

# Value of Data: There's No Such Thing As A Free Lunch in the Digital Economy

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*The 2018 IP Statistics For Decision Makers*

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# Motivation

## Value of Data

Example 1: Apple: share consumer data with app developers/30% commission/Revenue: US \$42.8 billion in past decade

Example 2: Farecast – **analytics service**/acquisition price: US \$110 million by Microsoft in 2006

vs. ITA Software – **data owner**

/acquisition price US \$700 million by Google in 2008

→ **Data driven business models**

→ **Online platform companies**

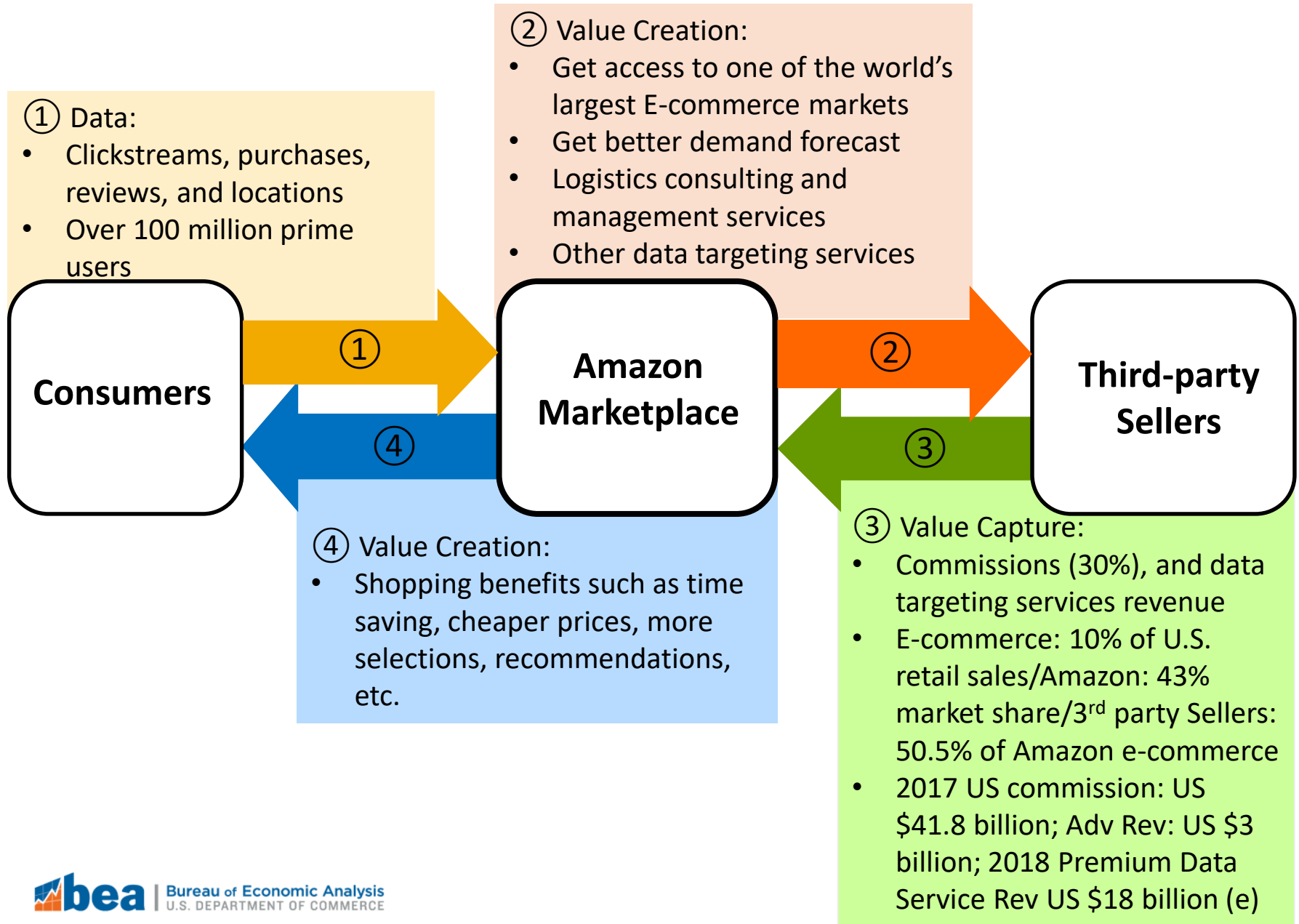
# Outline of the Talk

- Eight types of online platforms: 8 case studies

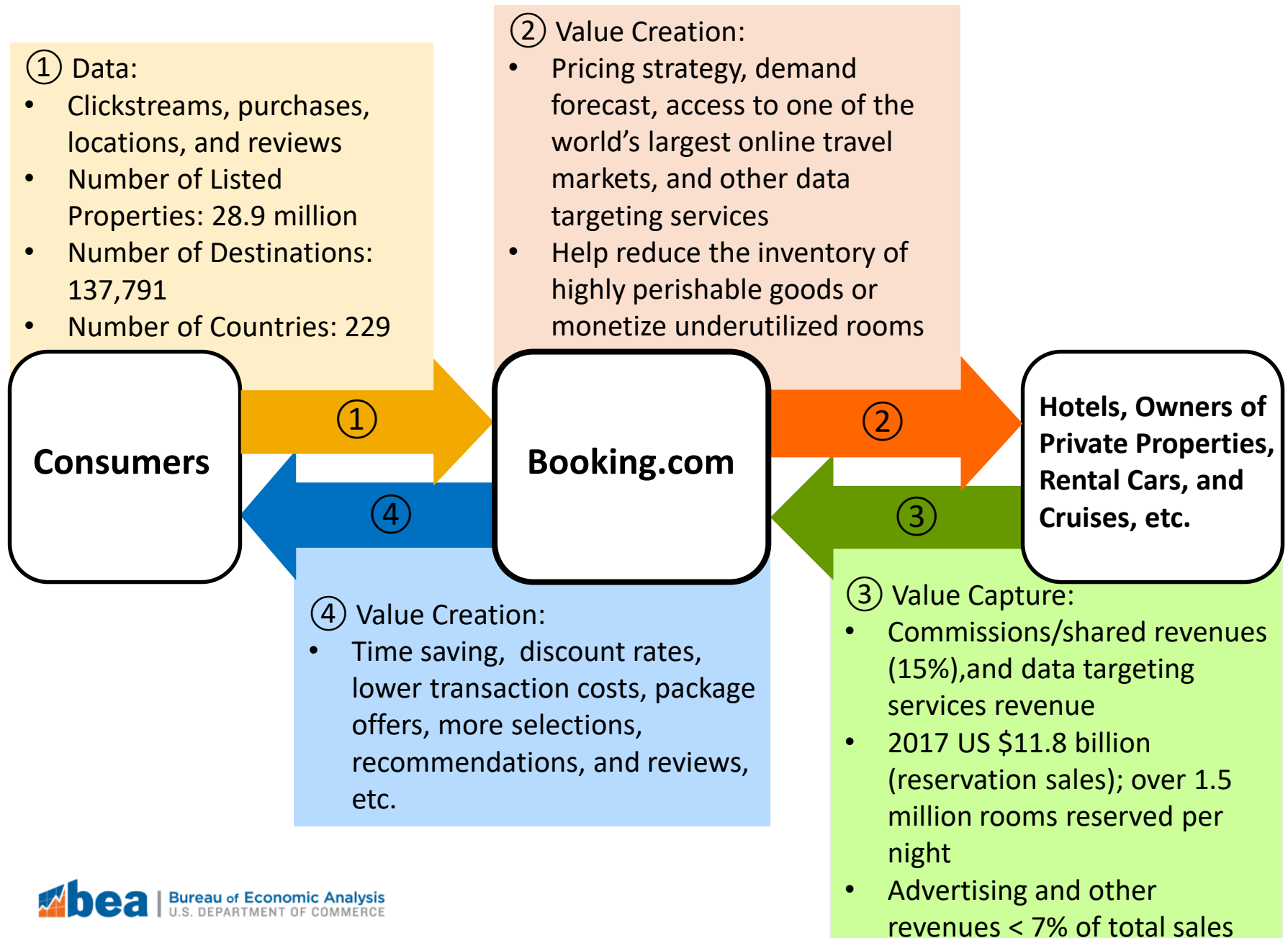
Definition of Online Platforms (European Commission, 2015): “an online platform is an undertaking operating in two- or multi-sided markets, which uses the internet to enable interactions between two or more distinct but interdependent groups of users so as to generate value for at least one of the groups.”

- Analyzed dimensions: business model, data flow, value creation for consumers, value creation for third parties, and how the online platform company monetize its data
- The Creation of the Value of Data and Data Value Chain
- Valuation of Data
- Key findings and future trends

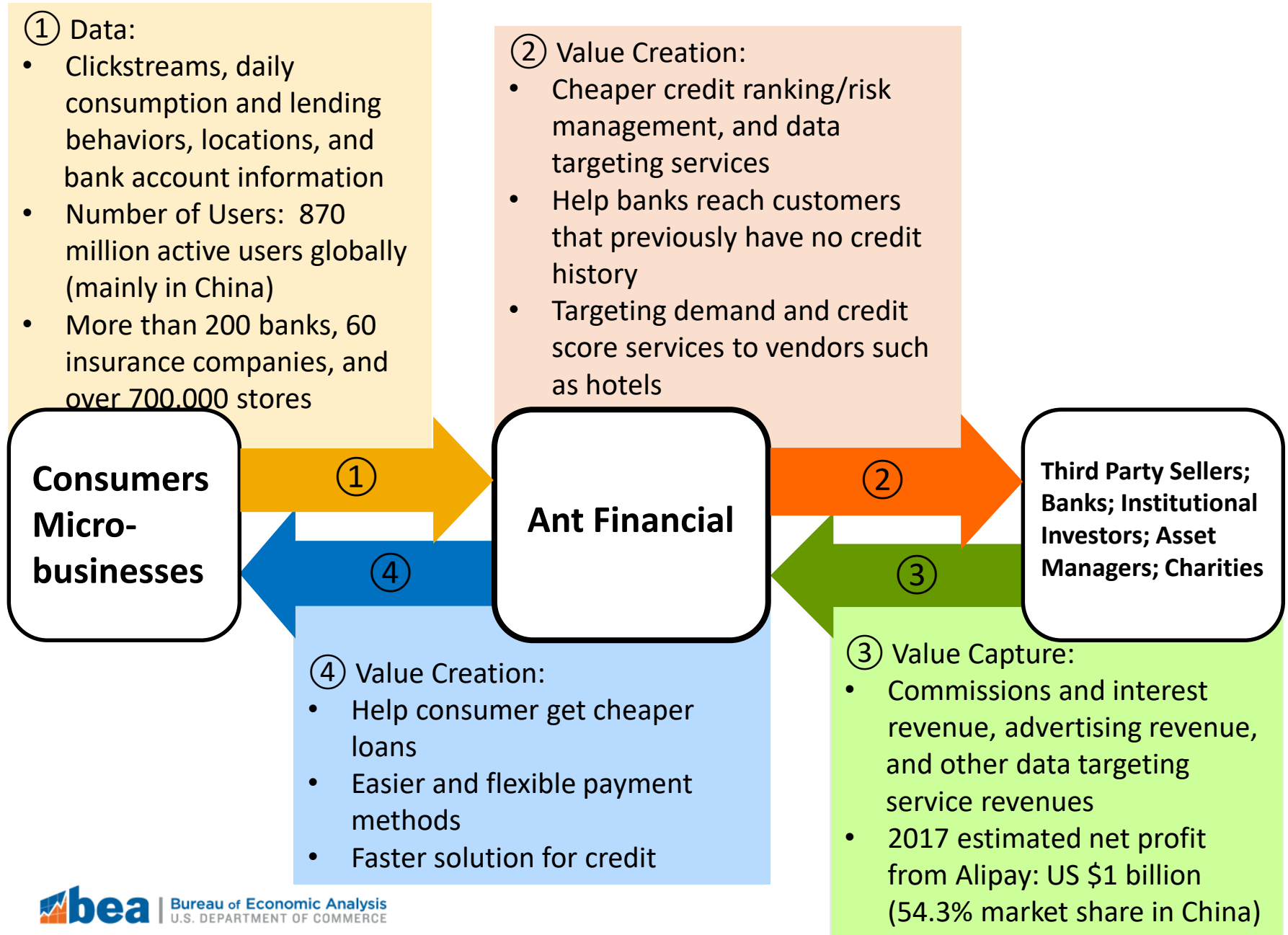
# Type I: E-commerce Online Platform



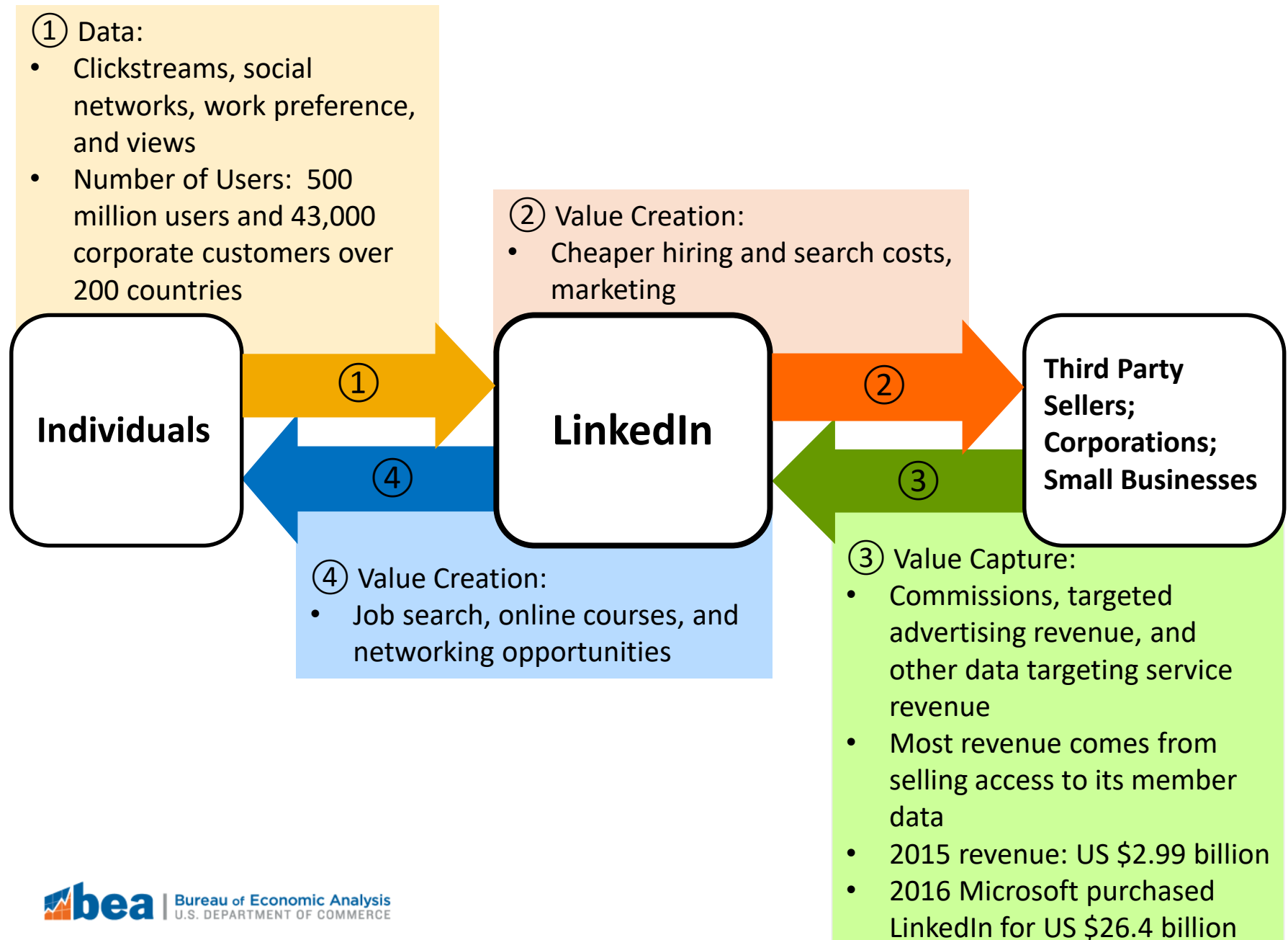
# Type II: Online Resource Sharing Platform



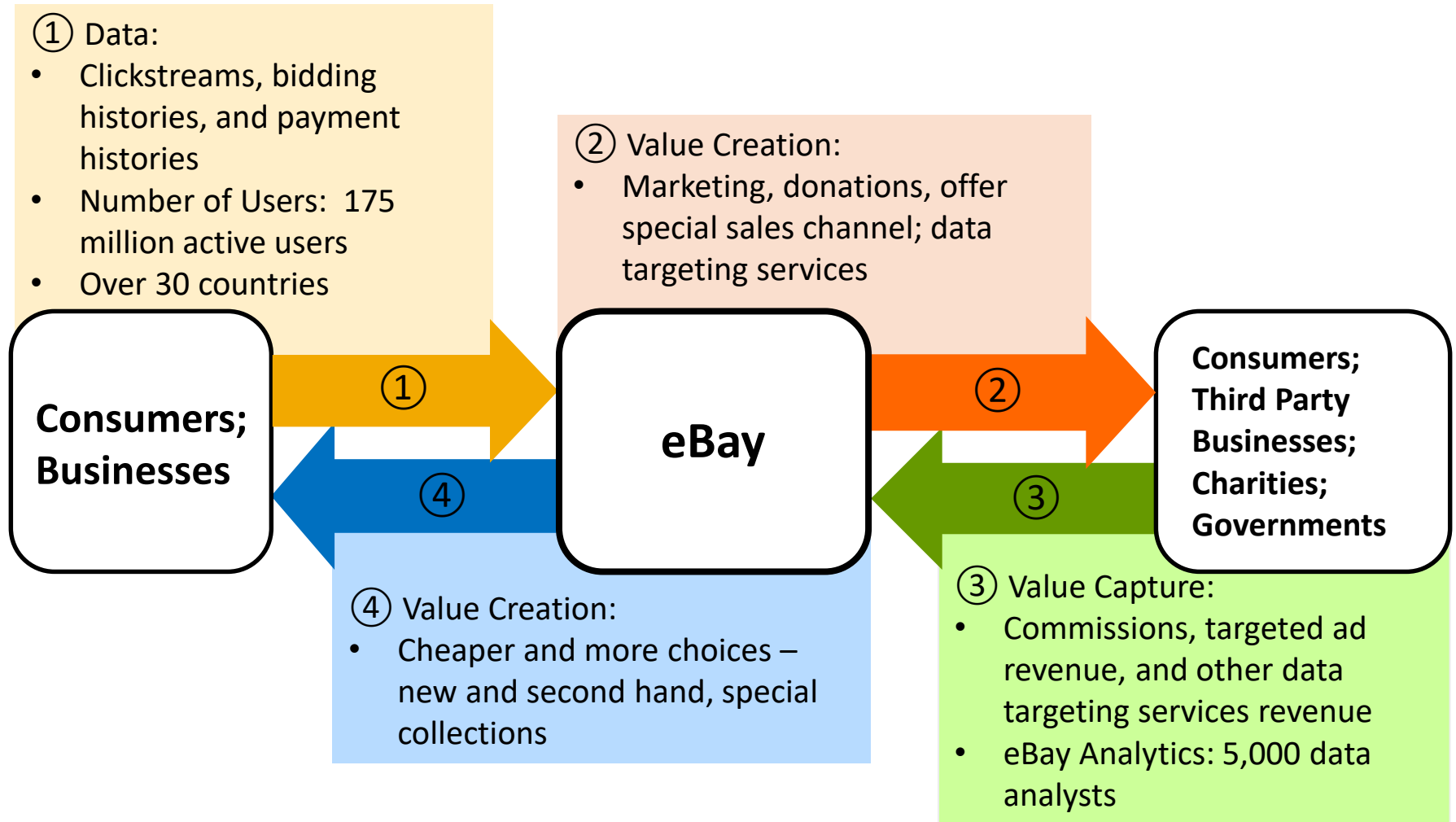
# Type III: E-financial Service Online Platform



# Type IV: Online Social Network Service Platform

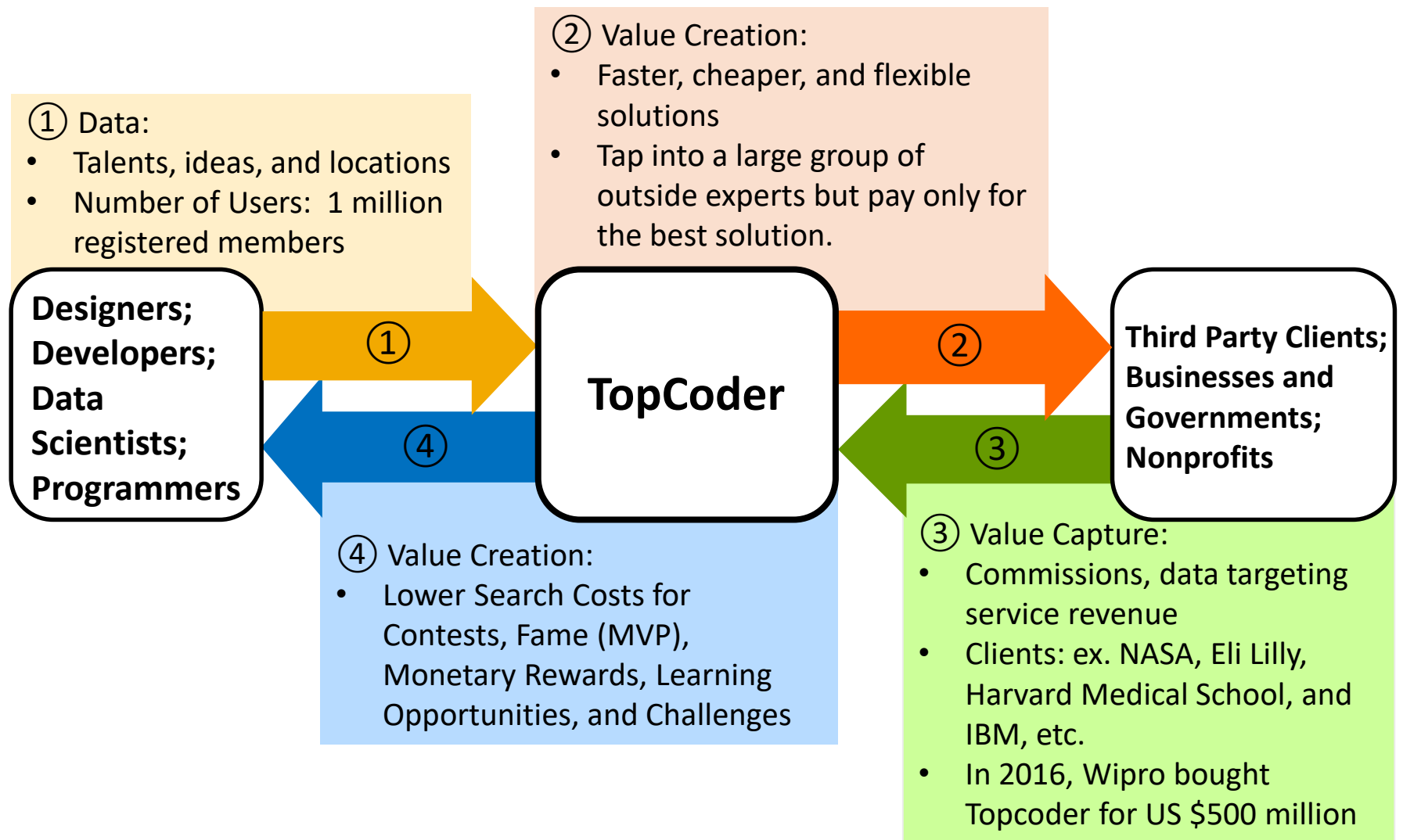


# Type V: Online Auction/Matching Platform

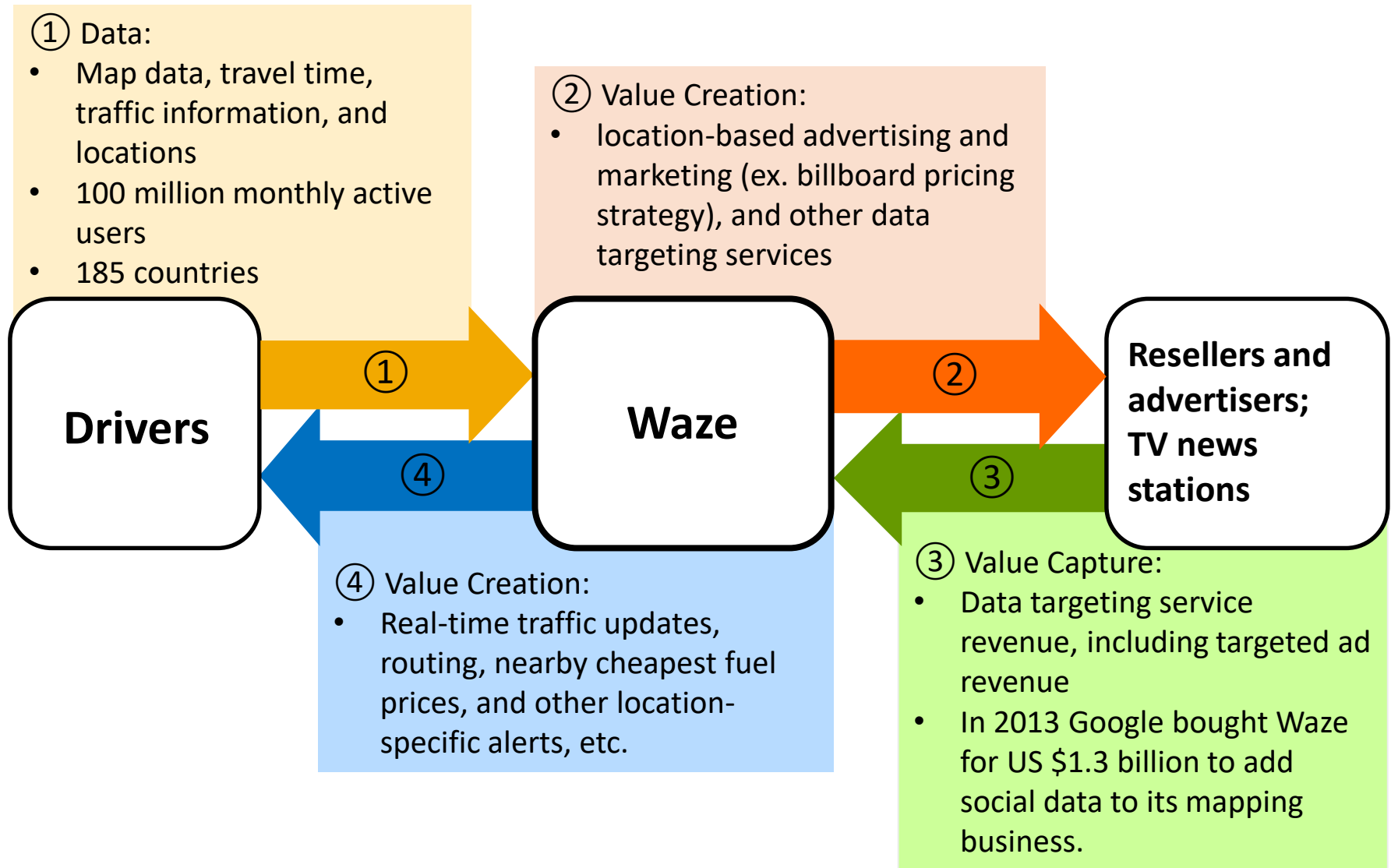




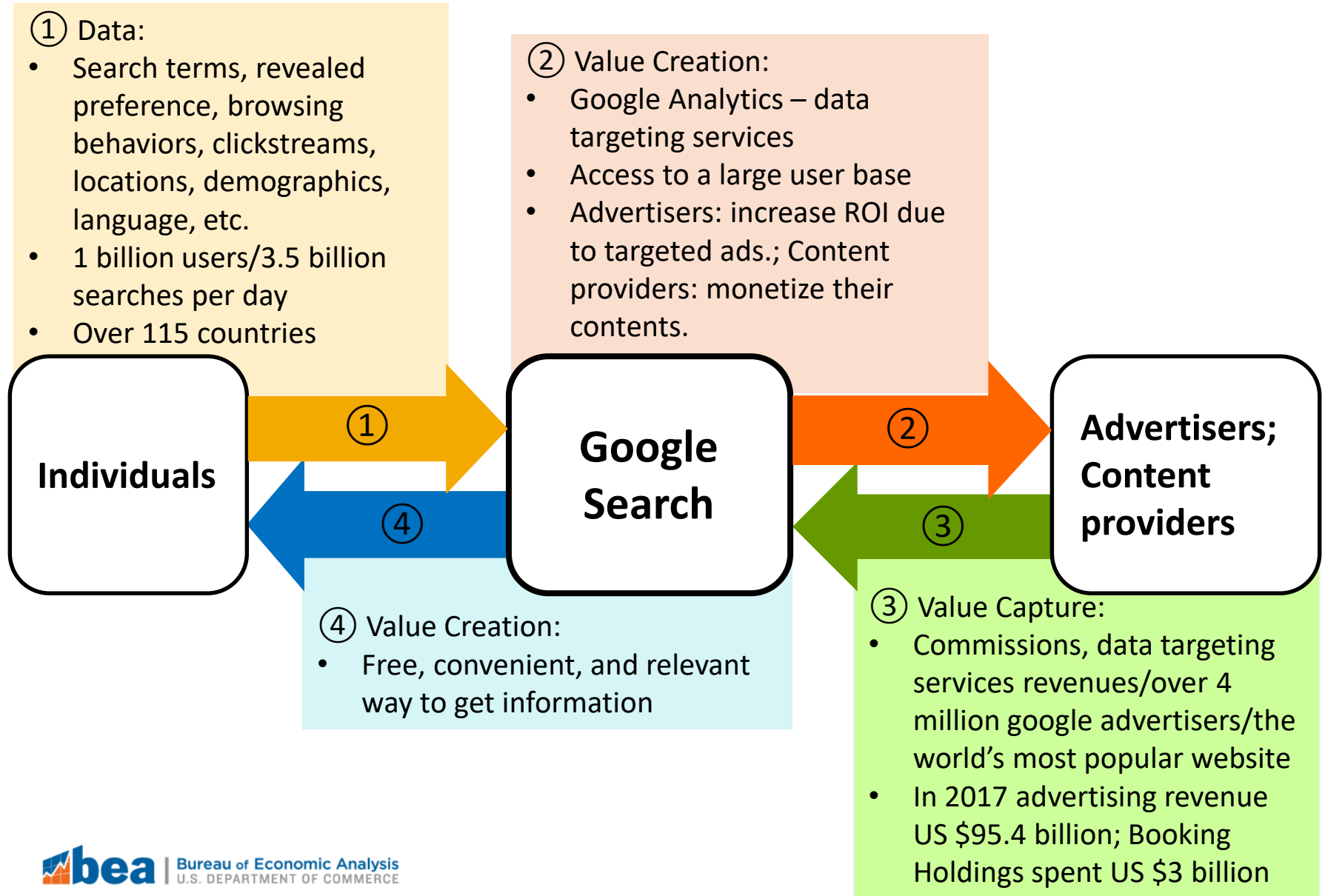
# Type VI: Online Competitive Crowdsourcing Platform



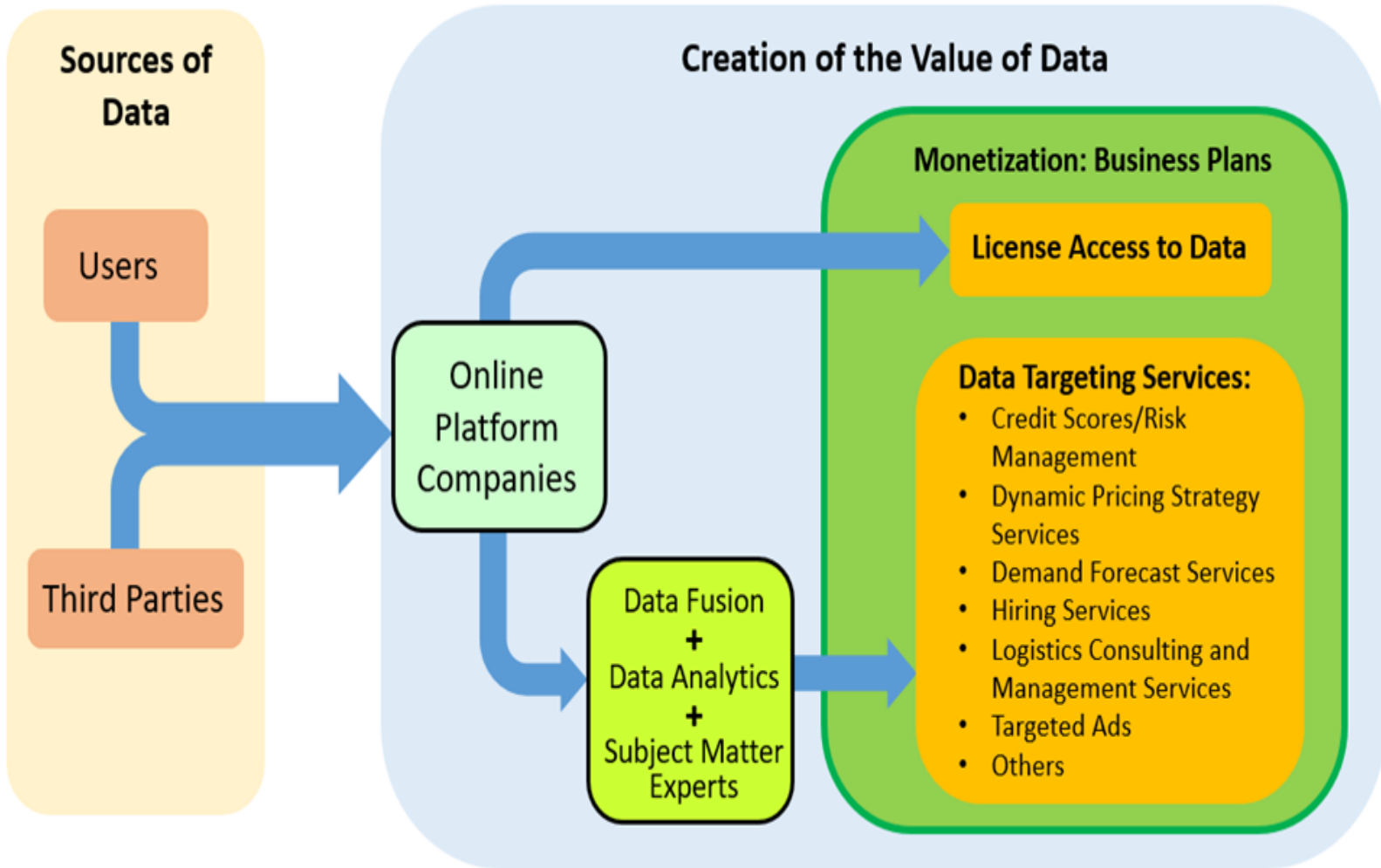
# Type VII: Online Noncompetitive Crowdsourcing Platform



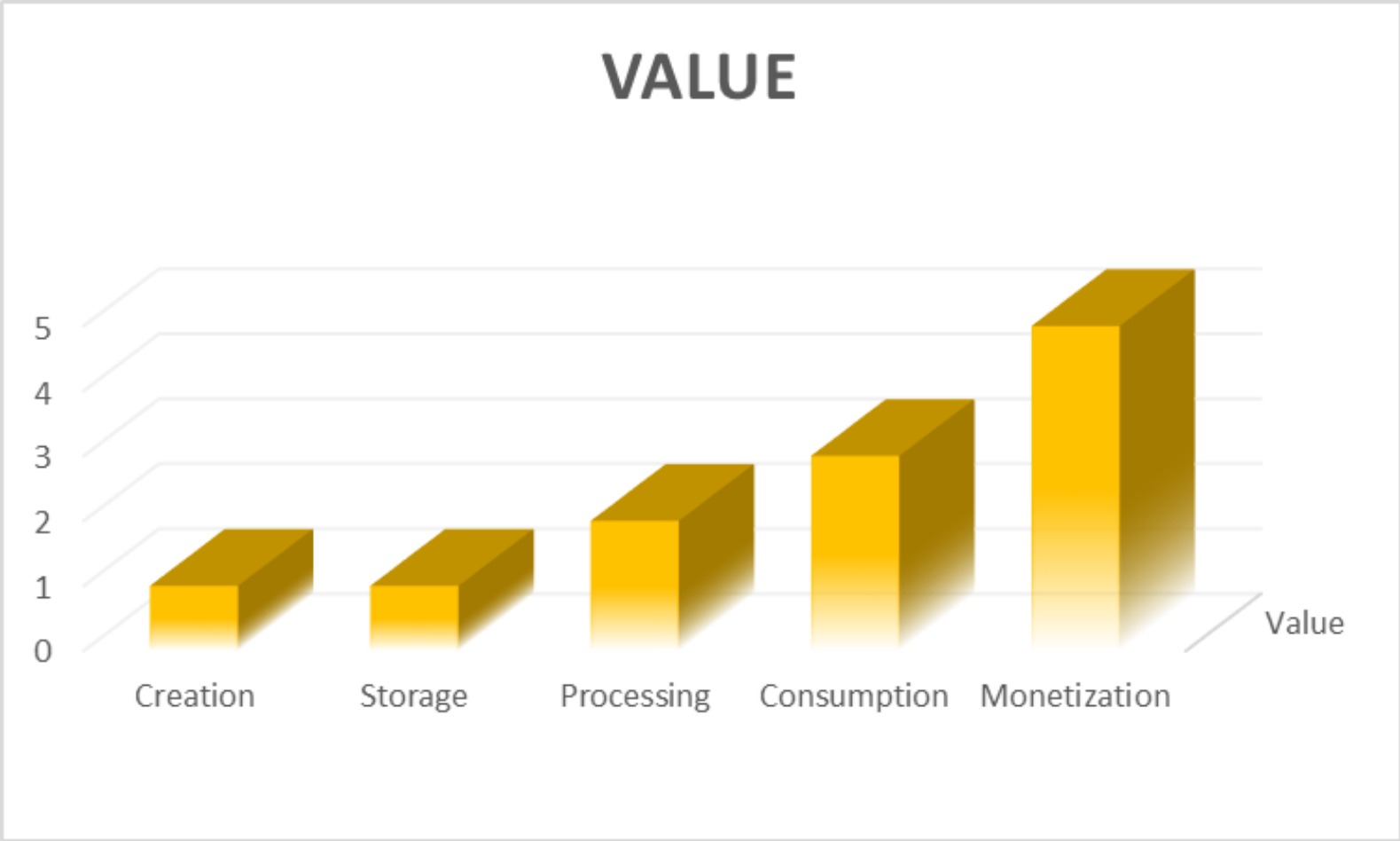
# Type VIII: Online Search Platform



# The Creation of the Value of Data



# Data Value Chain



# Case Studies:

## Estimations Based on Forward Looking Method

Type of Online Platform	Company	Annual Commission or Licensing Access to Data	Value Based Data-driven Business Model	Merger & Acquisition Price
E-commerce	Amazon	US \$41.8 billion (2017)	US \$125 billion; Annual Growth Rate: 35%	
Online Resource Sahrng	Booking	US \$11.8 billion (2017)	US \$15.7 billion; Annual Growth Rate: 40%	
E-financial Service	Ant Financial	No public financial statement.		
Social Network service	LinkedIn	US \$2.99 billion (2015)*		US \$26.4 billion by Microsoft in 2016
Auction/Matching	eBay		US \$16 billion; Annual Growth Rate: 30%	
Competitive Crowdsourcing	Topcoder	No public financial statement.		US \$500 million by Wipro in 2016
Non-competitive Crowdsourcing	Waze	No public financial statement.		US \$1.3 billion by Google in 2013
Search	Google	US \$95.4 billion (2017)**	US \$48.2 billion; Annual Growth Rate: 21.8%	

# Conclusion

- Online platform companies are data companies and our initial estimations show that the value of data they created can be tremendous.
- Online platform companies can vary in the degree of the vertical integration in the data value chain.
- The variation can determine how they monetize their data and how much economic benefits they can capture.
- Policy implications:

Corporate: investment, outsourcing, and competition strategies

Nation: trade and growth policy

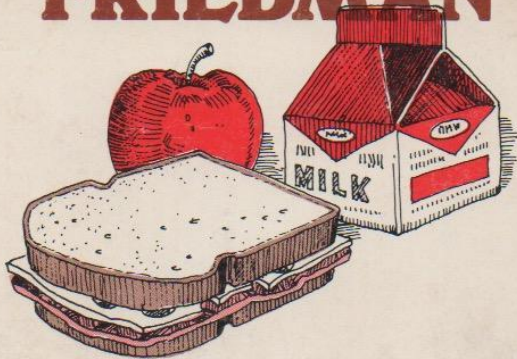
# Ongoing Projects

- Develop New Methodology: increasing marginal returns to the investments
- Survey Design: corporate data
- Market Structure vs. Licensing Strategy
- Theory on Welfare Analysis



# THERE'S NO SUCH THING AS A FREE LUNCH

MILTON  
FRIEDMAN



**ESSAYS ON PUBLIC POLICY**

Including Milton Friedman's *Playboy* interview

