFP activities are captured in papers that our member participants can distribute internally.

- **Social networking:** Through our various meetings, our members have the opportunity to connect with academics, policy makers, and industry peers.

What our members have to say…

The CFP has created a valuable and unique forum for the exchange of ideas and developments between industry representatives and recognized academic masterminds. The program has led to deep research and a rich set of tools to help bring CFP ideas inside corporations.

– Dirk Trossen, BT Research

The CFP provides us, for the first time, with an examination of technology innovation that intersects with business innovation. The combined participation of industry and academia directly benefits the analysis of the complex scenarios faced by the telecommunications industry today. The ideas and results of the CFP provide valuable input to our internal discussions on our firm's strategic direction.

– Roberto Saracco, Telecom Italia

The ideas generated in the CFP are a major source of validation for internal projects. The consensus of the group has enormous power.

– Marie Jose Montpetit, Motorola

Membership

Full Membership

- $200K/year ($100K if you are an existing Media Lab sponsor)
- Unlimited participation at CFP events
- Unlimited participation in working groups
- One-on-one interaction with faculty members
- Affiliate member status of the Media Lab
- Limited IP access

Introductory Membership

- For those who would like to learn more about the CFP and its work, we offer a one-year introductory membership
- $60K for the first year
- Participation is limited

Associate Membership

- For small companies we offer a discount.

Contact information

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For more information about the program please contact our Executive Director, Natalie Klym at nklym@cfp.mit.edu.

For administrative assistance, please contact Sue Perez at susanperez@csail.mit.edu

Directions to MIT
Map of MIT
http://whereis.mit.edu/map-jpg
Getting to MIT
See http://cfp.mit.edu/contact/directions.html

Today's workshop

CFP Presentations

- Future of the Internet, Dave Clark

- Privacy: Issues and Models, Karen Sollins

- The Incumbent's Dilemma: Which Disruptions Matter? Charlie Fine

- Proximal networking: Rewriting the Rules of Wireless, Andy Lippman

Open discussion: Other research opportunities