# CS155a: E-Commerce 

Lecture 9: October 4, 2001

Introduction to B2C E-Commerce
Acknowledgement: H. Chiang

## Definitions of E-Commerce

Electronic commerce is a set of technologies, applications, and business processes that link business, consumers, and communities

- For buying, selling, and delivering products and services
- For integrating and optimizing processes within and between participant entities


## What is B2C?

- B2C Commerce: Interactions relating to the purchase and sale of goods and services between a business and consumer-retail transactions.
- "Novelty" is that retail transaction is done on the Internet, rather than in a "brick and mortar" store location.
- Technical evolution of B2C from "brick and mortar" model not new.


## A Different Approach to Location Retailing

- In 1886, a jeweler unhappy with a shipment of watches refuses to accept them.
- A local telegraphy operator buys the unwanted shipment.
- Uses the telegraph to sell all the watches to fellow operators and railroad employees.
- Becomes so successful that he quits his job and started his own enterprise, specializing in catalog sales.
- Name: Richards Sears of Sears Roebuck


## Revenue Models

- Sell goods and services and take a cut (just like B\&M retailers). (e.g., Amazon, E*Trade, Dell)
- Advertising
- Ads only (original Yahoo)
- Ads in combination with other sources
- Transaction fees
- Sell digital content through subscription. (e.g., WSJ online, Economist Intelligence Wire)


## E-Commerce Retail Sales




## Estimated Quarterly U.S. Retail Sales: Total and E-commerce

| Data in millions of dollars. Not adjusted for seasonal, holiday, and trading-day dififerences. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Retail Sales |  | E-commerce as a Percent of Total Sales | Quarter to Quarter Percent Change |  |
|  | Total | E-commerce |  | Total Sales | E-commerce Sales |
| 4Q 1999 | 821,351 | 5,198 | 0.63 | 8035 | NA |
| 1Q 2000 | 747,934 | 5,240 | 0.70 | -8.9 | 0.8 |
| 2Q 2000 | 815,677 | 5,526 | 0.68 | 9.1 | 5.5 |
| 3Q 2000 | 812,158 | 6,393 | 0.79 | -0.4 | 15.7 |
| 4Q 2000 | 856,234 | 8,686 | 1.01 | 5.4 | 35.9 |
| Source: Commerce Dept. |  |  |  |  |  |

## Top Ten U.S. Purchase Categories



## First-Generation B2C

- Main Attraction: Lower Retail Prices
- "B2C Pure Plays" could eliminate intermediaries, storefront costs, some distribution costs, etc.
- Archetype:
www.amazon.com



## Amazon.com

- Full Name: Amazon.com, Inc.
- Employees: 9,000
- Stock Price:


## amazon.com.

- $\$ 6.76$ (at close October 3, 2001)
- 52 Wk Range: $\$ 5.51$ to $\$ 40.87$
- 2000 Sales \$2,762 M 1-Year Sales Growth: 68.4\%
- Internet's largest retailer. Best known for books, CDs, DVDs, and Videos.


## Brand Strength

## Source: U.S. Bancorp Piper Jaffray (July 24, 2000)

|  | Company | Mind Share | Company | Company <br> Online <br> Purchaser <br> Share |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Amazon.com | 24.1\% | Amazon.com | 18.7\% |
| 2 | eBay.com | 16.1\% | eBay.com | 15.8\% |
| 3 | Yahoo.com | 4.9\% | BarnesandNoble.com | 6.0\% |
| 4 | priceline.com | 2.7\% | BMG.com | 3.9\% |
| 5 | buy.com | 1.9\% | CDNow.com | 3.3\% |
| 6 | BarnesandNoble.com | 1.8\% | ColumbiaHouse.com | 3.1\% |
| 7 | CDNow.com | 1.3\% | JCPenney.com | 3.0\% |
| 8 | AOL.com | 1.1\% | priceline.com | 2.7\% |
| 9 | Egghead.com | 1.0\% | buy.com | 2.6\% |
| 10 | Iwon.com | 0.9\% | Yahoo.com | 2.3\% |
|  | JCPenney.com | 0.9\% | 1800flowers.com | 2.3\% |

## Main Lines of Business

- Retail
- Broad product range, from textbooks to household tools
- Shopping Mall
- Individuals and companies pay Amazon.com to offer their products on its site.
- "Overseeing" other websites
- Has invested in some of them
- Broad range of offerings, from prescription drugs to wedding planning
- 2000 Sales
- $71 \%$ books, CDs, DVDs, Videos
- 78\% US


## Amazon.com History

- Founded: 1994
- Website launched: July, 1995
- 1997
- IPO: 3 million shares, $\$ 54.0$ million
- Moves to "cement the Amazon.com brand."
- Becomes the sole book retailer on America Online's public website and on Netscape's commercial channel.


## History (continued)

- 1998: Expansion
- Launched online CD and video stores.
- Began selling toys and electronics.
- Bought online booksellers in the UK and Germany.
- Bought Internet Movie Database.
- Expanded online services, buying Junglee (comparison shopping) and PlanetAll (address book, calendar, reminders).
- Attracted so much attention that its market capitalization equaled the combined values of profitable bricks-and-mortar rivals Barnes \& Noble and Borders Group, even though their combined sales were far greater than Amazon's.


## History (continued)

- 1999: More Expansion
- Raised $\$ 1.25$ billion in a bond offering.
- Spending spree with deals to buy all or part of several dot-coms
- Some have since been sold (HomeGrocer.com), and others have gone out of business or bankrupt -- Pets.com, living.com
- It also bought the catalog businesses of Back to Basics and Tool Crib of the North.
- Began conducting online auctions and partnered with Sotheby's.
- Added distribution facilities, including one each in England and Germany.


## History (continued)

- 2000: Yet More Expansion
- Placed a link to drugstore.com on its homepage; drugstore.com paid more than $\$ 100$ million for that access.
- 10-year deal with toysrus.com to set up a co-branded toy and video game store.
- Added foreign-language sites for France and Japan.


## 2001: End of the Beginning

Percent Growth From Same Quarter Previous Year Source: SEC Filings

- Amazon announces plans to restructure and layoff of $15 \%$ of its workforce.
- Takes a $\$ 150$ million charge.
- Announces a deal with Borders to provide inventory, fulfillment, content, and customer service for borders.com



## Amazon.com, Inc. Stock Quotes (AMZN)

Source: Quicken.com (10/3/2001)


## Amazon.com, Inc. Financials

Historical Financials
—Net Income (\$mil.)


## Financials and Employees ("Long March to Profitability")

Source: Hoovers and SEC Filings

| Year | Revenue <br> (\$mil.) | Net Income <br> (\$mil.) | Net Profit <br> Margin | Employees |
| :---: | :---: | :---: | :---: | :---: |
| 2001 (1Q-2Q only) | $1,367.9$ | -402.5 |  |  |
| 2000 | $2,762.0$ | $-1,411.3$ |  | 9000 |
| 1999 | $1,639.8$ | -720.0 | 7600 |  |
| 1998 | 610.0 | -124.5 | 2100 |  |
| 1997 | 147.8 | -27.6 | 614 |  |
| 1996 | 15.7 | -5.8 | 151 |  |
| 1995 | 0.5 | -0.3 | 33 |  |
| 1994 | 0.0 | -0.1 |  |  |

## Reminder: Homework For October 9, 2001

- Second written homework assignment is due in class Tuesday.
- Covers readings and lectures through 10/4/2001.
- Available online at
http://www.cs.yale.edu/~vijayr/cs155/hw2.pdf

