“The Incumbent's Dilemma: Which Disruptions Matter?”

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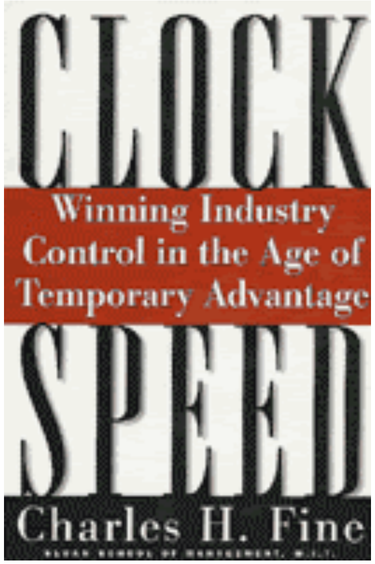
Excerpts from



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Telecom Incumbent’s Lament:

“Almost every day, someone comes into my office and tells me that some new innovation in the market is going to disrupt our business model and destroy us unless we react immediately and forcefully.”

“We know that most of these putative disruptors will harmlessly self-destruct. However, we also believe that any given day could bring the arrival of a truly threatening force that we must counter at all costs or risk annihilation.”

“How do we tell the difference?
Can you give us a model or framework to help?”

"Disruptive Technology" announcements by *The New York Times*, 1999-2008

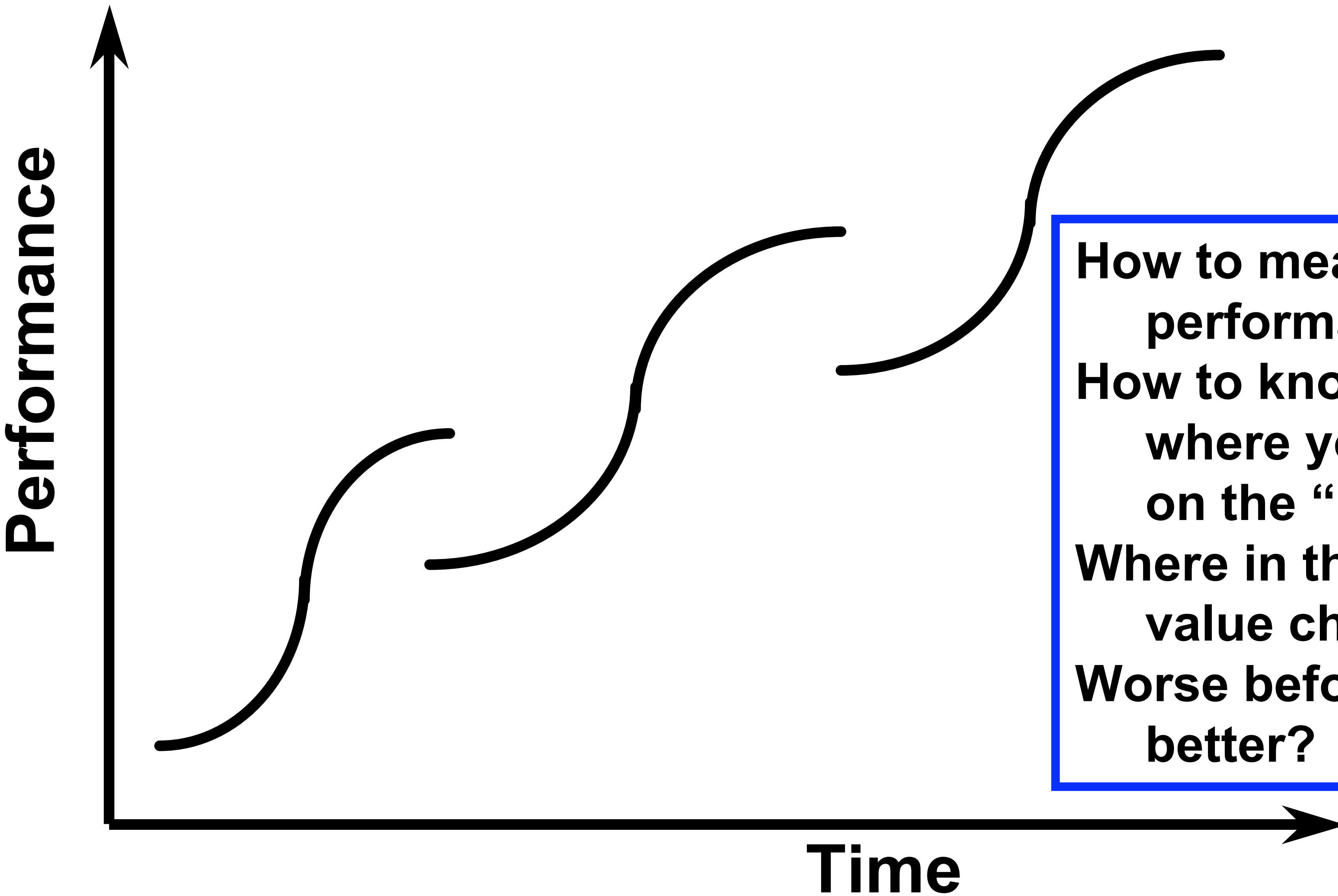
1999	Organic LED
	Nano Science in Chip Manufacturing
2000	Open Source Software
	Online Book Stores
	Internet Advertising
	Digital Photography
	Gigabit Ethernet
	Online Investment Firms
2001	Online Journals
2002	WiFi Mesh Networks
	Segway Scooter
2003	WiFi Mesh Networks
	Alternative Energy
2004	P2P Service Providers
2005	P2P File Sharing
	Online Shopping
2006	Online Book Content
	Online Commodity Futures Exchange
	YouTube (Political Advertising)
	You Tube (Video Content Distribution)
2007	Paint Films
2008	Advertising using Social Networks

Christensen's Conditions for Disruptive Technology

Firm	Price	Primary Performance	Ancillary Performance
Incumbent	High	High	Low
Entrant	Low	Low	High

Innovation Dynamics can be

RADICAL *(disruptive)* or INCREMENTAL *(sustaining)*



How to measure performance?
How to know where you are on the "S"?
Where in the value chain?
Worse before better?

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

What makes an innovation disruptive?

Performance Push

an overwhelmingly superior technology/process

(penicillin, mass production)

Customer Pull

new customers care about different measures of performance

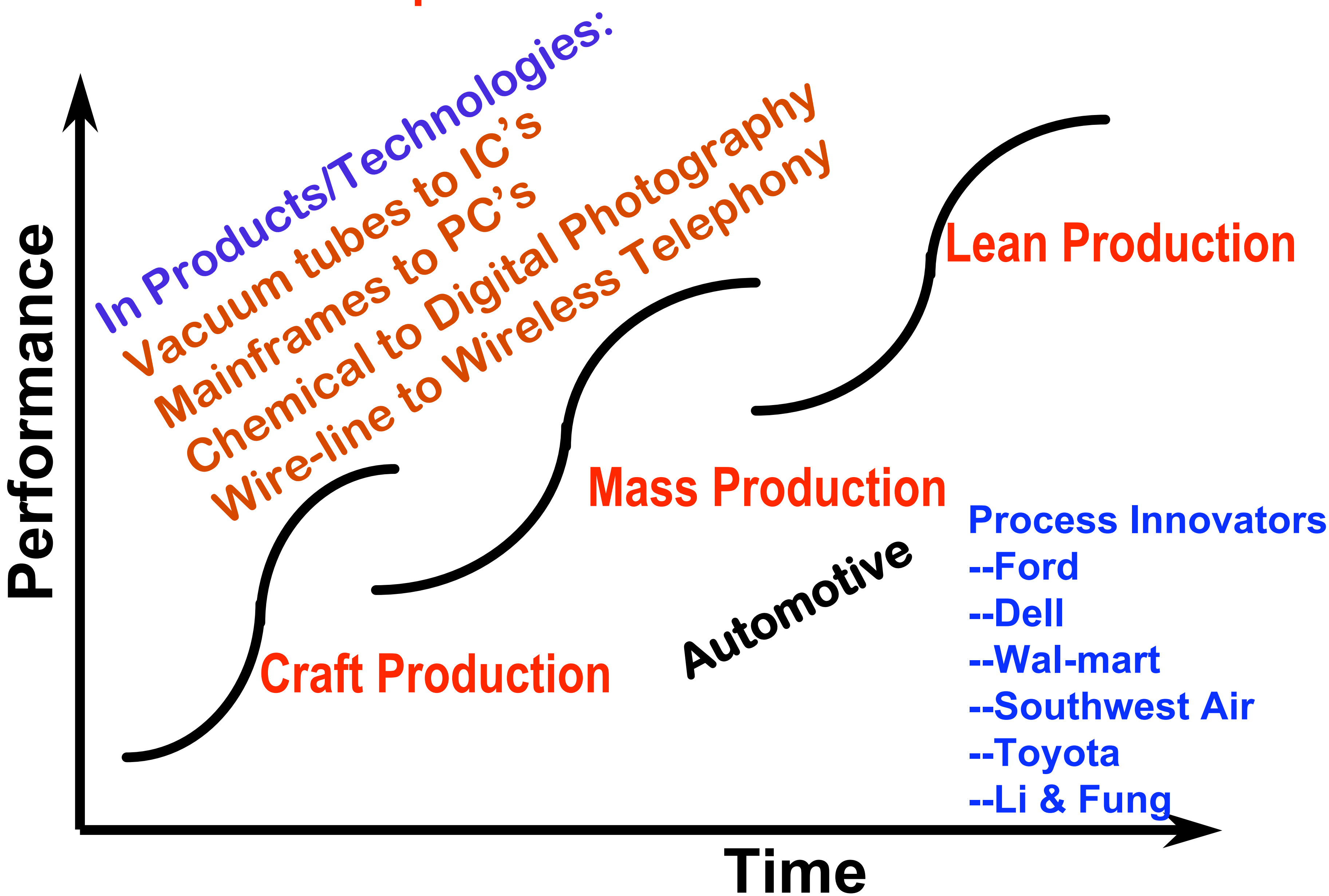
(wireless phones, personal computers)

Organizational Competencies

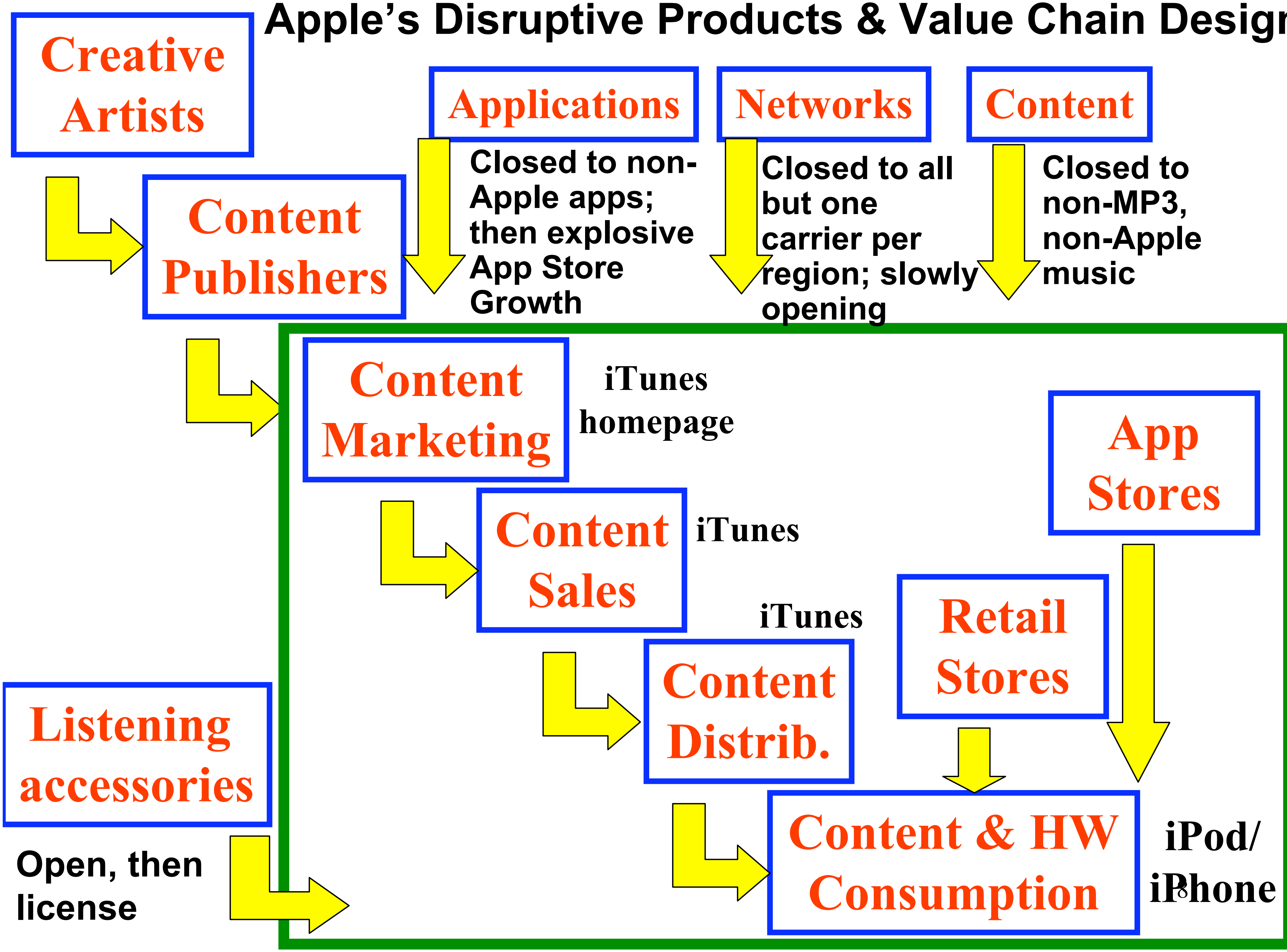
incumbents cannot do what the innovators can

(Dell supply chain, Southwest Air)

Disruptive *Product or Technology* Innovation vs. Disruptive *Process* Innovation

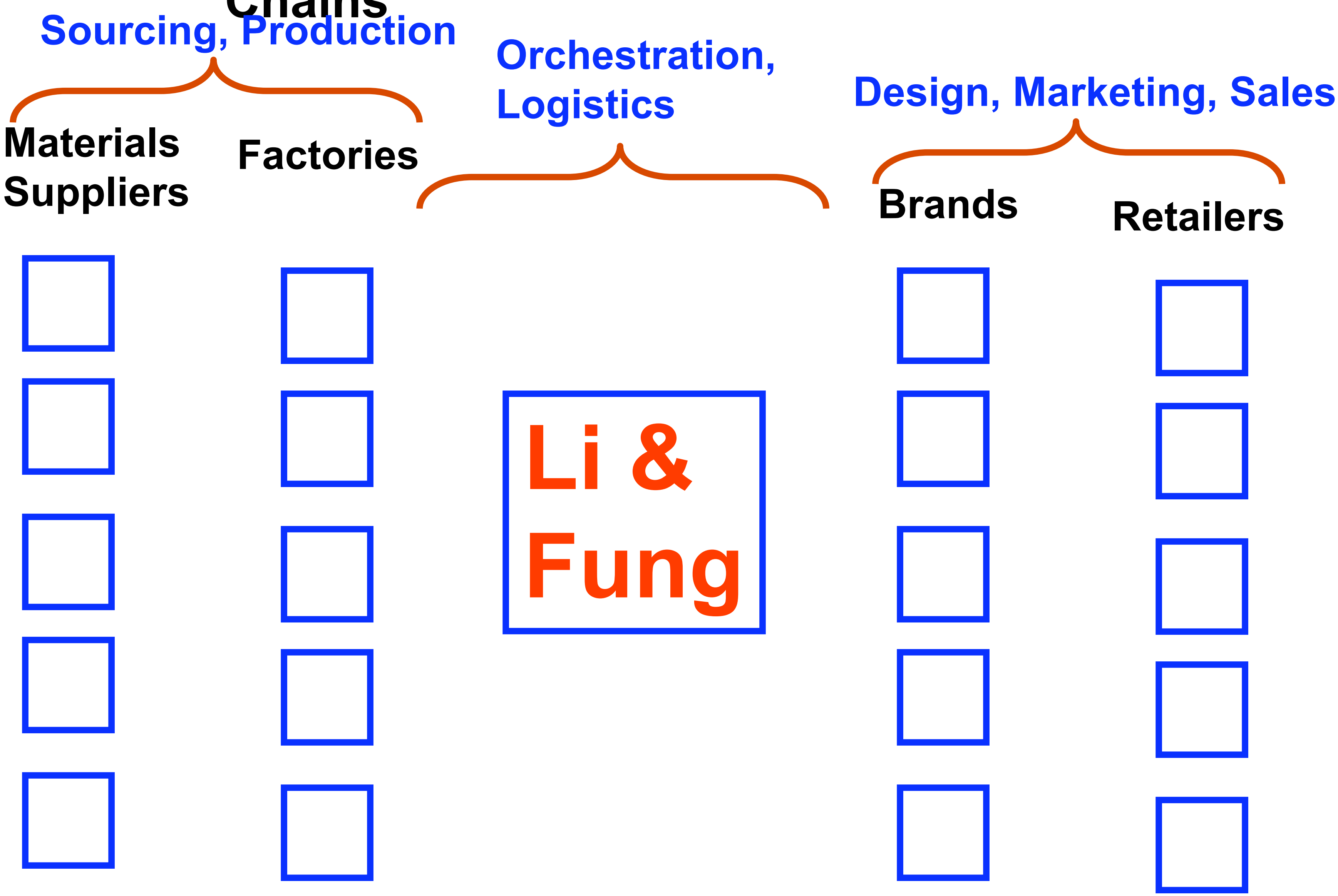


Apple's Disruptive Products & Value Chain Design



Li & Fung as a Two-Sided Platform:

A Value Chain for Make-to-Order Supply Chains

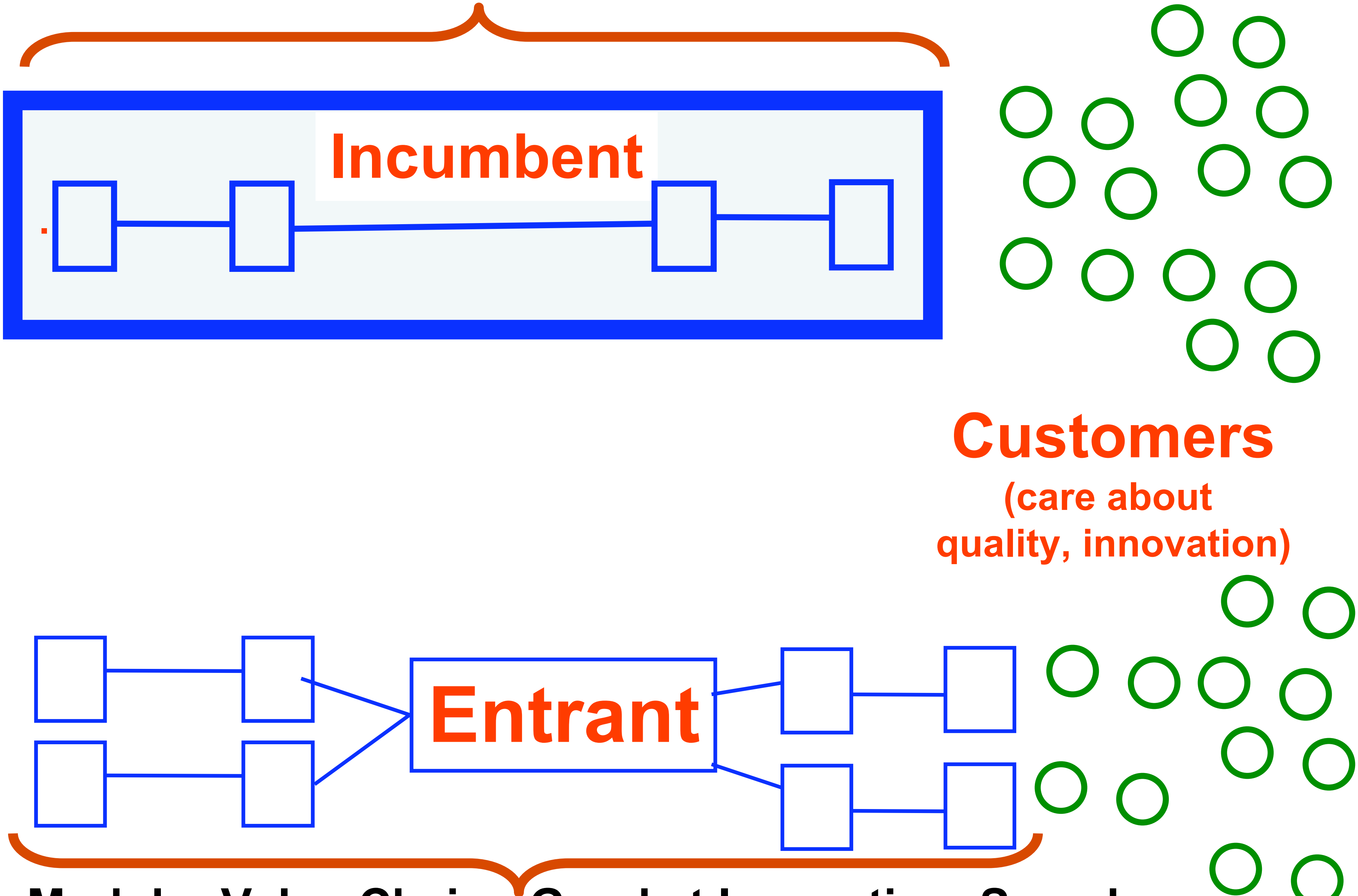


Model to Assess Disruptive Power

(ex: Skype vs. Verizon; Tesla vs. Toyota)

1. Consumers care about price, primary performance (transport or communication) and ancillary performance (carbon footprint, extra features) of a product/service.
2. Incumbent has integral value chain, good at product quality and primary performance.
   Rich in complementary assets.
3. Entrant has modular value chain, good at innovative services/features and ancillary performance. *Quick at adding features.*
4. Each firm's product/service has some degree of positive network externalities (e.g., the larger the user base for Skype or electric vehicles, the more attractive to new users).
5. Each firm's product/service has some degree of switching costs

Integrated Value Chain: Good at Quality



Modular Value Chain: Good at Innovation, Speed

Technology and Industry Disruptions

	Industry Disruption	No Industry Disruption	
Digital music Technology Disruption	• Weak Incumbent Network Effect • Strong Entrant Network Effect • Consumer highly price sensitive and willing to risk adopting innovative service with low quality and compatibility	• Incumbents can affect switching behavior • Incumbents innovate while maintaining quality • Incumbents control complementary assets • Entrants struggle to offer quality due to lack of functional control or market power	**Electric vehicles**
No Technology Disruption	Quadrant Not Relevant	• Strong Incumbent Network Effect • Consumers value quality and compatibility over innovation and low price	**Linux vs. Windows**

DISRUPTION IN COMPUTING: THE COMPUTER IS PERSONAL

PERSONAL COMPUTERS DISRUPT MAINFRAMES & MINICOMPUTERS

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IBM PC's beat back Apple & Tandy.

DISRUPTION IN COMPUTER DISTRIBUTION: CAN PERSONALIZED DESIGN & DELIVERY OF PC'S DISRUPT TRADITIONAL CHANNELS?

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DISRUPTION IN COMPUTER DISTRIBUTION: THE DESIGN & DELIVERY IS PERSONAL

Dell offers clones with lower prices and personalization.
IBM Retail channels are millstone; no longer complementary.

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Disruption in News Delivery:

News from GoogleNews & Blogs; Ads by Google
Video clips on YouTube; Ads by Google
Classified ads on Craigslist.

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Disruption in News Delivery:

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Video clips on YouTube; Ads by Google
Classified ads on Craigslist.

Consumers like free news; Google disintermediates content producers from advertisers.

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Disruption in Software & Content Distribution?

"There's An App For That"

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Disruption in Software & Content Distribution?

"There's An App For That"

App innovation is Fast & Flexible; New Platforms (e.g., iPhone + iTunes) form new Complementary Assets.

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Disruption in Social Networking; Facebook TV: Friends don’t let friends watch alone. Social network threatens content aggregators

facebook

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Disruption in Social Networking;
Facebook TV:
Friends don't let friends watch alone.
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facebook

	Industry Disruption	Still up for grabs? Price & Entrant Network vs. Quality & Control of complementary Assets (content)	No Industry Disruption
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Disruption in Storage & Time Shifting;
what I want; when I want; where I want.
Tivo threatens traditional content aggregators?

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Cable Company can offer DVR; Content control also key as a complementary asset.

The Future of TV and Video Value Chains; Collisions of Multiple Disruptions

a. *Disruption in Computing; devices are personal*
b. *Disruption in Networks; connectivity is ubiquitous*
c. *Disruption in Value Chain Clockspeeds; value capture is fleeting*
d. *Disruption in Content Control: catch me if you can*
e. *Disruption in Intelligence; whose pipes you calling "dumb?"*
f. *Disruption in Regulatory need; 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 search results*
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 <u>my</u> tube now.*

Television Reloaded: The Story of Story Telling

Fine, Klym, Clark, Lippman

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 (or The Gates of Hell?)

- ***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

11.TV is a Many-Splendored Thing

a. Future thoughts

All Conclusions are *Temporary*

Clockspeeds are increasing almost everywhere
Value Chains are changing rapidly

Assessment of value chain dynamics

Build Strategies and Roadmaps