Big Data and Creative Industry

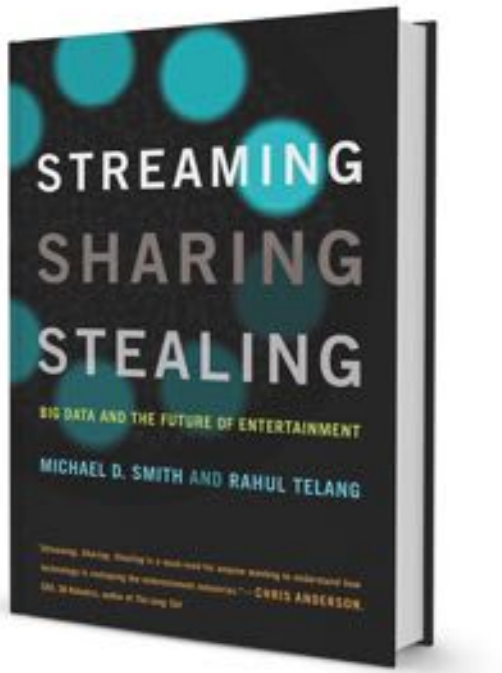
Rahul Telang

Carnegie Mellon University

Is technology changing power in entertainment?

Is technology hurting entertainment quality?

How can industry leaders respond?



“The original players in this industry have been around for the last 100 years, and there’s a reason for that.”













80%



warner | music | group



UNIVERSAL MUSIC GROUP



85%













50%

"Hit content and hit content at scale, which is what we have, has the upper-hand over distribution."

Chase Carey,
COO, 21st Century Fox

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Technology Changes…

- User-Generated Content
- Long Tail Markets
- Digital Piracy
- Powerful On Demand Bundled Distribution Platforms
- Big Data



Established Business Model

Market Characteristics

- High fixed cost of production,
- Low marginal cost of reproduction/distribution,
- Scarce channel capacity,
- Possible to control user access to content (via copyright)

Business Model

- Sell individual products to consumers with different values
- Use release windows/versions targeted to market segments

Keys for Success

- Scarce financial/technical resources to make content
- Scarce channels necessary to distribute content
- Scarcity in how consumers access content

Established Business Model

Market Characteristics

- Low to High fixed cost of production,
- Zero marginal cost of reproduction/distribution,
- "Unlimited" channel capacity,
- Difficult to control user access to content (via copyright)

Business Model

- Sell individual products to consumers with different values
- Use release windows/versions targeted to market segments

Keys for Success

- Scarce financial/technical resources to make content
- Scarce channels necessary to distribute content
- Scarcity in how consumers access content

On-Demand Bundled Model

Market Characteristics:

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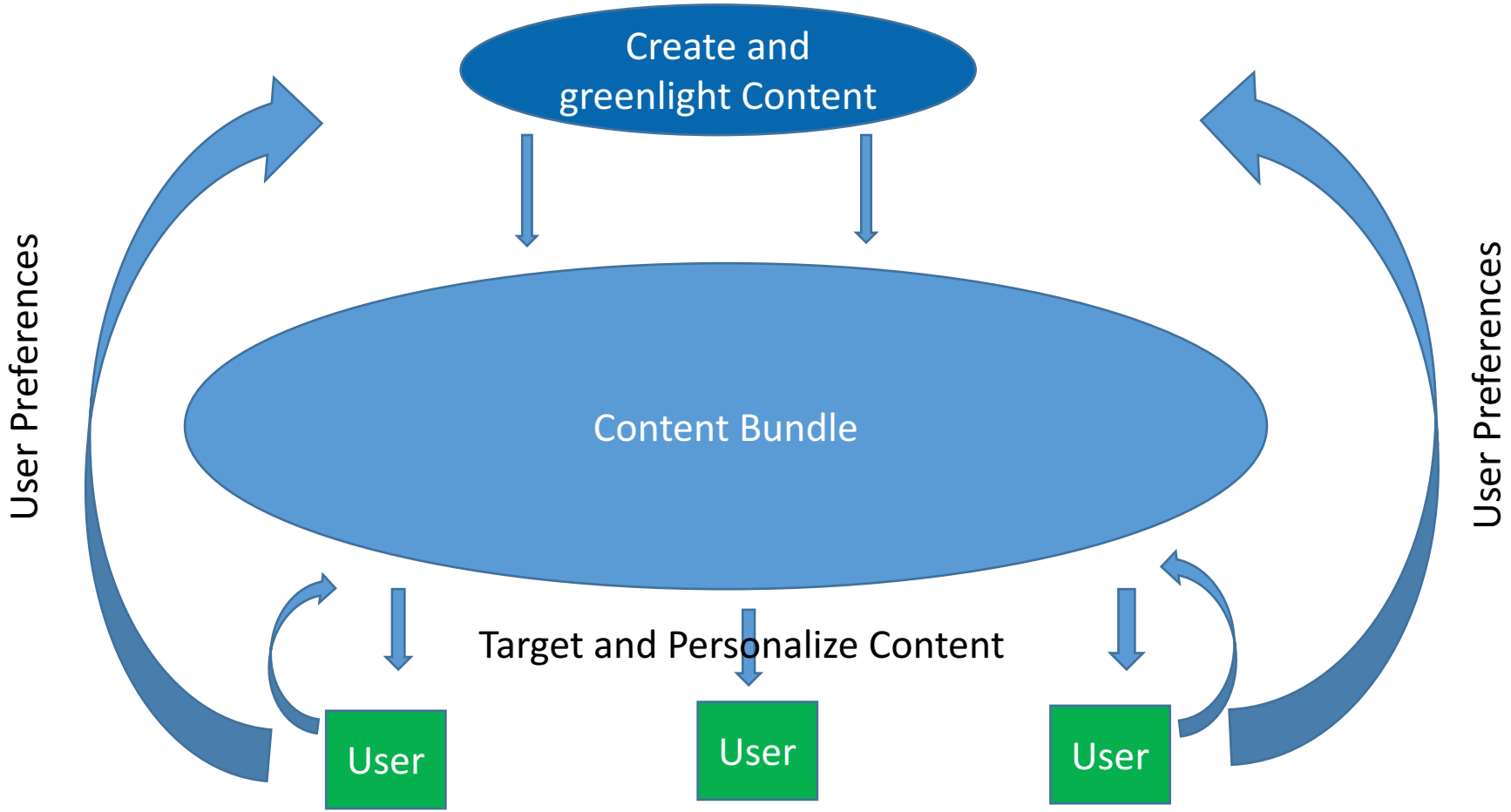
Business Model:

- Sell content in massive on-demand subscription bundle
- Target content based on individual consumer preferences

Keys for Success:

- Use data to help consumers find content for individual tastes
- Larger bundle more profitable than smaller bundle
- Ability to profitably create niche content

Big Data


Create and greenlight Content
Content Bundle
Target and Personalize Content
User
User
User
User Preferences
User Preferences

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How can industry leaders respond?

"There's a whole thing going on in Netflix right now and in Silicon Valley saying 'we're going to use algorithms to make creative decisions.' I say 'posh.' You can't."

John Landgraf
CEO FX Television

FORTUNE

Netflix Could Win Big at the 2016 Emmys

VARIETY

HBO, FX, Netflix Make Emmy Gains as Broadcast Nets Fade

Entertainment Weekly

Netflix tops HBO for first time as streaming disrupts Golden Globes

WIRED

GOLDEN GLOBE NOMINATIONS SHOW NETFLIX IS TAKING OVER


"Why did Netflix keep this scene?
HOUSE of CARDS

Individualized Ads on TV Could Be One Result of AT&T-Time Warner Merger







Gut Feel to Data Driven…

Example: Harrah's Entertainment

- Each property operates as independent "fiefdom"
- (Historically) little data about customers
- Gut feel management, distributed marketing

Cultural Change

"When I meet with our marketers to discuss anything that we've done that is new I ask, 'Did we test it first?' And if I find out that we … went after something without testing it, I'll kill 'em. No matter how clever they think it is, we test it."

Gary Loveman, Harrah's

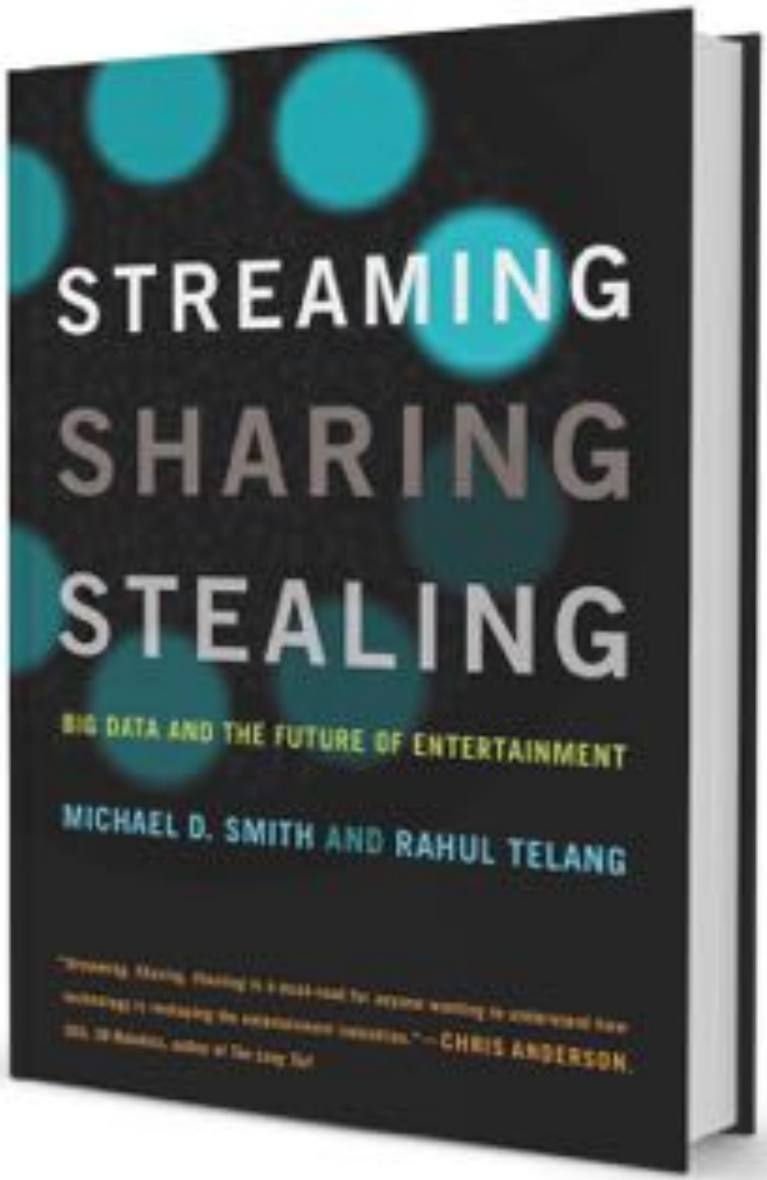
How to Organize around Data

- Data are most useful when linked
- Increases effectiveness of analytics talent
- Makes it easier to retain talent
- Increases objectivity in analysis

Potential Analytics Structure

- Centralized hiring
- Report to data analytics group
- Sit within business unit
- Examples: Amazon, *Legendary Pictures*

THANK YOU


STREAMING
SHARING
STEALING
BIG DATA AND THE FUTURE OF ENTERTAINMENT
MICHAEL D. SMITH AND RAHUL TELANG