



# MIT Communications Futures Program

*A cross-cutting examination of the  
telecommunications industry*



**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

ESPN

NBCU

Nokia Solutions and Networks

Telecom Italia

TV Globo

# Leadership

An interdisciplinary team from MIT heads the program

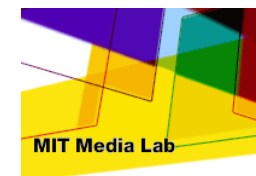
- Charles Fine, Chrysler LFM Professor, MIT Sloan School of Management
- David Clark, Senior Research Scientist, MIT Computer Science and Artificial Intelligence Laboratory
- Andrew Lippman, Senior Research Scientist, MIT Media Laboratory



Charles Fine



David Clark



Andy Lippman

# 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

## **Mobile Broadband**

*David Clark & Bill Lehr*

- Examine broadband value chain and ISP economics, new pricing models, and engineering for efficiency.

## **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

## **Viral Spaces**

*Andy Lippman*

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

# 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



# 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**

- \$100K annually
- Unlimited participation at CFP events
- Unlimited participation in working groups
- One-on-one interaction with faculty members
- Limited IP access

# Contact information

## **Communications Futures Program**

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For more information about the program please contact our Executive Director, Natalie Klym at [nklym@cfp.mit.edu](mailto:nklym@cfp.mit.edu).

For administrative assistance, please contact Sue Perez at [susanperez@csail.mit.edu](mailto: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>