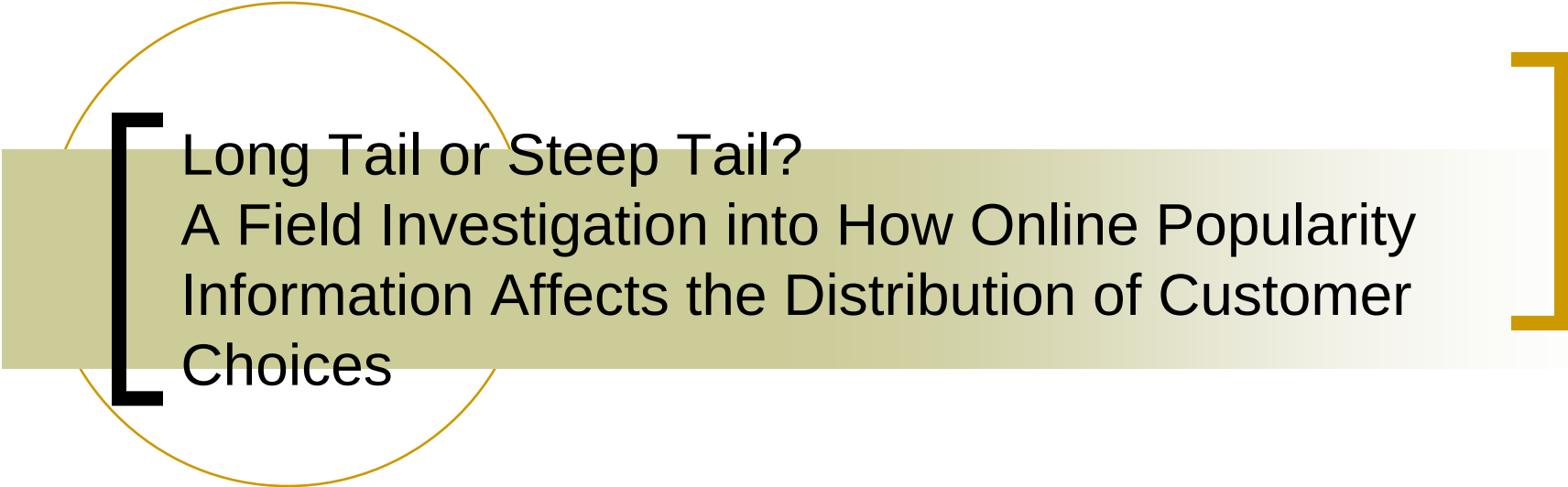


A decorative graphic consisting of a thin yellow circle and a horizontal bar with a yellow-to-white gradient. A large black left square bracket is positioned on the left side of the bar, and a yellow right square bracket is on the right side.

Long Tail or Steep Tail?

A Field Investigation into How Online Popularity
Information Affects the Distribution of Customer
Choices

Discussant: Nanda Kumar, UTD
SICS, Berkeley 2007

[Research Question]

- How does the availability of vendor popularity information affect customer decisions?
 - Customer decision – click or not to click on a vendor site | popularity information

[Findings]

- More popular vendors are clicked more often but less popular vendors do not become less popular
 - Evidence of steep tail effect but does not come at the expense of the long tail effect

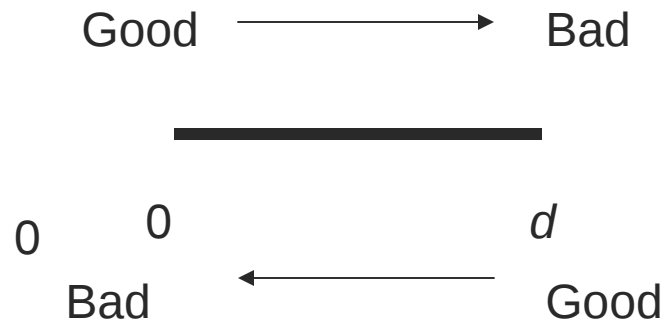
[Value of Popularity Information]

- Motivation for clicking
 - What is out there?
 - Learn from others - resolving quality/matching uncertainty
 - minimize search cost
 - More valuable if customers have similar preferences (products are vertical vs. spatially differentiated)
 - Heterogeneity in customer preferences
- Involvement
 - Do I care about product differences enough?
 - How much time do I want to spend?
- Risk preference
 - Customers with more internet experience are more likely to buy obscure products

Heterogeneity in Customer Preferences: An Analytical Illustration

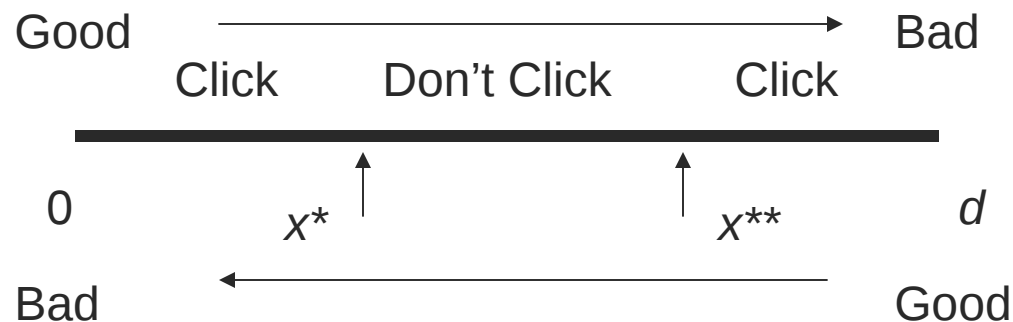
- Mass of m customers $\sim U[0, d]$
- Vendor location, $l = \{0, d\}$
- $Pr(l=0 \mid N, n_j, s) = \alpha_s$
- Consumers' utility fn:
 - $U(x|r, p, t) = r - t x - p$
- Click only if you are likely to get non-negative utility from consumption

Case I: Customer Preferences not too Heterogeneous



- $r - t d - p > 0 \Leftrightarrow d < (r - p)/t$
- $EU(.|\alpha_s) = r - \alpha_s t x - (1 - \alpha_s) t (d - x) - p > 0$
- # of clicks generated: m
- Implication: If d is small and/or t is small full market coverage – everyone clicks

Case II: Customer Preferences Sufficiently Heterogeneous



- $x^* = (r - (p/\alpha_s))/t$, $x^{**} = d - (r - (p/(1-\alpha_s)))/t$
- # of clicks: $(m/dt)[(r - (p/\alpha_s)) + (r - (p/(1-\alpha_s)))]$
- $d \uparrow$ and/or $t \uparrow$, # of clicks: $\downarrow$
 - Click behavior critically depends on the assumption
- Popularity information (α_s):
 - $\alpha_s \uparrow$, # of clicks: $\uparrow$, if $\alpha_s < 1/2$

[Take Aways]

- Spatially differentiated markets:
 - If consumers don't care about product differences (small t) and/or vendors are not too differentiated (small d) popularity information doesn't matter
 - If the reverse is true – popularity information has an inverted-U/V effect on # of clicks

[Concluding Remarks]

- Value of popularity information
 - What do I learn from the behavior of others?
 - More valuable in vertically differentiated markets
 - Information structure
 - Computing α_s ?
 - May need information on identity of consumers that clicked
- Clicks necessary but not sufficient for sale/profit