

# PUSH, PULL, AND THE SOURCES OF INNOVATION

Professor Karl T. Ulrich



## Where does advantage come from?

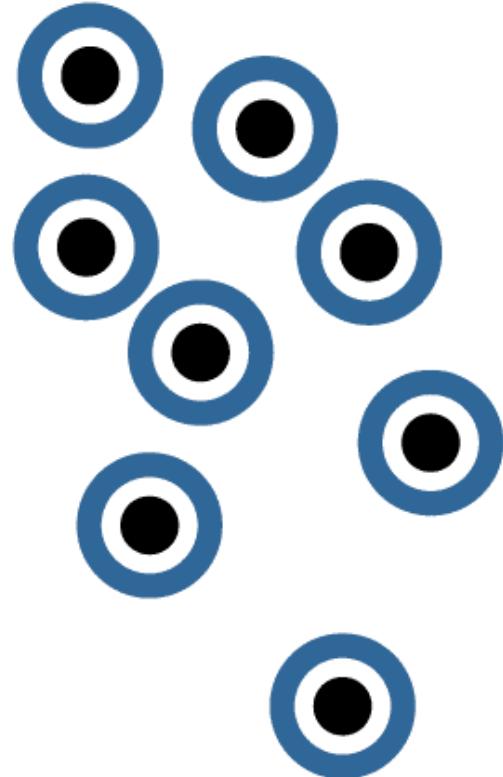
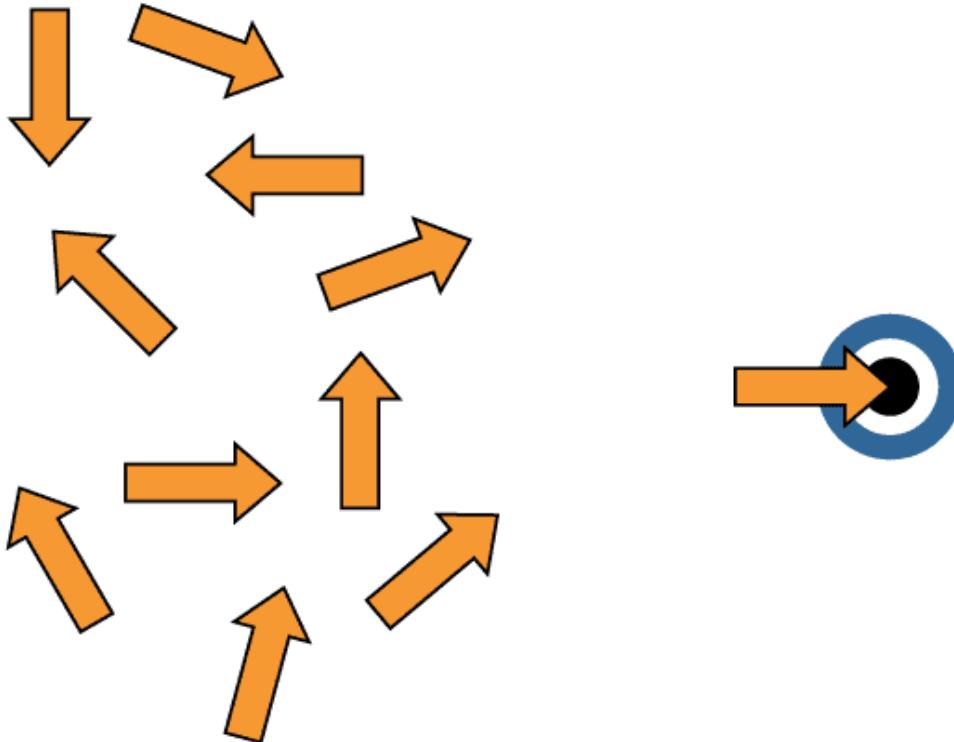
1. (Illegal or regulated monopoly.)
2. Cost advantages from scale.
3. Doing something valuable, better, and different.
  - Differentiated products and services.
  - Rare capabilities (e.g., cost efficiency, safety, etc.).



Usually the focus for the entrepreneur.

# in**no**vation

A new match between a solution and a need.



# Value Creation in Innovation

1. Is the need real?



2. Does the solution meet the need?



3. Is the “customer” willing to pay more for the solution than it costs to deliver it?



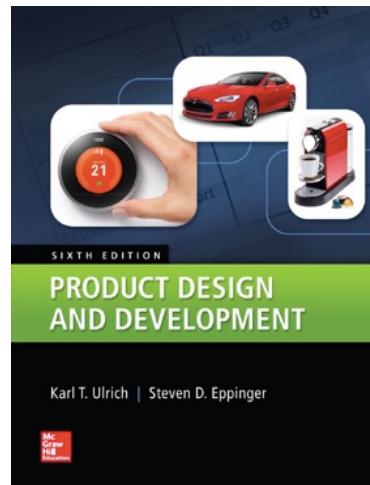
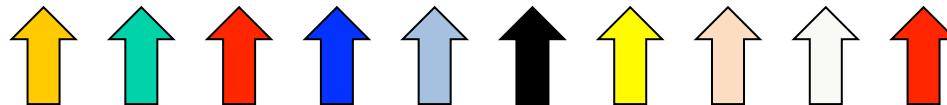
Price – Cost  $\gg 0$

# Pull

How can we solve this particular problem?



Which solution best meets the needs at attractive cost?



**The Textbook Model**  
**(and mostly the focus of this course)**



**Source:**  
Wikimedia Commons,  
Jacoplane

## Stringr Video

By Stringr Inc.

Open iTunes to buy and download apps.



[View in iTunes](#)

This app is designed for both iPhone and iPad

Free

Category: News

Released: Sep 18, 2014

Version: 1.0

Size: 14.3 MB

Language: English

[View More by This Developer](#)

### Description

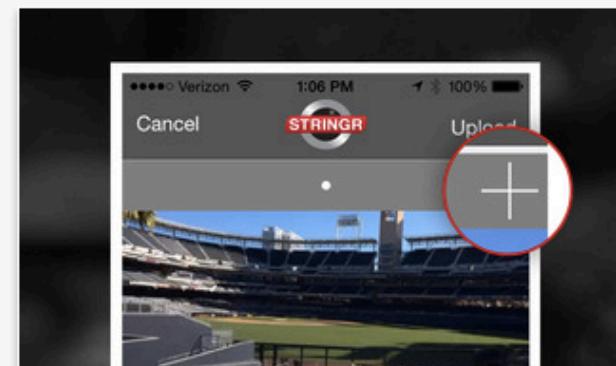
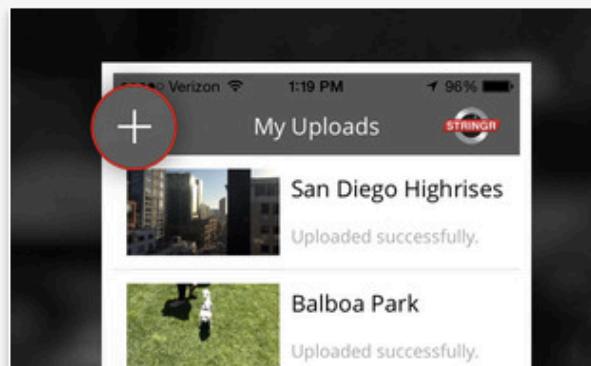
Crowd sourced video market place for news organizations seeking video from independent professionals, also known as "Stringers", hence the name of the app.

[Stringr Video Support ▾](#)

[...More](#)

### Screenshots

[iPhone](#) | [iPad](#)

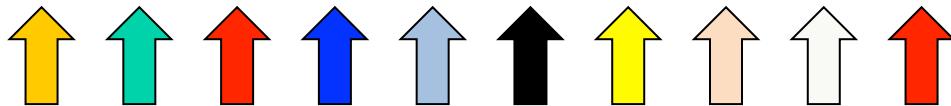


## Pull

How can we solve this particular problem?

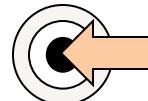
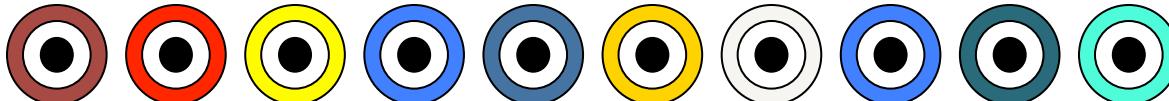
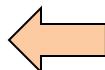


Which solution best meets the needs at attractive cost?



## Push

What can we do with our solution?





**Source:**  
U.S. Government,  
Whitehouse



**Photo:** Jesse Follow



**Photo:** Greg Goebel

T3 Motion Patroller electric scooters

# Value Creation in Innovation

1. Is the need real?



2. Does the solution meet the need?



3. Is the “customer” willing to pay more for the solution than it costs to deliver it?



Price – Cost  $\gg 0$



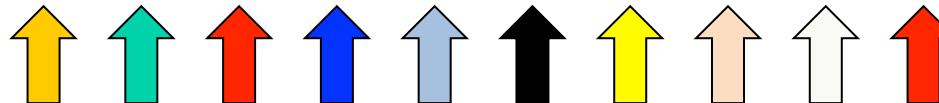
Photo: Segway

## Pull

How can we solve this particular problem?

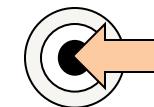
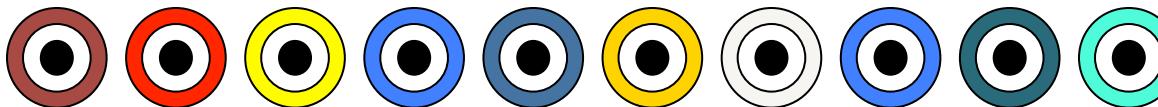
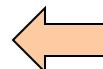


Which solution best meets the needs at attractive cost?



## Push

What else can we do with our solution?



(and... is our solution the best possible solution?)



## Another Flavor of “Push”

- Broad consensus in society that the goal is worthy (e.g., heavier-than-air flight, telephony, motion pictures, time travel)
- But, no actual customers expressing the need.
- Many, many innovators try to solve the problem. Eventually one or a few may prevail.
- A long time later, real markets emerge.

The Wright Brothers at Kitty Hawk, North Carolina, c1903



Source: US Library of Congress



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