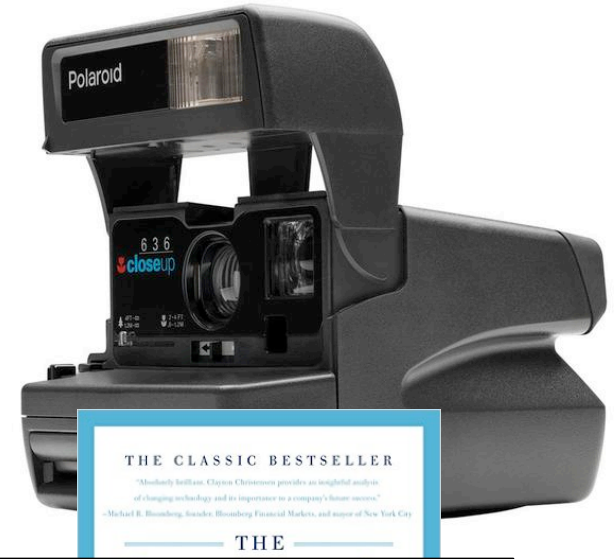
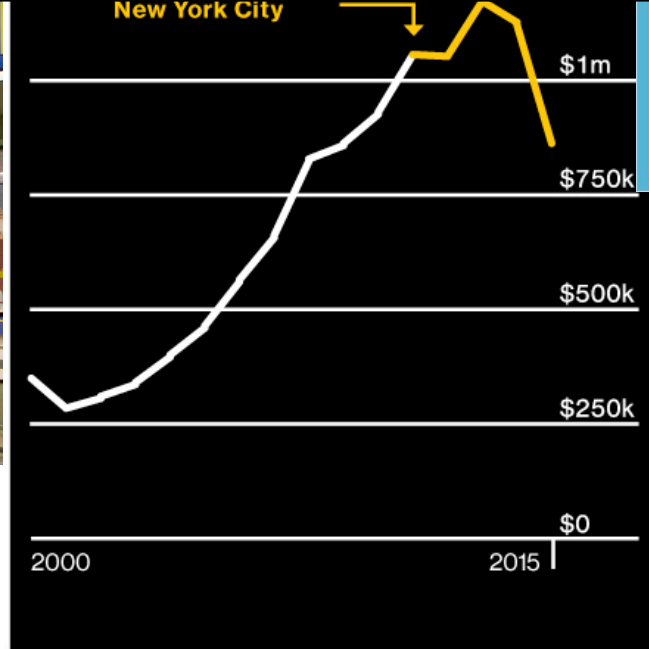


Steps to Technological Transformation: A Change Management Perspective

J.P. Eggers
@ NYU Stern



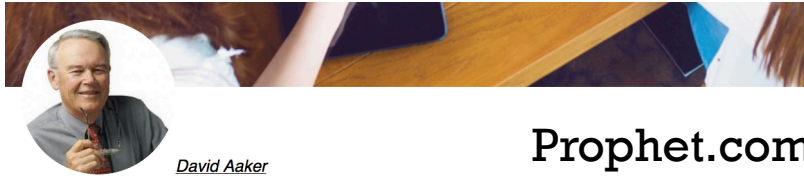
Incumbents are screwed!



Joseph Schumpeter
Father of "Creative Destruction"

2015 DOLLARS. DATA: NYC TAXI & LIMOUSINE COMMISSION

+ Everyone offers reasons why incumbent firms fail to innovate and adapt

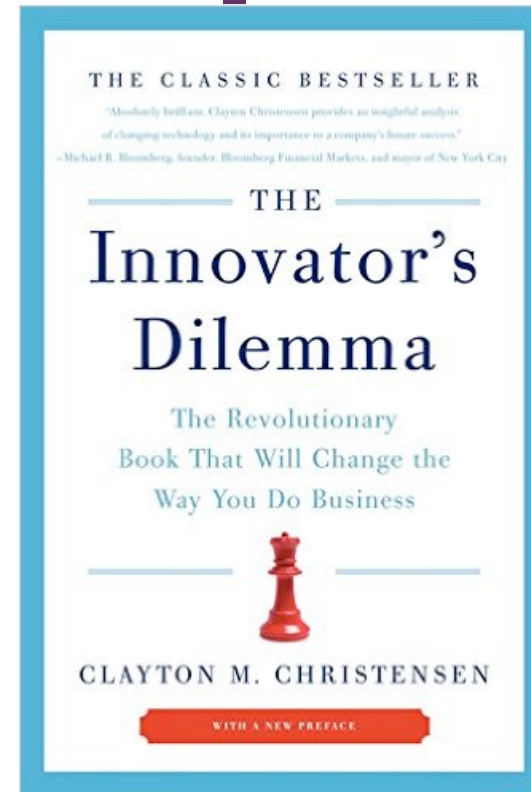


David Aaker

Prophet.com

Six Reasons Why Incumbent Firms Fail to Innovate

- *Have lousy culture*
- *Too short-term focused*



Listen too closely to current customers

3 Brands That Prove Listening To Customers Is Key To Company Comebacks

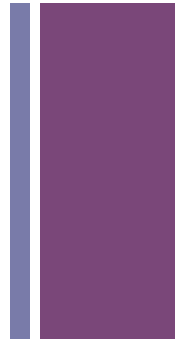
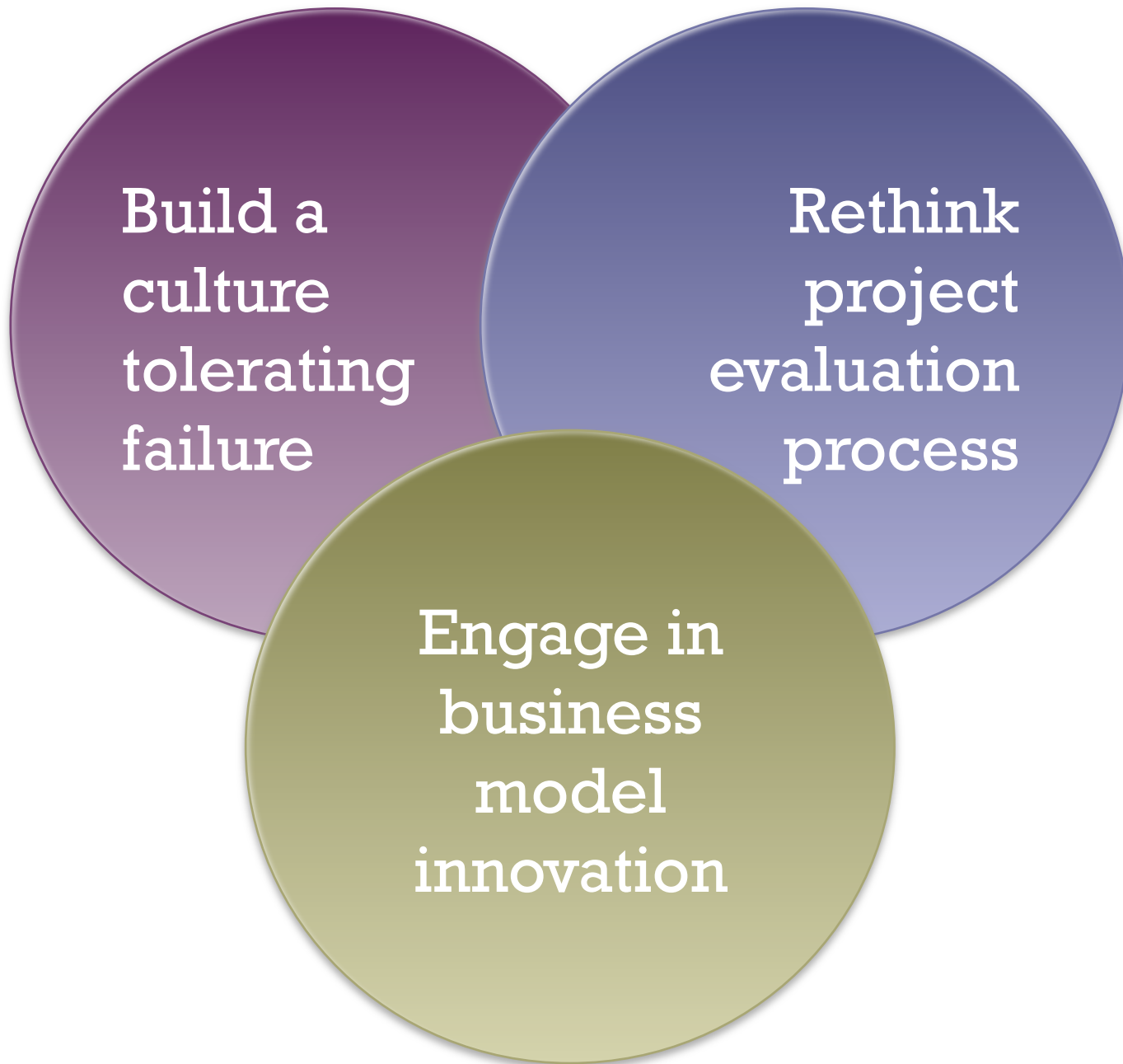
from FastCompany.com



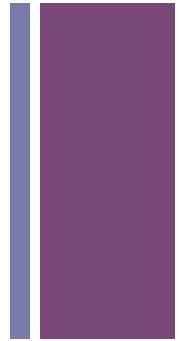
+ Hard to be innovative, but incumbents have multiple (potential) advantages

- Resources
- Knowledge & Capabilities
- Complementary Assets
- Recognize that incumbent firms DO have some potential advantages to capitalize on
- Impediments to change are cognitive, cultural, structural, process

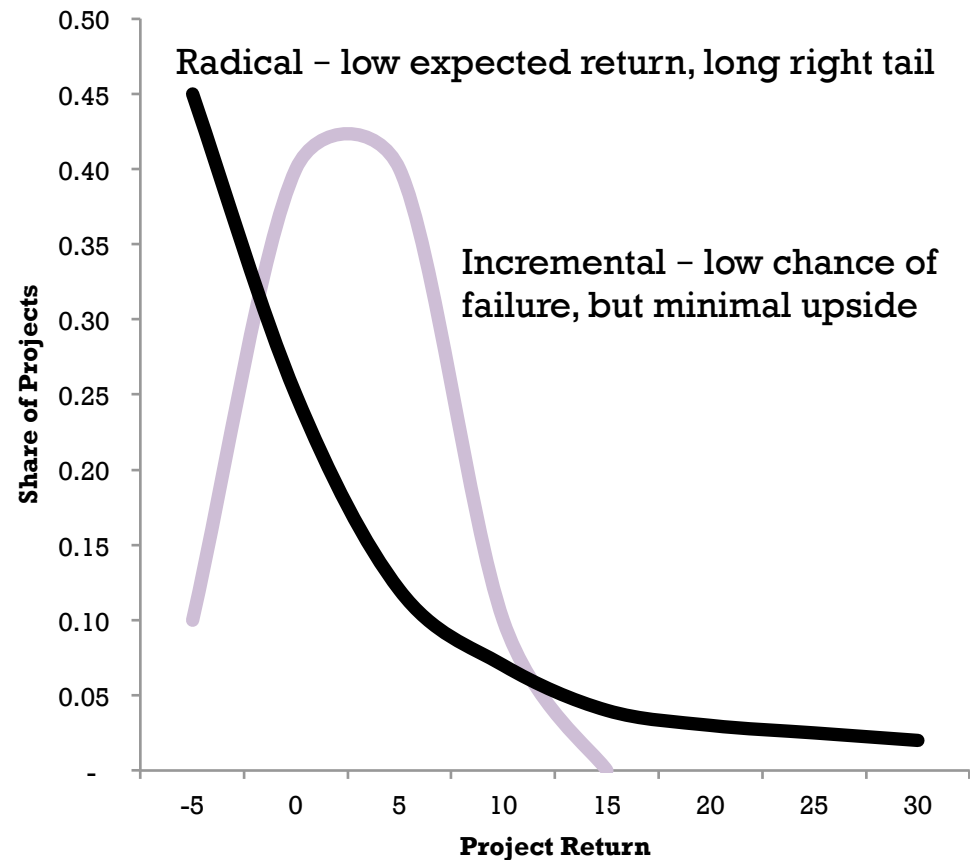




+ Failure: An important ingredient in future success



- Radical projects often fail
- But radical has highest chance of breakthrough
- Most firms (e.g., VCs) handle tradeoff through volume



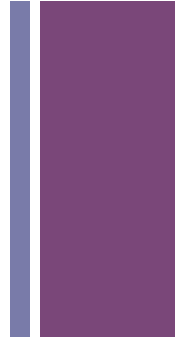
+ Failure: An important ingredient in future success

Outcome	Mktng	Finance	Ops
Positive	-	hi	hi
Positive	hi	-	-
Positive	hi	hi	-
Positive	-	-	hi

Outcome	Mktng	Finance	Ops
Positive	-	hi	hi
Negative	hi	-	-
Positive	hi	hi	-
Negative	-	-	hi

- Learning requires specific types of information:
 - Information about choices
 - Information about outcomes
 - Variance in choices and outcomes
- Failure provides important information
 - Hard to understand causes of success with no information on failures

+ Failure: An important ingredient in future success



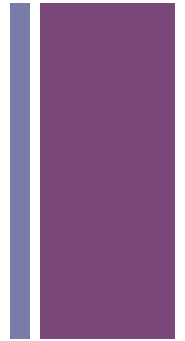
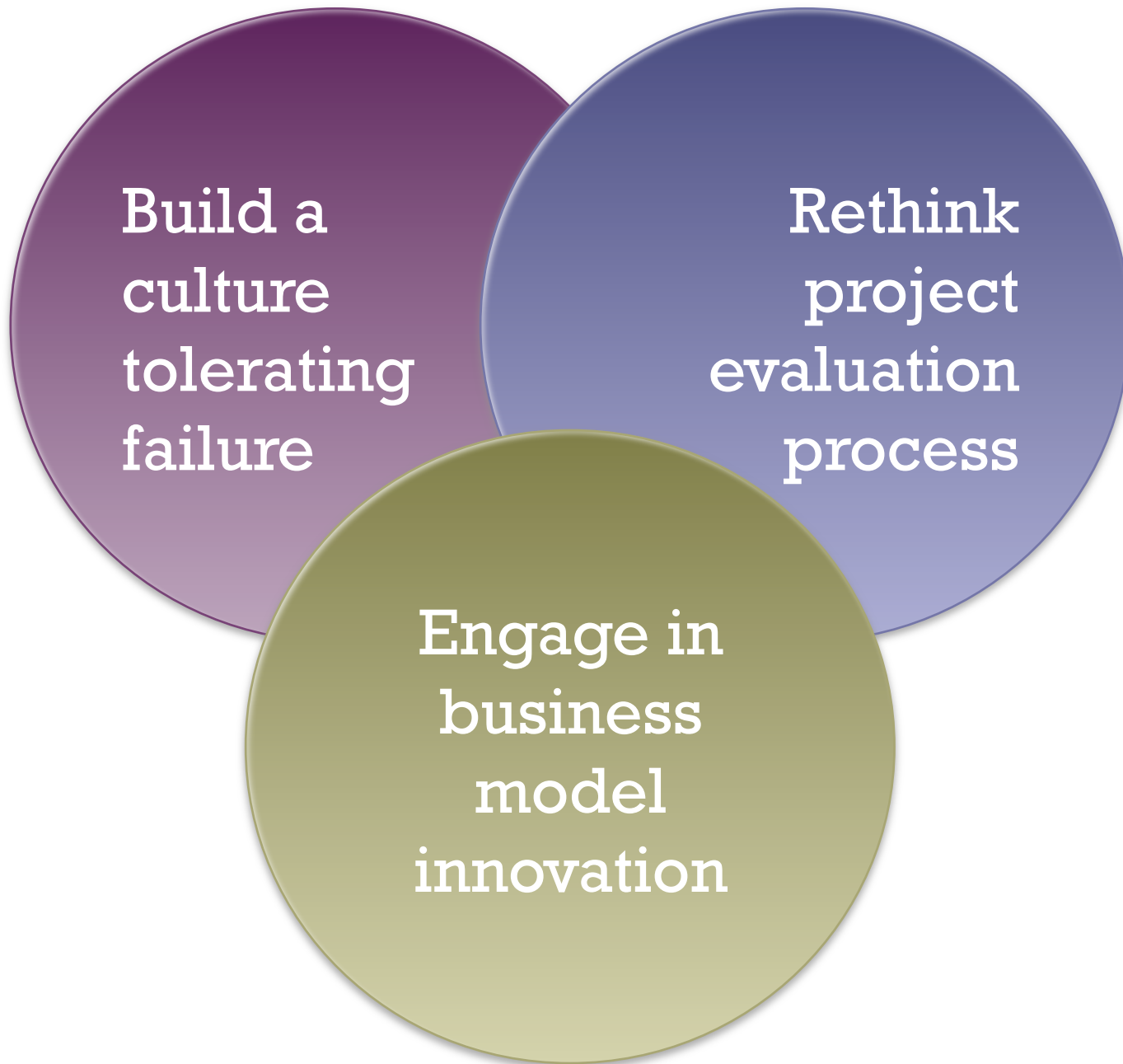
- Failure is both common and instructive when pursuing radical projects
- But tendency is to:
 - Ignore content of failure – “sweep it under the rug”
 - Punish those responsible for failed projects
- Result is that failure tends to lead to paralysis and/or retreat:
 - Limited learning from failures
 - Preference for safer domains & projects
 - Especially for failures in radical innovation (new domains)

+ Failure: An important ingredient in future success

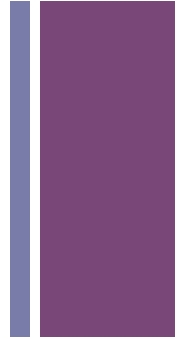
- How should organizations handle the important challenges of failure?
 - Borrow from hospitals & medical debriefings
 - Set expectations *ex ante*



Hospital debriefs for adverse events

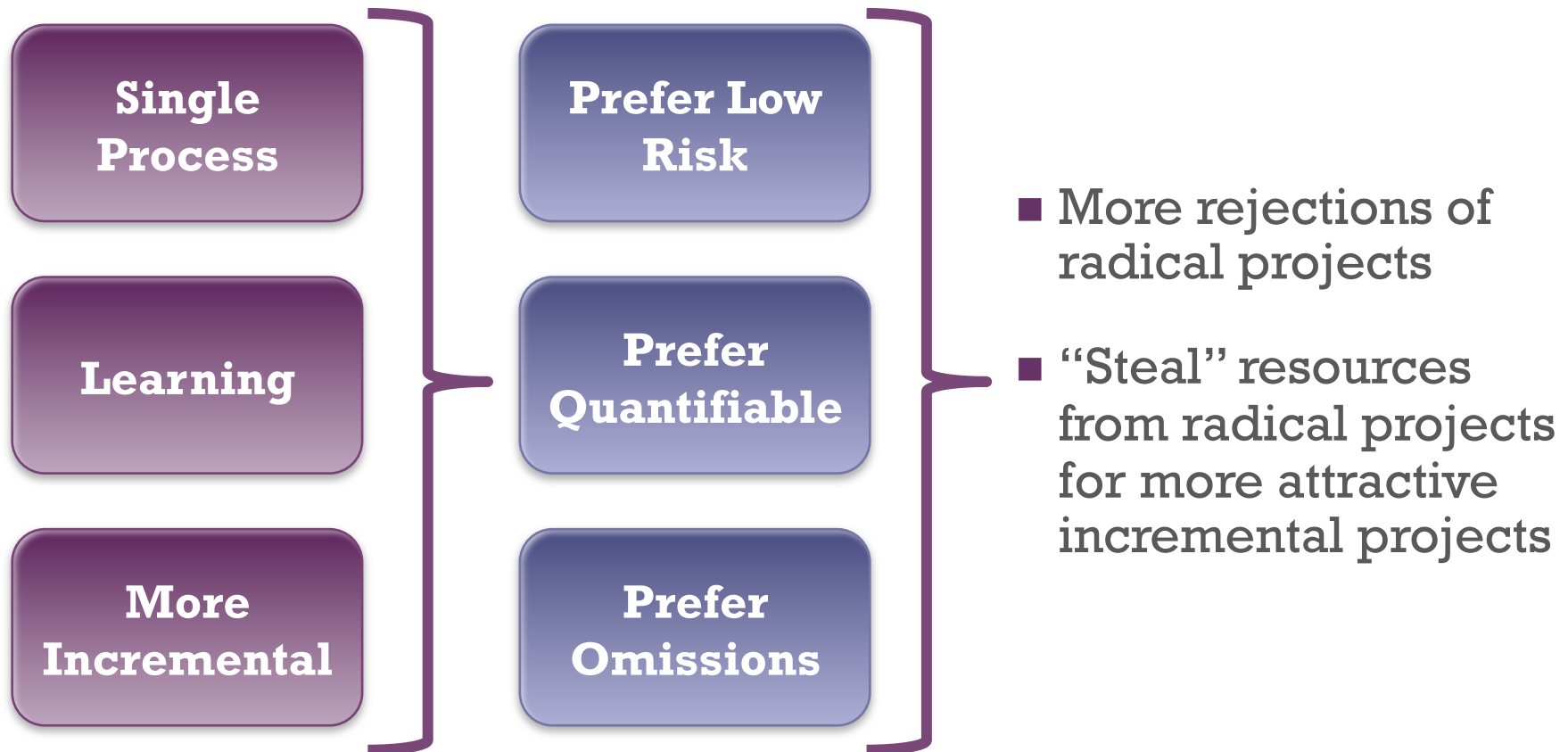
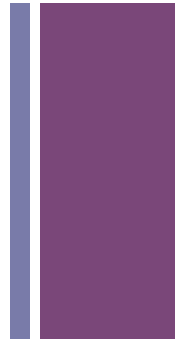


+ Process: Decision making to support radical innovation

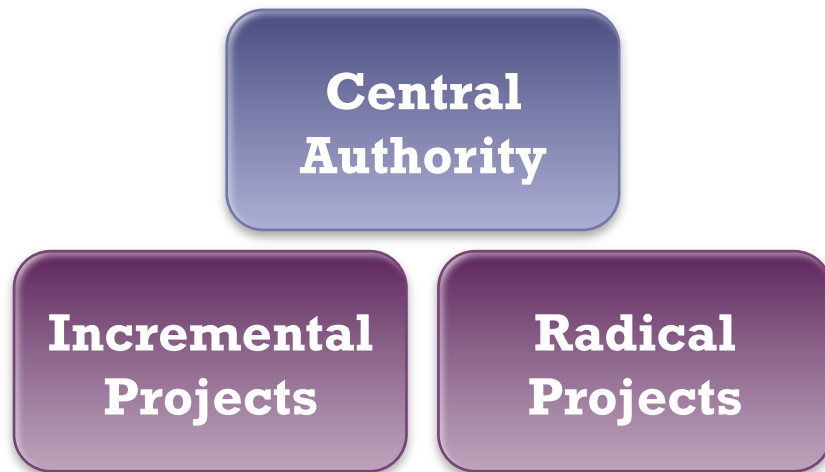
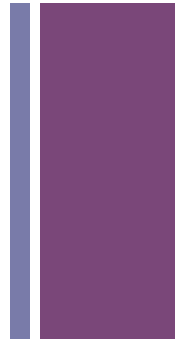


- About the process at most firms for approving projects
 - Capital budgeting, resource allocation, project approval
- Some regularities of the process across firms
 - Single process for approving projects, allocating resources
 - Adapt processes based on feedback
 - Face more incremental projects than radical projects

+ Process: Decision making to support radical innovation



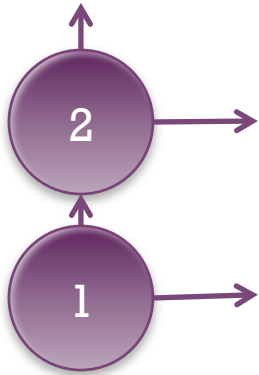
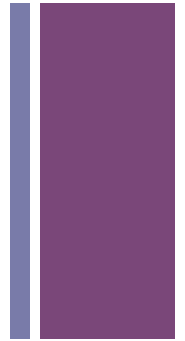
+ Process: Decision making to support radical innovation



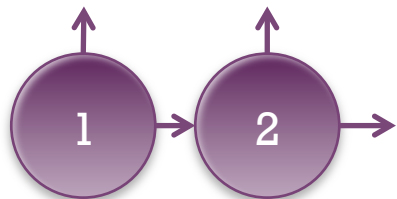
- Separate structures
- Each optimizes for types of projects handled

- Notes on process to consider radical projects
 - Need higher level people involved
 - Need to establish timeline, metrics before starting
 - Focus on maximizing upside while limiting downside exposure
 - Prefer more decentralized process, structure

+ Process: Decision making to support radical innovation

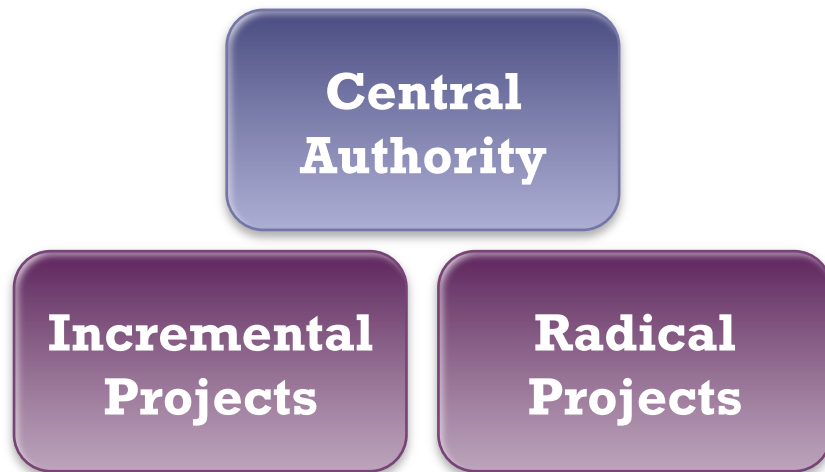


- Hierarchy means 1 rejects idea or passes along to 2
 - Leads to few commission errors (false positives), but more omission errors (false negatives)



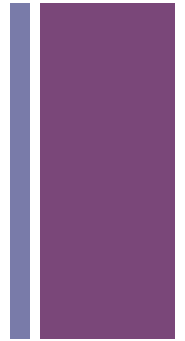
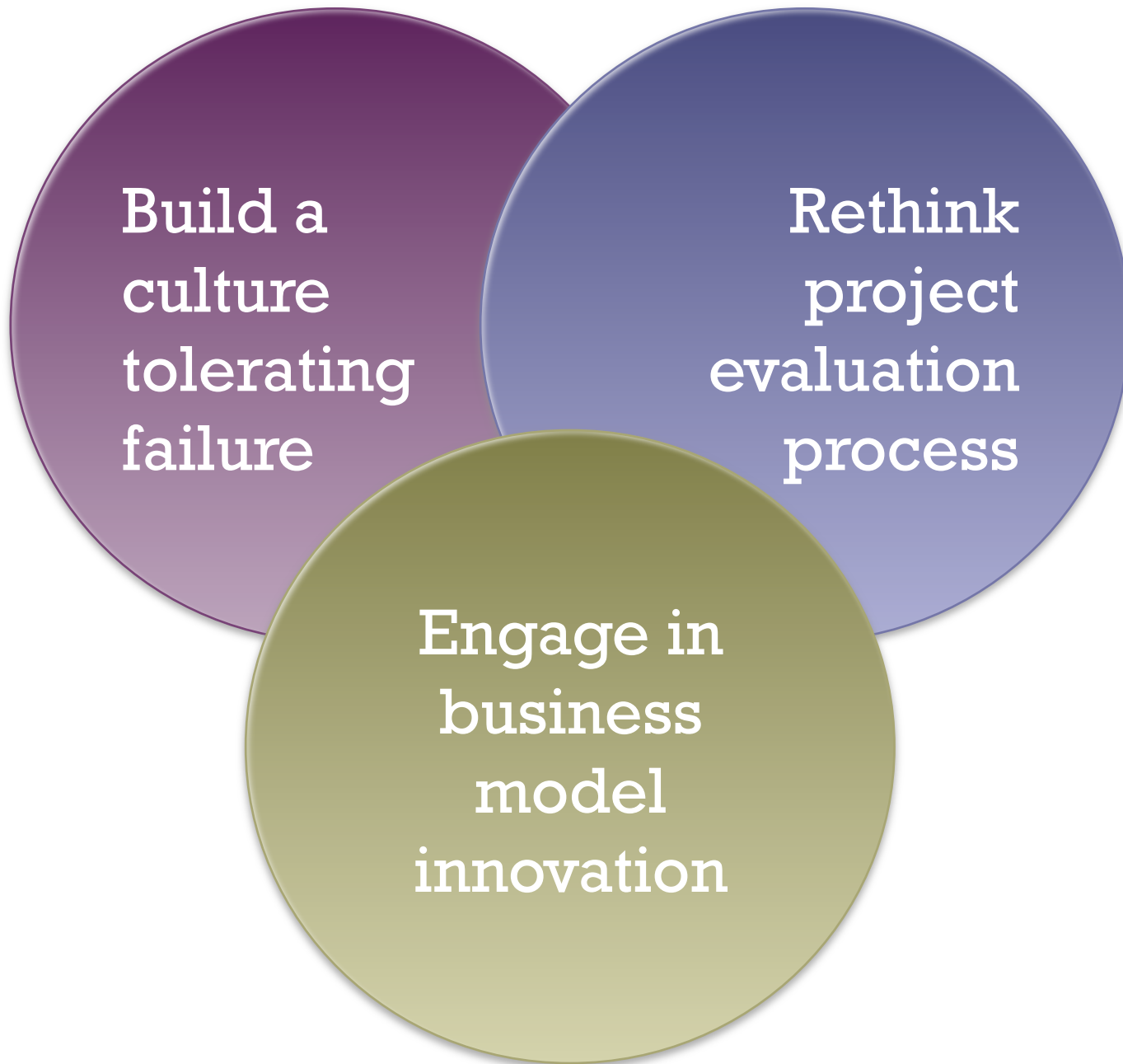
- Decentralization means that if either 1 or 2 likes the idea, it is accepted
 - Leads to few omission errors, more commission
- Best structure depends on relative costs of omission and commission errors

+ Process: Decision making to support radical innovation



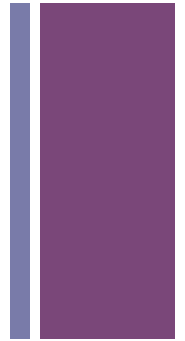
- Separate structures
- Each optimizes for types of projects handled

- Notes on process to consider radical projects
 - Need higher level people involved
 - Need to establish timeline, metrics before starting
 - Focus on maximizing upside while limiting downside exposure
 - Prefer more decentralized process, structure



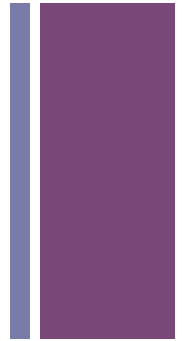
+ Biz Model: Constrains and enables radical innovation

- Most research on adaptation of incumbent firms to radical innovation highlights cognitive factors that limit adaptation
 - Managerial cognition sets agenda for organization, resource allocation
 - Organizational identity limits appeal of new technologies
- Cognition typically manifests in terms of the business model
 - Cognitive understanding of how the company works, creates value
 - Business model understanding can be sticky



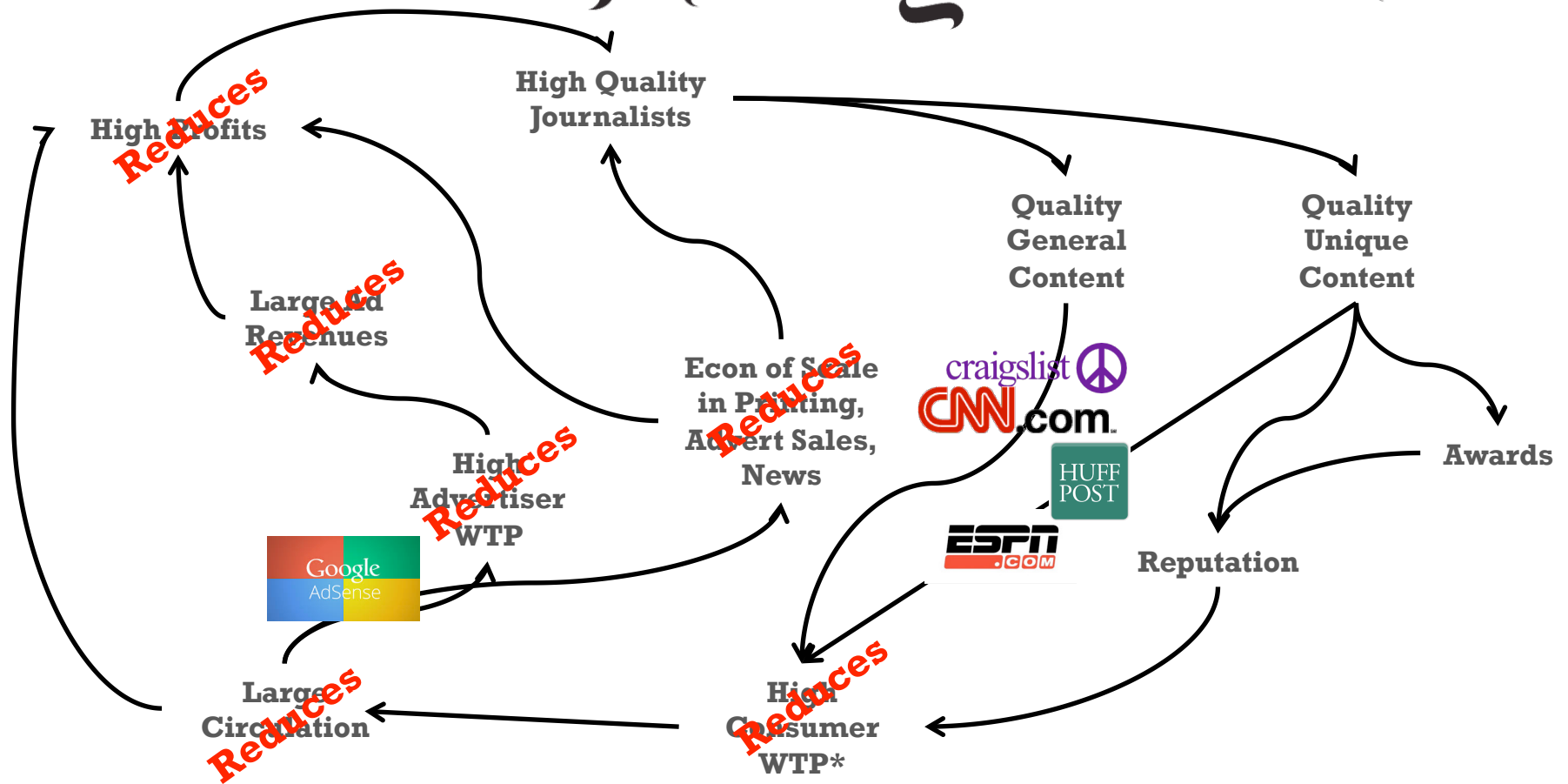
+ Biz Model: Constrains and enables radical innovation

- Classic story is Polaroid
 - Leaders in instant-printing (camera and film)
 - Leaders in patents for digital camera
 - Believed in “razors-and-blades” business model
 - Flop products



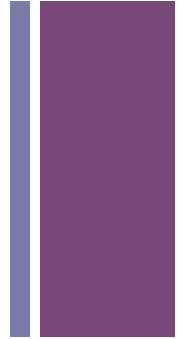
+ Biz Model: Constrains and enables radical innovation

The New York Times



*: willingness to pay (valuation of product)

+ Biz Model: Constrains and enables radical innovation



- Business model is a system of activities that describes how the firm “does business” and “creates value”
- Three characteristics of a good business model:
 - Aligned with company goals
 - Self-reinforcing (virtuous cycle)
 - Robust to imitation, complacency, and substitution
- Popular discussion with larger companies fearing disruption

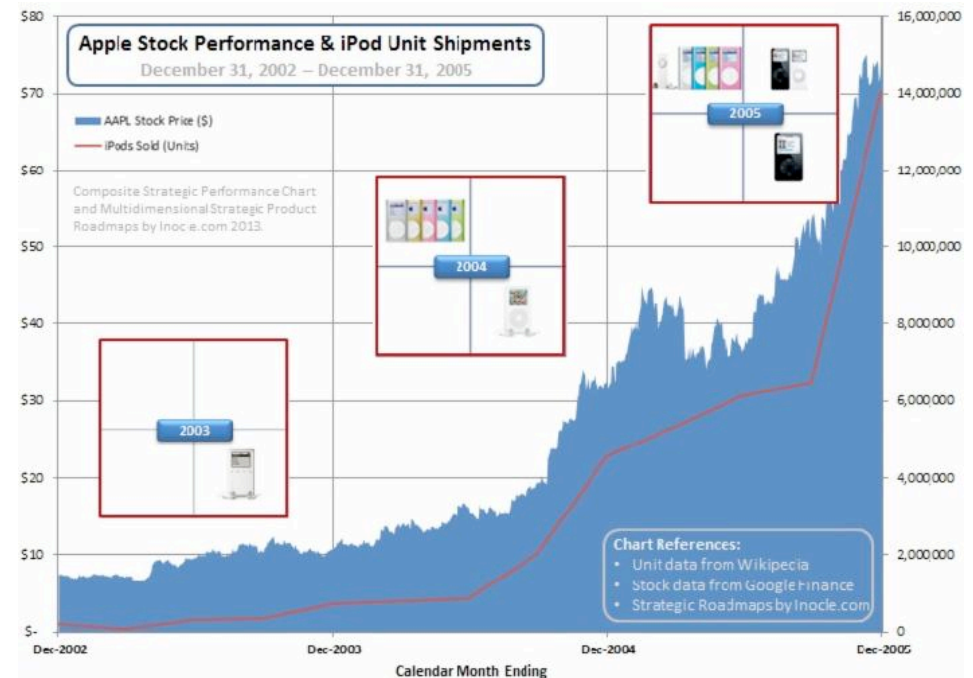
+ Biz Model: Constrains and enables radical innovation

■ Focus on business model innovation

- Often involves offering existing products using existing technologies to existing customers

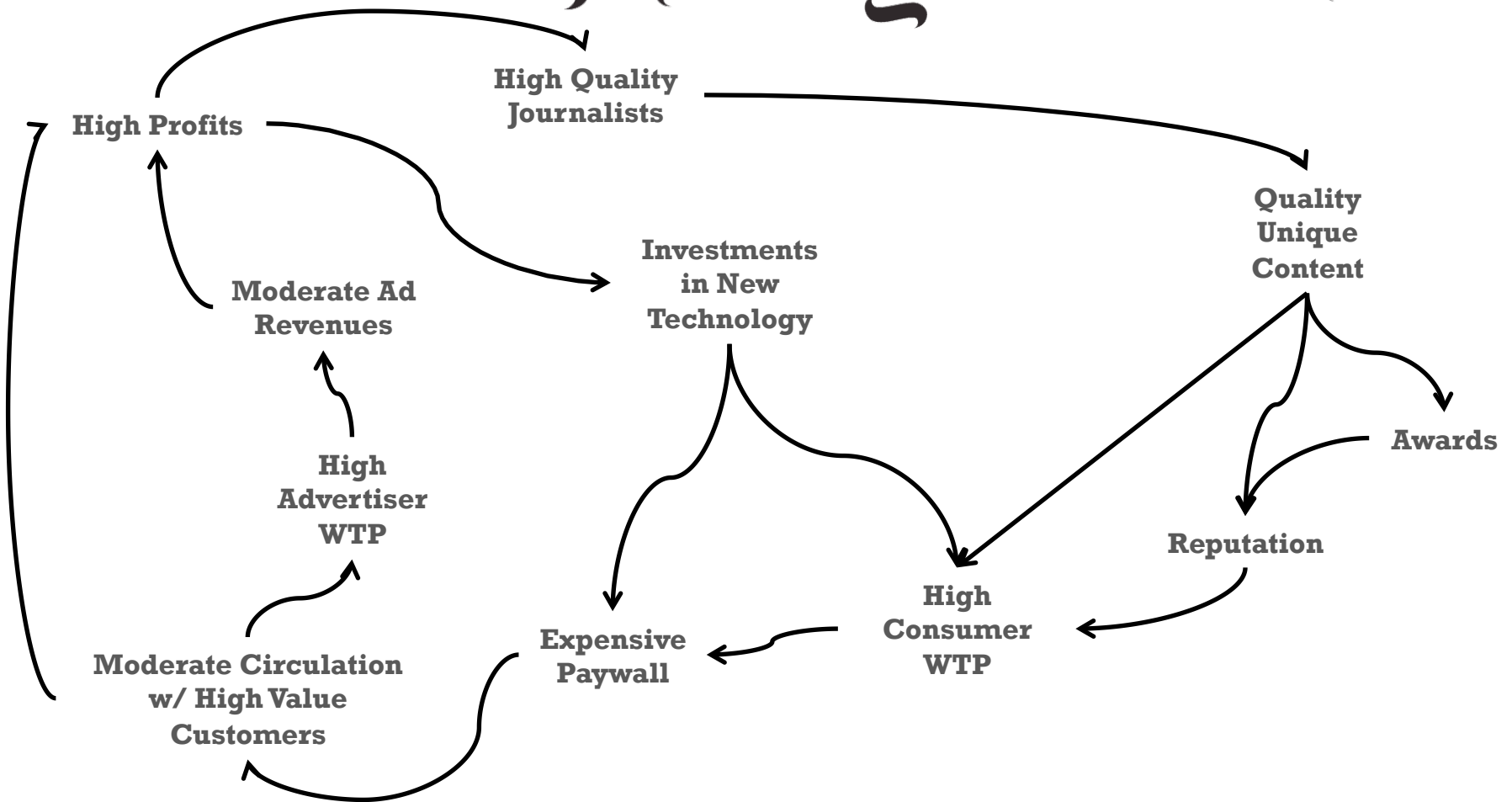
■ Achieved through:

- add
- link
- identity



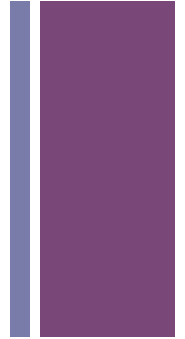
+ Biz Model: Constrains and enables radical innovation

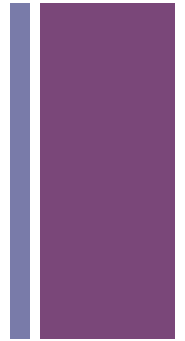
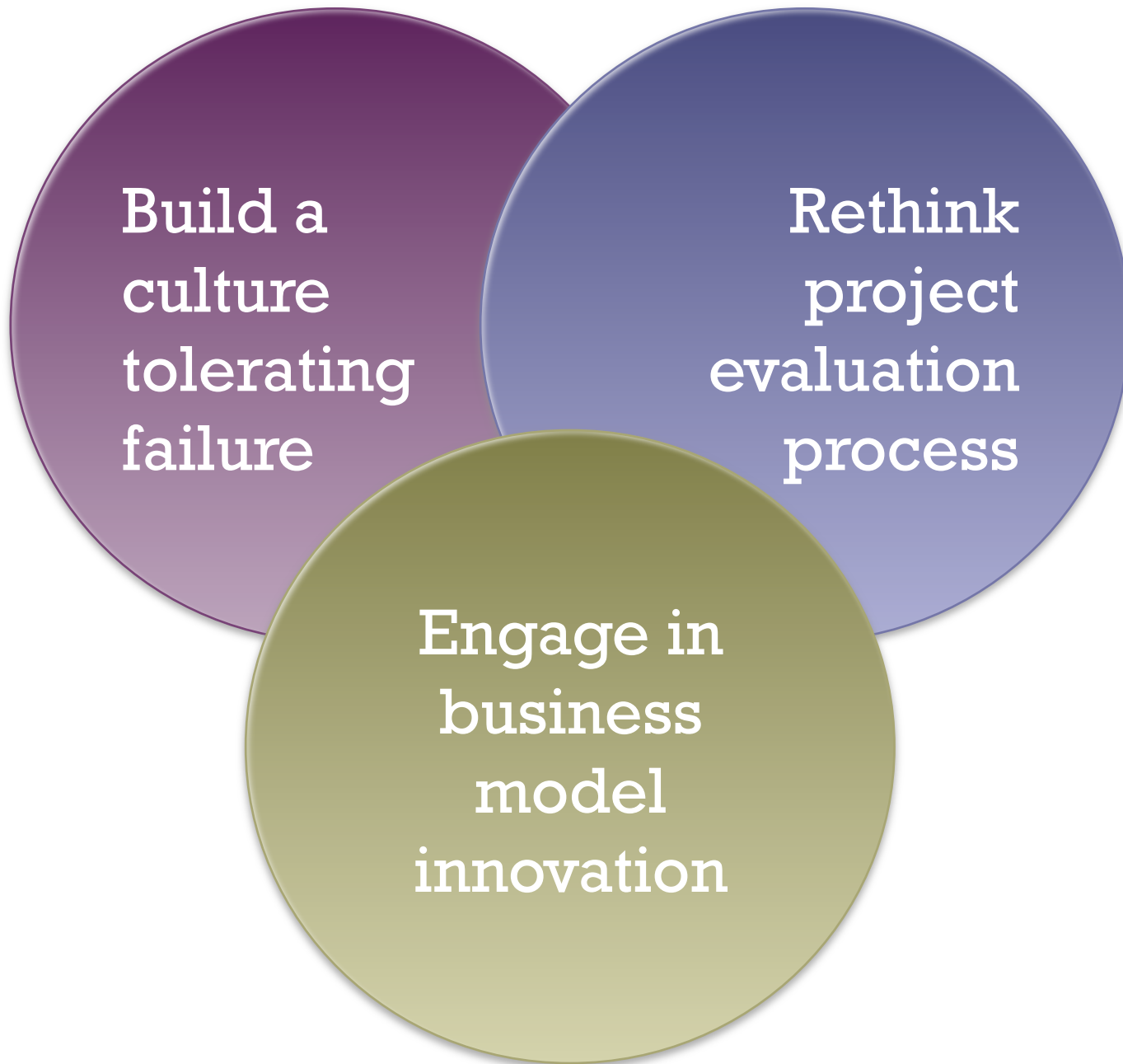
The New York Times



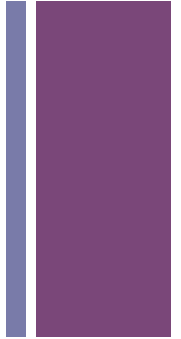
+ Biz Model: Constrains and enables radical innovation

- Key challenges to business model innovation to facilitate radical innovation
 - Typically involves shifting power structure within firm
 - Business model has deep cognitive roots





+ Opportunity for incumbent firms to radically innovate



- Capitalize on strengths
 - Resources
 - Knowledge & Capabilities
 - Complementary Assets
- Overcome typical weaknesses
 - Build a culture tolerating failure
 - Rethink project evaluation process
 - Engage in business model innovation





Thanks!

jeggers@stern.nyu.edu