

**Television Reloaded:
“We apologize for the Disruption, . . .”**

Professor Charles Fine, MIT Sloan School

**With collaboration of
Natalie Klym, David Clark, Andrew Lippman**

**MIT
Communications Futures Program**

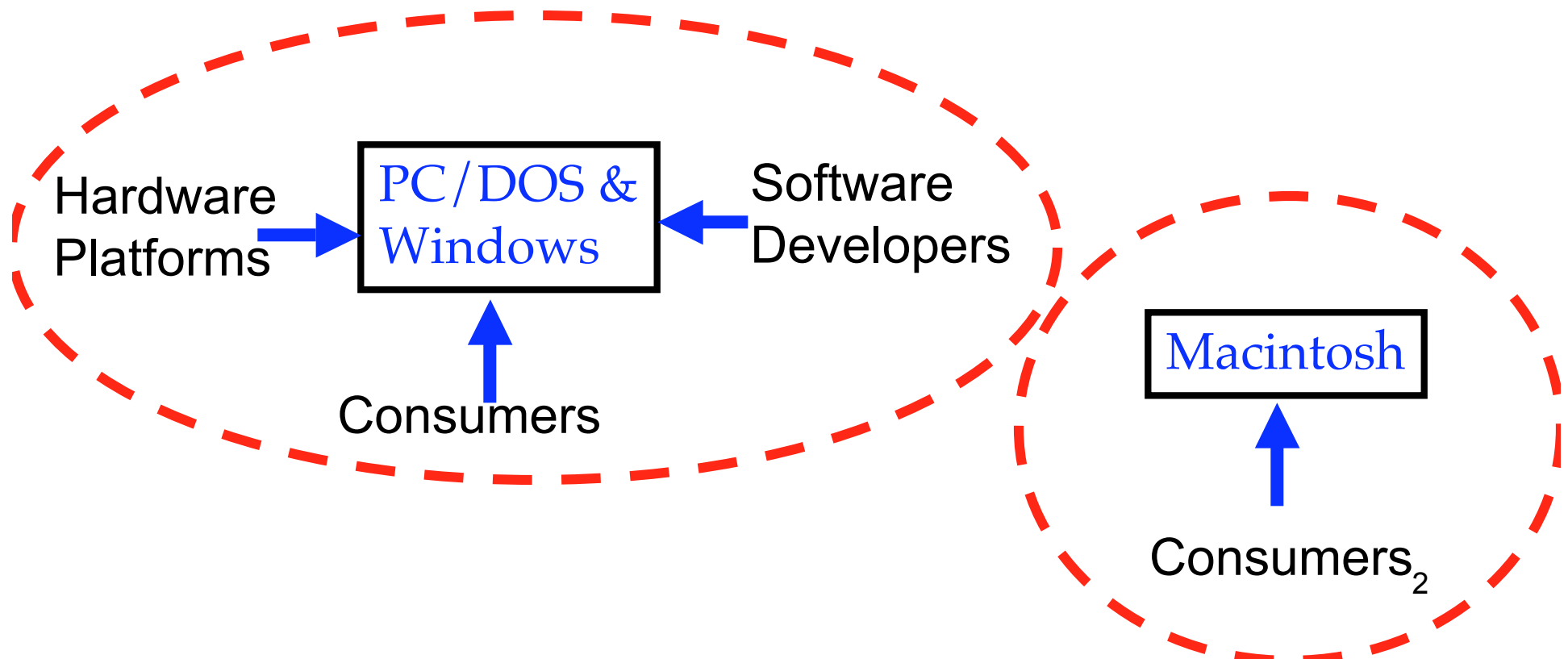
April 2009

<http://cfp.mit.edu>

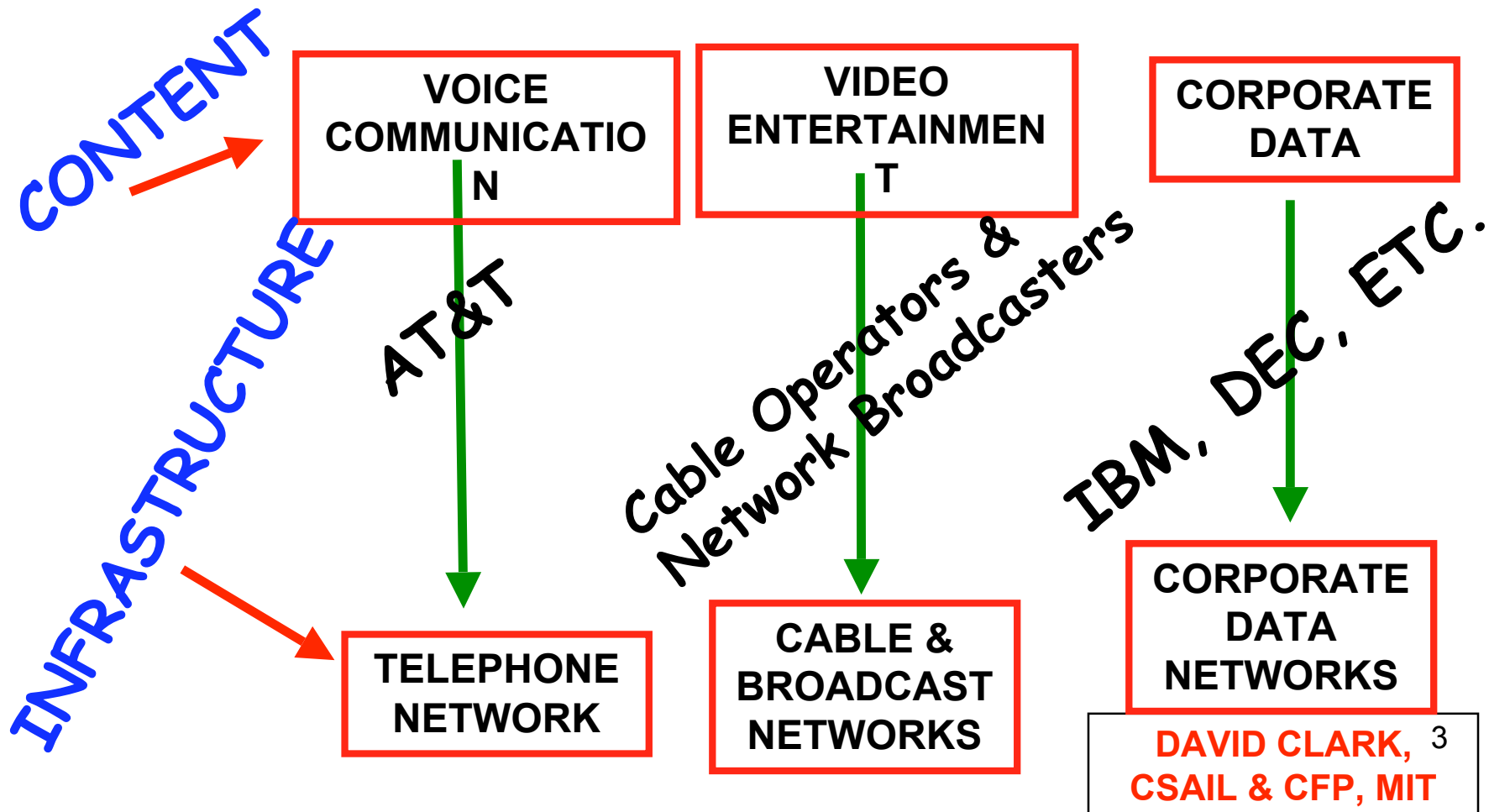
DISRUPTION IN COMPUTING: THE COMPUTER IS PERSONAL

***ROUND 1: THE THREE-SIDED PLATFORM OF GATES BEATS THE
ONE-SIDED PLATFORM OF JOBS***

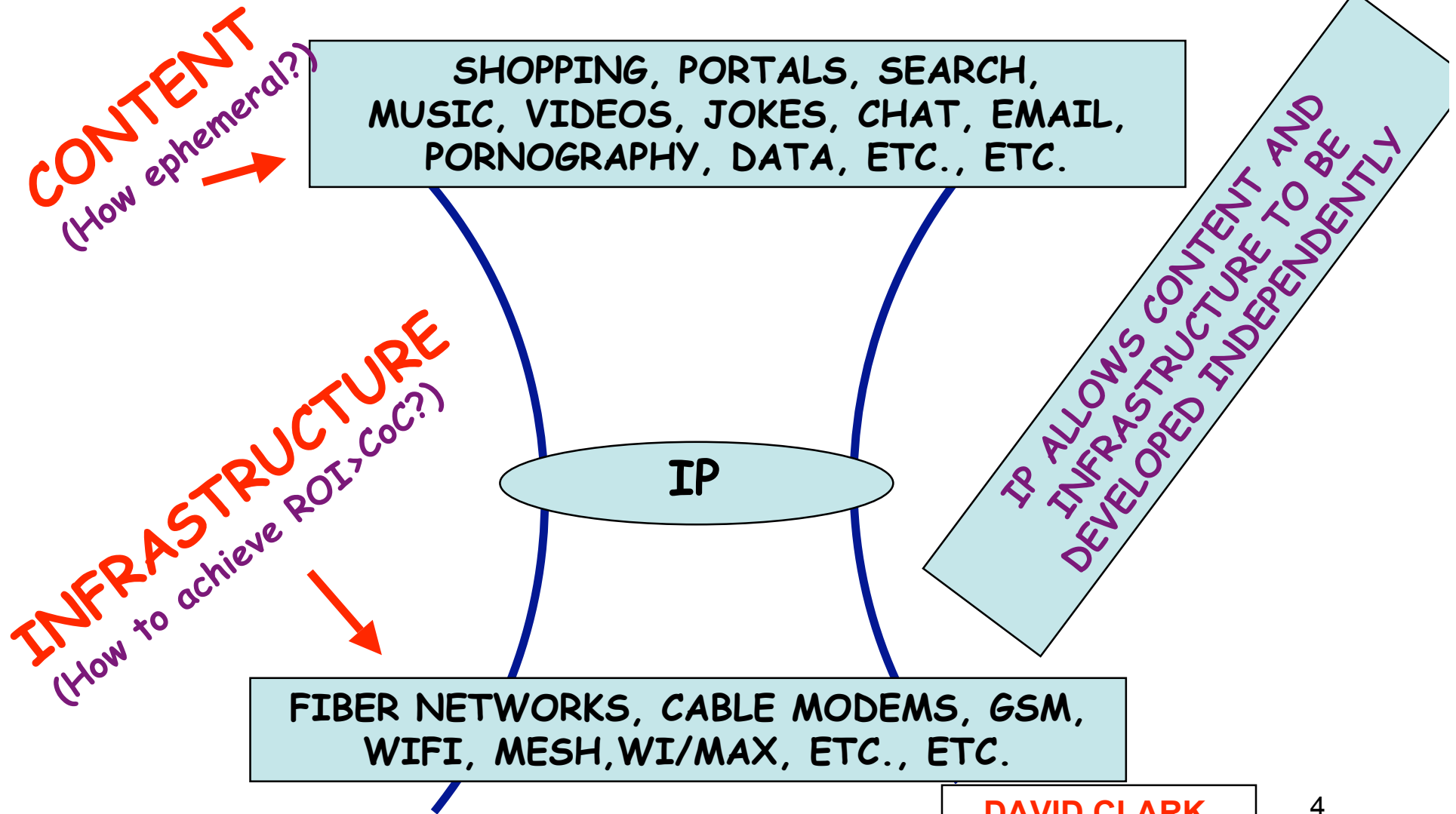
OPEN TRUMPS CLOSED ?



DISRUPTION IN NETWORKING: THE INTERNET IS OPEN & UBIQUITOUS; VERTICAL INTEGRATION BOWS OUT



DISRUPTION IN NETWORKING: TCP/IP PRESENTS ... THE HOURGLASS



DAVID CLARK,
CSAIL & CFP, MIT

Disruption in Value Chains: Value Capture is Fleeting . . .

1970's

IBM
AT&T
NBC
Sony

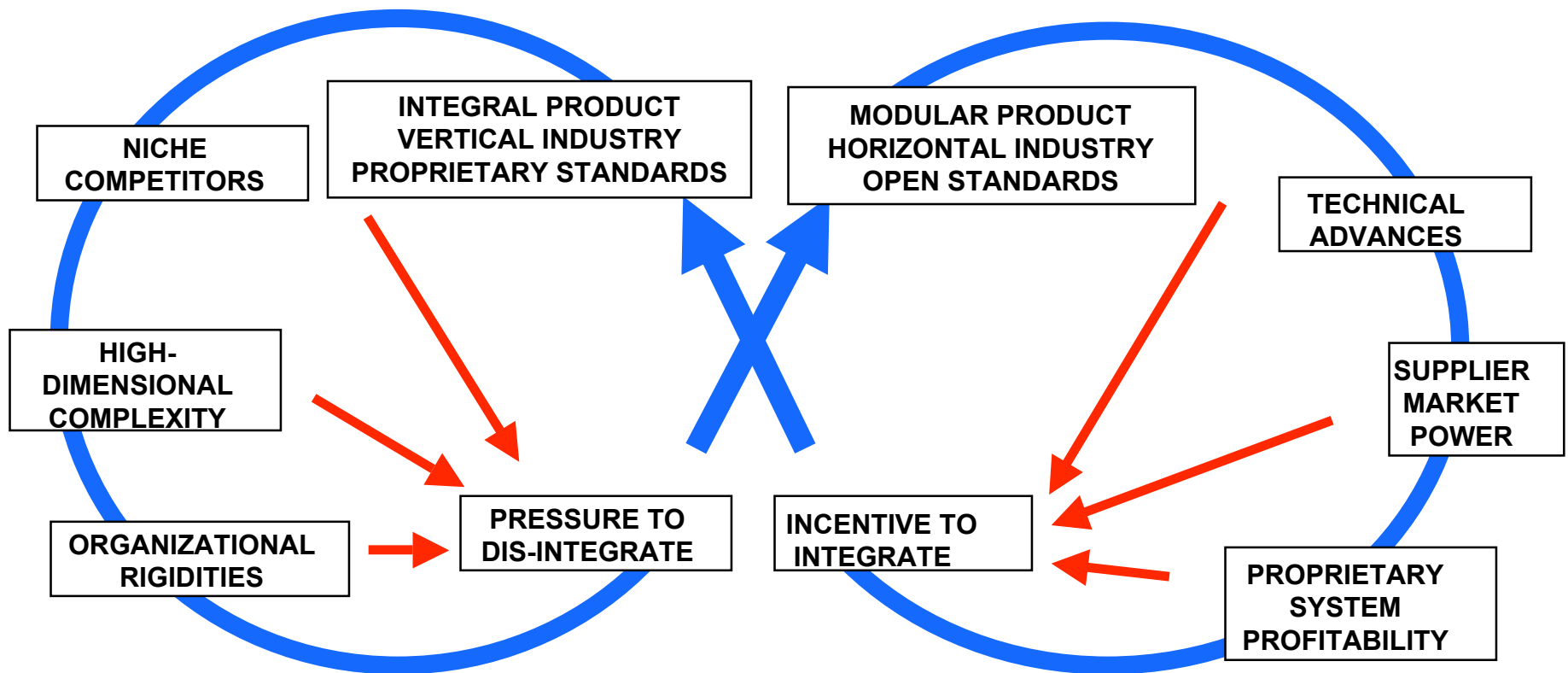
Late 1990's

Microsoft
Intel
Dell
Nokia
Comcast
eBay
Cisco
Yahoo
AOL
Corning

2010

Apple
Google
Cisco
Brad Pitt
Kobe Bryant
ESPN
James Cameron

THE DYNAMICS OF PRODUCT ARCHITECTURE STANDARDS, AND VALUE CHAIN STRUCTURE: **THE DOUBLE HELIX**



Fine & Whitney, "Is the Make/Buy Decision Process a Core Competence?"

What is Value Chain Dynamics?

ALL COMPETITIVE ADVANTAGE IS TEMPORARY

Autos:

Ford in 1920, *GM* in 1955, *Toyota* in 2000

Computing:

IBM in 1970, *Wintel* in 1990, *Apple* in 2010,

World Dominion:

Greece in 500 BC, *Rome* in 100AD, *G.B.* in 1800

Sports:

Red Sox in 2007, *Celtics* in 2008, *Yankees* in 2009

The faster the clockspeed, the shorter the reign

Disruption in Media Monetization: *Is content control a fool's errand?*

Music:

**A Thousand songs in your pocket;
Three of them paid for.**

News:

**My news from Google;
My ads on Craigslist.**

Movies:

Turn on the Torrent.

. . .

*Disruption in Intelligence;
Whose pipes you calling “dumb?”*

**The great fear of carriers:
Commoditized Pipes**

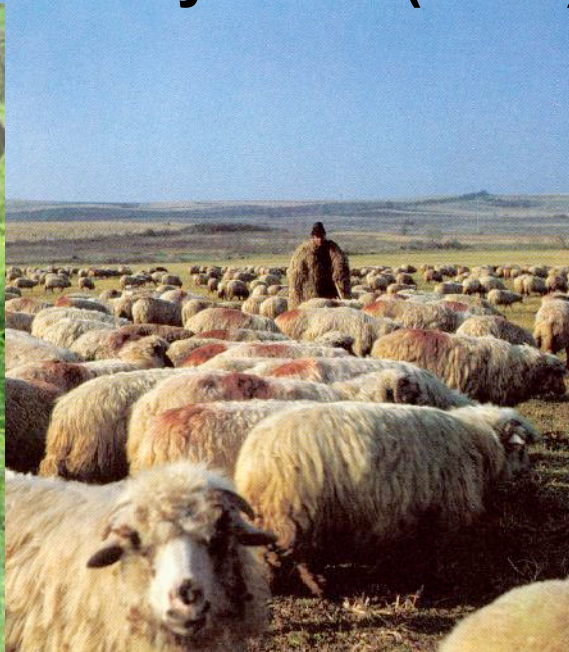


Disruption in Regulation; herding cats is tougher than caging an elephant

AT&T (1970)



Baby Bells (1990)



Multi-mode (2010)

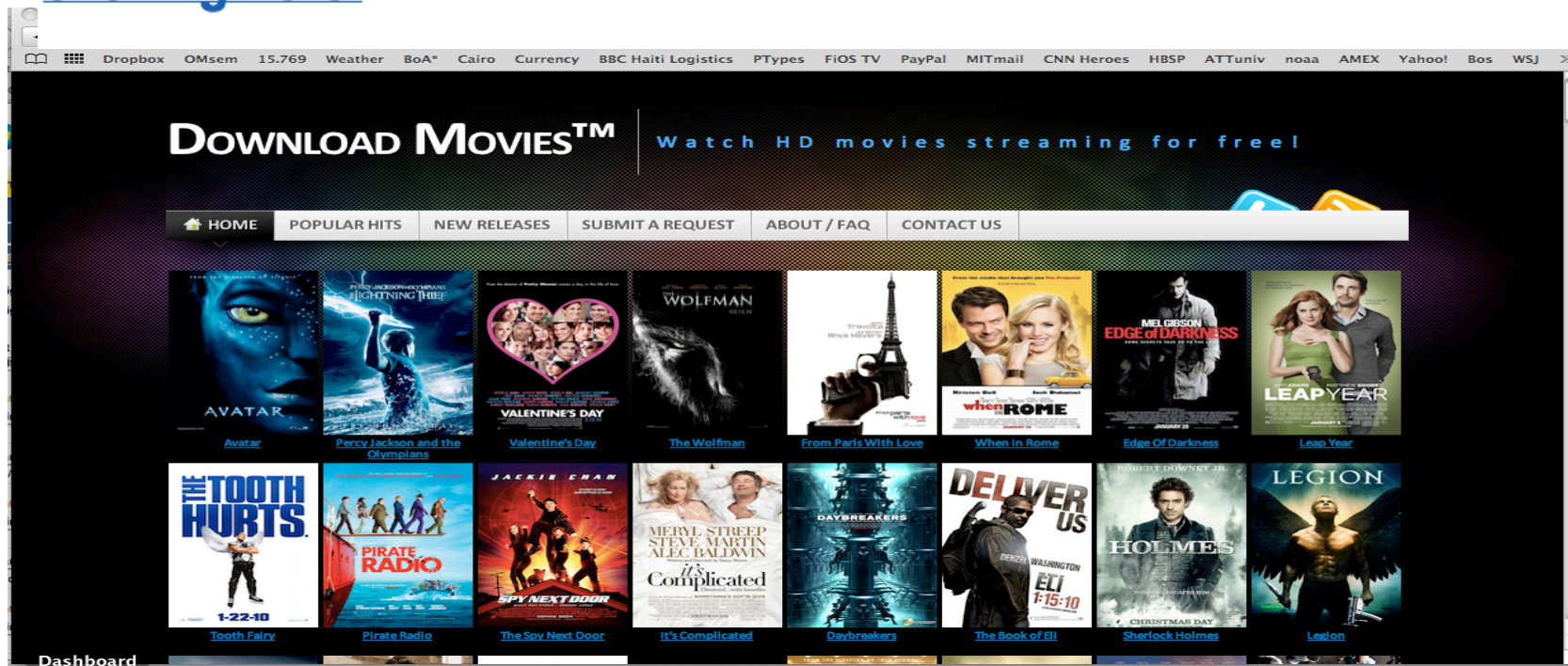


Chintan Vaishnav, PhD Thesis, MIT CFP 2009.

Disruption in Consumer & IP Protection: *one phish, two phish; spam phish, screw phish*

From: noreply@message.myspace.com
Date: April 8, 2010 2:37:41 PM EST
To: charley@mit.edu
Subject: Get Free Movies now!

Get free movies now. All titles available in HD. Download the free software now by [clicking here.](#)



Disruption in Eyeball Monetization; glue ads to content

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Results 1 - 10 of about 509,000,000 for movies [\[definition\]](#). (0.15 seconds)

[Showtimes for Cambridge, MA](#) - [Change location](#)



[Date Night](#) - 1hr 28min - Rated PG-13 - Comedy - [Trailer](#) - [Reviews](#): ☆☆☆☆

[The Last Song](#) - 1hr 47min - Rated PG - Drama - [Trailer](#) - [Reviews](#): ★★★☆☆

[Clash of the Titans](#) - 1hr 50min - Rated PG-13 - Action/Adventure - [Trailer](#) - [Reviews](#): ☆☆☆☆

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"Killers"! Out 6/4. See The Trailer
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**Disruption in Consumer Experience;
Apple seduces with “velvet handcuffs”**

Creative Artists

Applications

Networks

Content

Content Publishers

Content Marketing

iTunes homepage

Content Sales

iTunes

Content Distrib.

iTunes

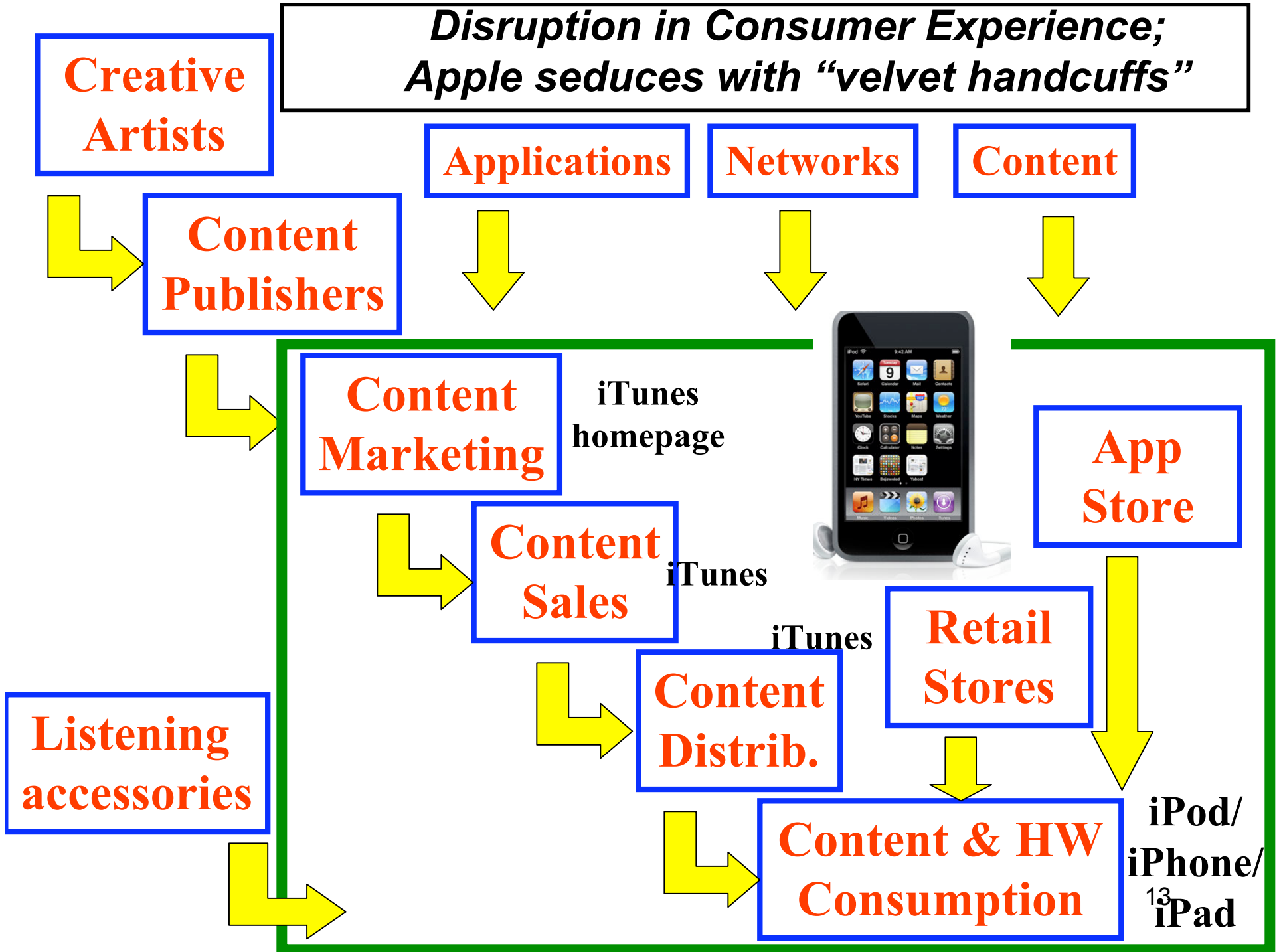
Listening accessories

Retail Stores

Content & HW Consumption

iPod/
iPhone/
iPad

App Store



Genius Recommendations for Apps



Disruption in Social Networking; friends don't let friends watch alone

Netflix + Facebook Connect

- Facebook Connect supplements Netflix's own social network
 - Netflix ratings show up on Facebook
 - Facebook users comment or link to Netflix to add movies to their queue or watch instantly

NETFLIX Jane Queue | Your Account | Buy / Redeem Gift | Help

Browse DVDs Watch Instantly Your Queue Movies You'll Instantly to your TV

Share your Netflix movie ratings on Facebook.

Rate movies on Netflix by clicking stars.

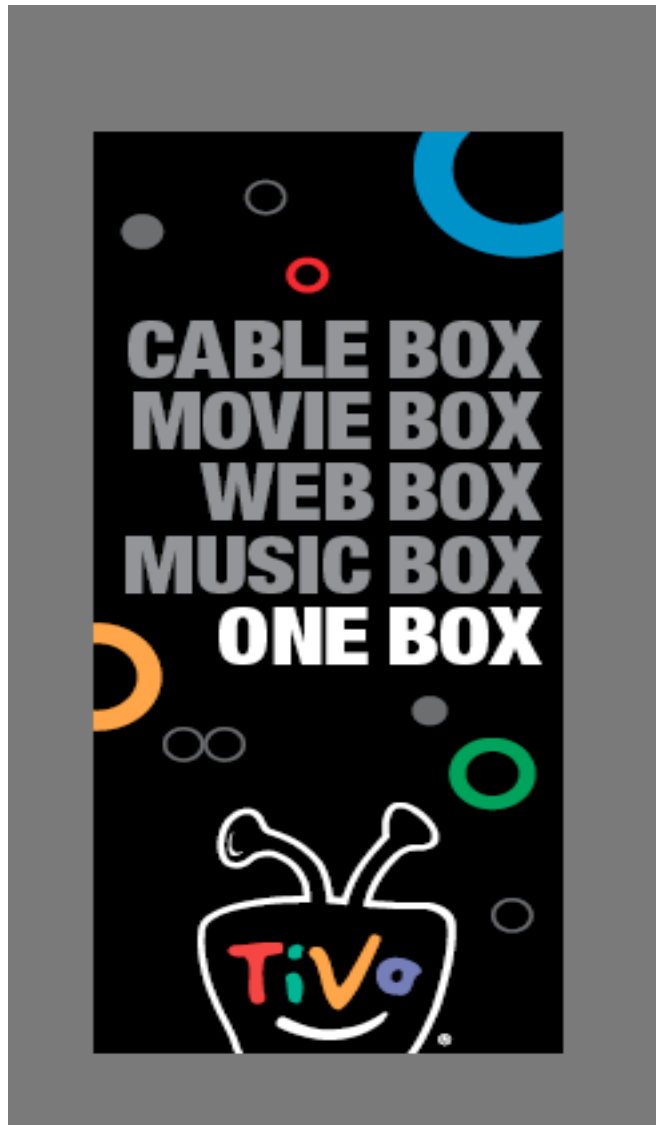
Ratings appear on your Wall and your friends' News Feeds.

Click the button to connect your Netflix account to Facebook: [Connect with Facebook](#)

You are logged into Facebook as Jane Queue. [\(Not you?\)](#)


**Natalie Klym
and Marie Jose
Montpetit, MIT CFP**

Disruption in Storage & Time Shifting; *what I want; when I want; where I want*



Disruption in Content Production: *webcams & flips r' us*

SHOOT SHARE SHOP SEE SUPPORT




Learn what's new.

Here are some of the latest updates we've added to FlipShare.


More Sharing

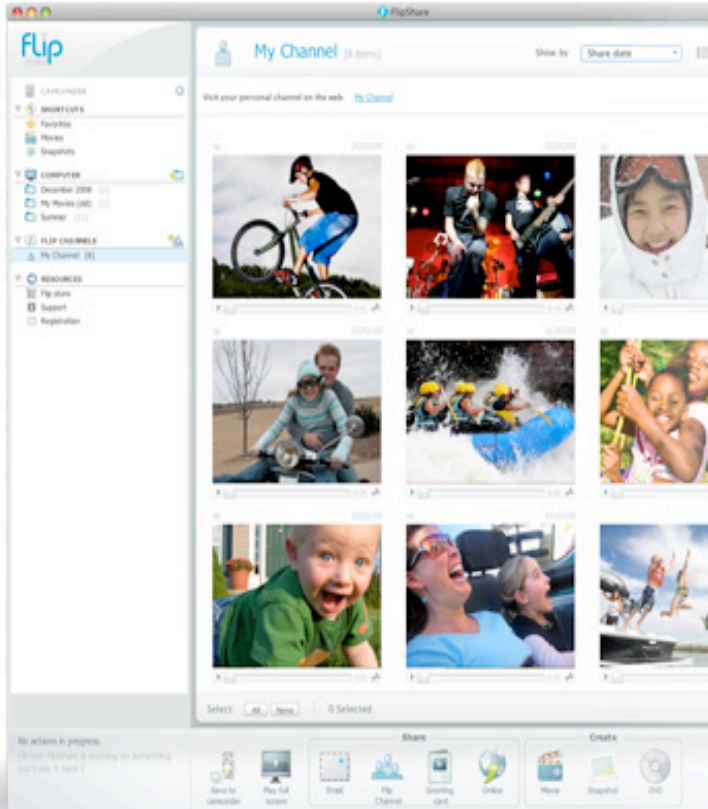
Now you can upload videos directly to Facebook.



Flip Channel

Share your favorite videos privately with groups of friends or family.






The screenshot shows the FlipShare website interface. At the top, there's a navigation bar with 'SHOOT', 'SHARE', 'SHOP', 'SEE', and 'SUPPORT' buttons. Below that, the 'Flip video.' logo is on the left. The main content area features a 'Learn what's new.' section with text about updates, a 'More Sharing' section with a Facebook logo, and a 'Flip Channel' section with an icon of a group of people. On the right, there's a 'My Channel' page with a grid of video thumbnails. The thumbnails show various activities like a person on a bicycle, a person playing guitar, a person in a winter hat, a person on a motorcycle, a person in a boat, a person holding a camera, a person in a green shirt, a person in a car, and a person jumping. At the bottom of the screenshot, there's a 'No actions in progress' message and a row of icons for 'Share to Facebook', 'Post to screen', 'Email', 'My Channel', 'Streaming List', 'Share', 'Voice', 'Support', and 'Help'.

Disruption in Control: it's my tube now.

 it's your media
enjoy it anywhere


[Log in](#)

[enjoying your media](#)
[sharing your media](#)
[how it works](#)
[screenshots](#)
[download](#)

sharing your media

share by:

music



videos



photos



documents



Drag and drop it's
that simple



email



**URL, RSS,
text message**



**Flash widget on
your blog**



**Your free Orb
public page**





Your friends receive an email: with their Orb FREE account, they are the only ones to see what you shared with them!
Your media is served by your PC: safe, secure
No more big file attachments hassles!

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- a. **Disruption in Computing; devices are personal**
- b. **Disruption in Networks; connectivity is ubiquitous**
- c. **Disruption in Value Chains; value capture is fleeting**
- d. **Disruption in Media Monetization: content control is a fool's errand**
- e. **Disruption in Intelligence; whose pipes you calling "dumb?"**
- f. **Disruption in Regulation; herding cats is tougher than caging an elephant**
- g. **Disruption in Consumer & IP Protection: one phish, two phish; spam phish, screw phish**
- h. **Disruption in Eyeball Monetization; glue ads to content**
- i. **Disruption in Consumer Experience; seduce with "velvet handcuffs" (ref G. Hamel, WSJ)**
- j. **Disruption in Software Distribution; "There's An App For That"**
- k. **Disruption in Social Networking; friends don't let friends watch alone**
- l. **Disruption in Storage & Time Shifting; what I want; when I want; where I want**
- m. **Disruption in Content Production: webcams & flips r' us**
- n. **Disruption in Control: it's my tube now.**

**So, with all this disruption going on,
what's the best strategy?**

Where do you want to be in the value chain?

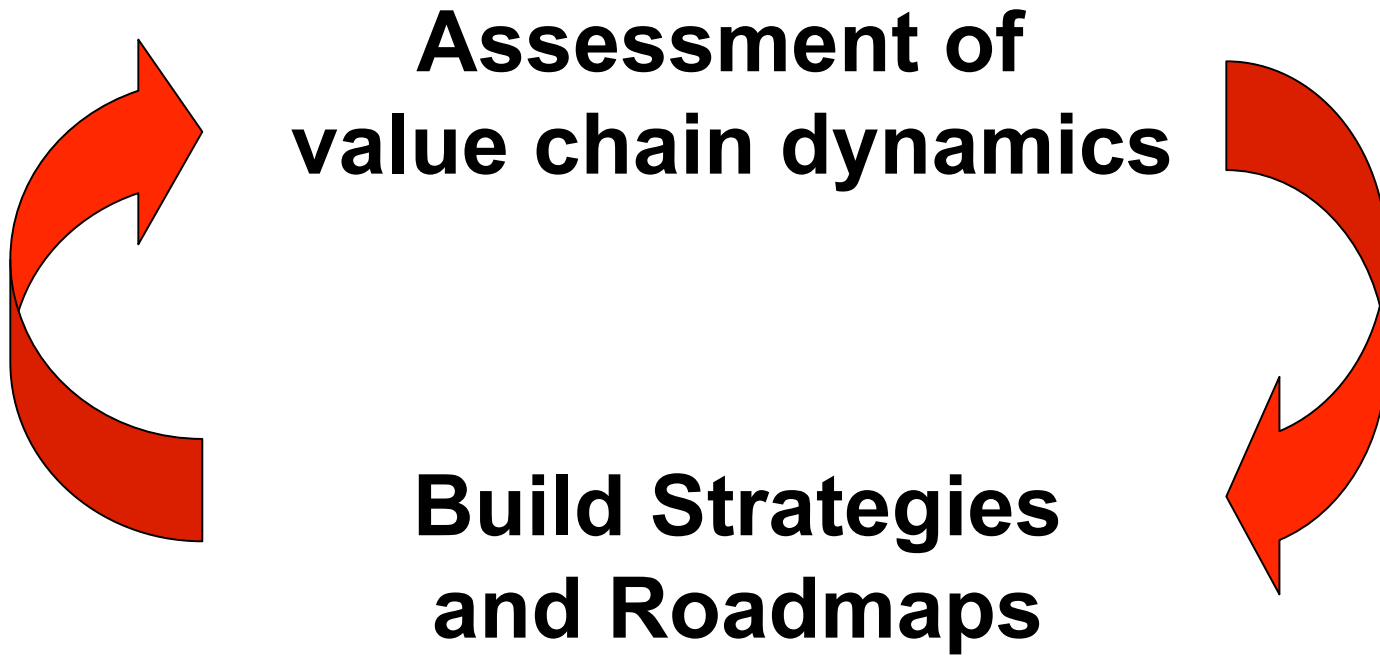
Scenario Possibilities

- #1: Content is king –
- #2: Broadcaster is king-
- #3: Aggregator is King
- #4: Distributor is King
- #5: Customer is King
- #6: Producer is King
- #7: Advertising Platform is King
- #8: Killer device is King
- #9: Network is dumb pipe?

Adapted from Emmanuel Blain, MS thesis, MIT CFP 2010

All Conclusions are *Temporary*

Clockspeeds are increasing almost everywhere
Value Chains are changing rapidly



Television Reloaded: Convergence, Collisions, Co-Evolution

Part I: In the Beginning there was Darkness . . . , then Black & White . . . , then Vertical Integration, then Technicolor, then CNN, then YouTube on iPhone

1. The Wizard of DOS

- a. *How the PC & Gates won the (three-sided) standards war*
- b. *When open trumps closed – and when not*
- c. *The PC as a platform for computing, communications, innovation, . . . and television*

2. CyberSpace: The Final Frontier

- a. *Packets & Routers vs. Circuits & Switches*
- b. *Convergence and The Internet Hourglass*
- c. *Cable Push vs. Viewer Pull*
- d. *The Broadband Incentive problem*

3. Journey to the Center of the Net

- a. *Core-Edge Dynamics*
- b. *Value Chain Dynamics*
- c. *Business Model Collisions*

Part II: “For the locusts covered the face of the whole Earth; and they did eat every herb of the land and all the fruit of the trees”

4. The Tortoise and the Internet Startup –

- a. **Disruption dynamics; Innovation Dynamics**
- b. **Legacy Telecom and Old Media**
- c. **Attack of the Killers oIPs**
- d. **are no match for the myriad of new entrants enabled by the Web; case studies of interesting startups and failing oldsters; Innovation dynamics**

5. Green Eggs and Spam –

- a. **The “bad guys” and the Dark Side of the Internet & Openness
(one phish, two phish; bait phish, screw phish)**
- b. **The role of governments, laws, courts**

6. Ali-Baba and the 40 million downloaders –

- a. **the story of digital music – from napster to apple**
- b. **The stories of books and newspapers;**
- c. **perspectives of content owners vs pipe owners vs users**

7. David becomes Googliath –

- a. **rise of Google and impacts on the media/communications landscape;**
- b. **role of advertising as payor;**
- c. **Youtube and user-generated content;**
- d. **Maps, location, and Privacy**

Part III: “I will deliver them to the land flowing with milk and honey”

8. King Kong vs Jobszilla –

- a. Competition delivers value to consumers;***
- b. The iPhone/iPad story & leveraging of the Apple platform;***
- c. The user experience and Apple’s “velvet handcuffs”;***
- d. revisiting openness vs closedness***

9. Planet of the Apps –

- a. App stores and the app culture***

10. The Mickey Mouse Club

- a. FaceBook and Social Networking***
- b. Facebook TV***
- c. Friends as Aggregators***

11. Thanks for the Memories –

- a. I want a copy of everything vs. streaming from the clouds;***
- b. TiVo, in the value chain***
- c. Future thoughts***