



## NBA 600

### Long Tail and Online Retail

Class 8, Wed 11/7

Prof. Dan Huttenlocher

## Administrative

- Quiz #2 on Monday
- Recap, final projects
  - In-class final presentations, Wed 11/28
    - Okonmah, Farhangi, Figliani – Digital Music
    - Golden, Slowik, Wilks – Virtual Worlds Retail
    - Lim, Moth, Johnson – Patient Health Records
    - Fritz, Adelco, Chang – Digital Banking
  - Others hand in final paper, 12/7 by noon



2

## Long Tail

- Large (unlimited) selection
  - Yield more total sales from many “niche markets” at “bottom” of catalog than “top”
- Lower price
  - Be profitable through lower cost structures of digital delivery, on-demand creation
- Hits matter
  - Items found by consumers through online search and community software, starting from widely known hits



3

## What's New With Long Tail?

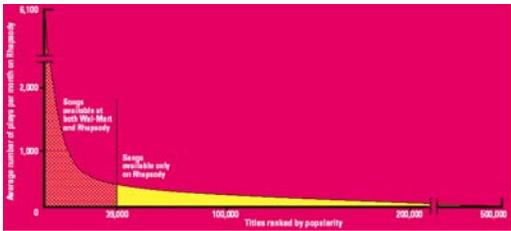
- Scale: digital age making feasible to offer very large selection
  - Traditional catalog might have 10x the items in a store
  - Amazon often has 100x or more
  - Online delivery can make it feasible to have thousands or millions of times the items
- Low fulfillment costs
  - Digital storage cheap and getting cheaper
  - Delivery totally automated, no “warehousing”



4

## Anatomy of The Long Tail

- Plot of sales rank versus number of sales
- Power law distribution




5

## Getting the Most from the Long Tail

- Make everything available
  - No such thing as “out of print”
- Cut prices
  - Particularly for items further down the demand curve, to draw more demand
- Help with search
  - Hit items are important because they are widely known but still need good means of linking to related items
    - Online communities that lead from hits to less known works



6

## Long Tail Backlash

- Lee Gomes, technical writer at WSJ
  - Not much in the tail
  - 2.7% of Amazon titles generate 75% of revenue so long tail not real
    - Anderson's response: "infinite catalog" makes top a smaller percentage, larger denominator
    - Amazon and Rhapsody generate 20-40% sales from non-hits
- Nick Carr
  - Possible negatives of unbundling, reducing choice because "trash hits" no longer support "quality nonhits"

## Importance of Online Community

- Search and recommendations drive demand from the hits to other items
- Drive demand from newly discovered items to other items
- Online retailing largely about search and community
  - Have to be good at inventory, fulfillment, customer satisfaction, but not enough to win
  - Much as package freight in 1975-2000 was largely about information not just delivery

## Amazon.com

- Launched in July 1995 with two goals
  - World's largest selection of books
    - High value given large number of titles
  - Convenience that delights the customer
- Now a broad-based online retailer
  - Core "media" business (books-music-video)
  - Sales of \$9.7B, ttm
  - 24% quarterly revenue growth, y-o-y
  - Decreasing profits as invest more heavily in technology and new lines of business

## What Amazon Provides

- Online storefront – user experience
  - For own stores as well as partners and Marketplace merchants
  - Extensive focus on user experience
    - Driven many innovations, adopted others
    - Total interaction up to receipt of goods
- Payment processing
- Fulfillment
  - Via own warehouses and partnerships with distributors
  - Close integration with shippers (UPS, Fedex)

## Amazon Major Online Retailer

- In addition to own site, operates sites for many retailers
  - E.g., Borders (ending), Target
    - Some retailers have completely outsourced their online presence to Amazon
    - E.g., Target started with just front-end but switched to complete solution, recently extended
- Sales partnerships with other large and small merchants, now 30% of sales
  - E.g., Gap, Office Depot, Eddie Bauer, Circuit City, Nordstrom

## How Amazon Got There

- Relentless focus on its two main goals
  - Selection and convenience
- Required a certain scale of business to provide large selection profitably
  - In early years pursued growth necessary to achieve that scale
  - Did not scale business at expense of convenience (delighting the customer)
  - Grew quickly but leveled off after 2000
  - Next wave of growth largely from partnerships

## Amazon Focus on Customer

- Company seeks employees with customer focus – not just in customer facing roles
  - Including software developers
- Continuous testing in their usability lab
  - Entire experience, not just Web interaction
  - Tradeoff of new features versus clutter
  - Experiments with live site
  - Metrics to evaluate each change
- Leading the customer carefully
  - Ease fears by making one-click easy to cancel

## Customer Experience at Amazon

- Search
  - People often know what looking for, make it easy to find
- Personalization
  - Get to know the customer and help them find new things they may not have explicitly been looking for
- Customer reviews and rankings
  - Create a sense of community and interest in items

## Customer Experience (Cont'd)

- Convenience
  - Make purchase, delivery and returns easy and dependable
- Customers as allies, friends' circle
  - Give people opportunities to earn credits when they refer purchasers
  - Important for profiting from "Long Tail"
- Sales partners
  - Provide customers with benefits of multiple vendors all within familiar and safe Amazon environment

## Value of Information

- Amazon customer service largely about information sharing
  - Information can have high value as part of product or service (e.g., FedEx)
  - Value may not be easy to capture as revenue
- Important to explicitly understand where value is and how to get paid for it
  - Can be difference between large business and nothing
    - E.g., search engines rapidly grew to billions in revenue after introducing keyword bidding

## Bringing Customer Inside

- Better customer loyalty by providing more information
  - Adding value for the customer, such as package tracking, recommendations, referrals
- Save money by informing customer more effectively and efficiently
  - Customers want access to information, what is it costing you to provide it
- Learn more from the customer
  - Don't let intermediaries become more knowledgeable than you

## Bringing Customer Inside

- How important to Amazon, Fedex (others?)
  - Sharing information to increase loyalty and lower costs
- How broadly applicable?
  - Retail, banking, package delivery, ...
- What benefits and to whom?
- When provides sustainable advantage?
  - Worthwhile even if not?
- Industries where opportunities to do so?

## Problems Bringing Customer In

- Can directly expose customer to internals of how company operates
  - Harder to hide problems/errors
  - May make easier for customer to compare with other providers (commoditization risk)
- High standards for system performance
  - Constant availability
  - High variability in load
  - “Real time” nature of information
    - Potentially including connections to suppliers or partners

## Amazon's Competitive Positioning

- Now and in the 1990's
  - Substitutes
  - Barriers
  - Supplier power
  - Customer power
  - Industry rivalry
- Customers gaining power with search engines
- Barriers have grown higher as Amazon developed expertise

## Challenges for Amazon

- Importance of search in customer experience
  - Search engines, Google, get between them and customer
- Growth of online delivery of their core inventory – books, music, video
  - New competitors such as Apple's iTunes, cable companies selling content
  - Shift of software from goods to services
- Compromising brand with sales partners
  - Confusion with EBay, independent sellers

## Next Time

- Google and beyond
  - Read about how adwords and adsense work
  - Read article from Technology Review on search