ONLINE AUCTION FORMATS

MS&E 239 Class Presentation

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Online Auction

- Widely used market model

- Factors favoring use:
  - Easy to operate – bid with a click
  - Well defined rules – easy to understand, easy to provide proof of sale
  - Enables fast price discovery
Online Auction

Two examples:

• eBay

• Swoopo
eBay

• Online marketplace – meeting point for sellers and buyers
• Founded in 1995
• 97 million active users in Q2'11
• Business model:
  − Insertion fee: (fee to list an item) $0.10 – $2
  − Final value fee: for each sale, eBay takes 5% – 13%
• Net revenue from marketplace in Q2'11: ~$1.2 billion
eBay auction format--Overview

- **Form of a “Second-price auction”**
  - Seller posts an item, and sets a fixed time limit
  - Each buyer makes a bid
  - When time runs out, highest bidder wins and pays second highest bid (+ some fee)

- **Sellers can set reserve price**
  - Highest bidders gets the item only if her bid is greater than reserve price.
  - If second highest bid is less than reserve, then she pays the reserve price.
Batman 251 F++ (6.75) 9/73 Joker cover & story! Neal Adams cover&art! No Reserve!

Item condition: --
Time left: 21h 57m 24s (Oct 04, 2011 23:22:21 PDT)
Bid history: 11 bids

Current bid: US $25.00
Your max bid: US $ (Enter US $25.00 or more)

Shipping: $3.50 Expedited Shipping | See all details
Delivery: Estimated between Sat, Oct. 8 and Tue, Oct. 11
Returns: 7 days money back, buyer pays return shipping | Read details

eBay Buyer Protection
Covers your purchase price plus original shipping.
Learn more
Example

• Suppose seller posts an item with a reserve price $1, and let bidding increments be $0.1

• Let bidder A bid $5
  – eBay displays current winning bid as $1
  – Current winner as bidder A

• Suppose bidder B comes and bids $2
  – eBay displays current winning bid as $2.1
  – Current winner as bidder A
Example

- Next, suppose bidder C bids $7
  - Ebay displays current winning bid as $5.1
  - Current winner as bidder C

- Current winning bid
  - = reserve price, if no other bid is higher than reserve;
  - = Smallest bid greater than second highest bid.
Complications

- Product quality
  - Sellers build reputation through feedback from buyers

- “Buy it now” option
  - Buyers may not bid, but instead choose to pay higher price for guarantee of getting the item
Batman Legends of Dark Knight #1 ('89) VF/VF+ blue

Item condition: --
Time left: 4h 24m 13s (Oct 04, 2011 05:41:16 PDT)
Bid history: 0 bids

Starting bid: US $0.99
Your max bid: US $  
(Enter US $0.99 or more)

Price: US $1.99

Shipping: $2.99 Expedited Shipping  See discounts  |  See all details
Returns: 7 days money back, buyer pays return shipping | Read details

eBay Buyer Protection
Covers your purchase price plus original shipping.

Learn more
Swoopo
Swoopo

- Launched around 2005, with current name from 2008
- Employs a form of “penny auction”
- Bidders buy bids, and each bid increments the price by a fixed increment.
  - Each bid costs $0.60
  - Each bid increases price by 1c–12c
- Auction is timed, but each bid extends the auction by 10–20s
- When auction ends, highest bidder wins.
Penny auction: Example

• Suppose the item to be sold is 1$

• Ignore bidding fee (bids cost $0). But you must pay what you bid (even if you lose).

• You can bid repeatedly; each bid increases price by 1c.

• How would you bid?
Penny auction: Example

- Two bidders A and B
- Suppose A has bid 1c, and B has bid 2c.
- A has two choices:
  - If A does not increase her bid, loss = 1c
  - If A bids 3c and wins, profit = 97c.

Hence, A bids 3c
Penny auction: Example

- But B can use the same argument:
  - Do not increase bid: loss = 2c
  - Increase bid to 4c: profit = 96c
- B increases bid to 4c and the bidding up continues.

- What happens when bids reach 1$?
Penny auction: Example

- Suppose A has bid 99c, B has bid 100c
  - A does not increase bid: loss = 99c
  - A increases bid to $1.01: loss = 1c
- A will increase bid to $1.01 (and this continues forever)
- Bidders may end up paying much more than $1 for getting $1
- In practice, bidders stop because of budgets, and because bids are costly.
Penny auction: Example

• In penny auctions, the market organizer can make huge profits.

• Example (from Wikipedia):
  – MacBook Pro (worth $1799) sold for $35.86
  – But Swoopo made $2151 from bidding fees alone.
Criticism

• Gambling
  – “Entertainment”

• Legality?
  – Swoopo is currently inactive, possibly due to legal challenges.
  – Many similar websites are in operation
Thank You