

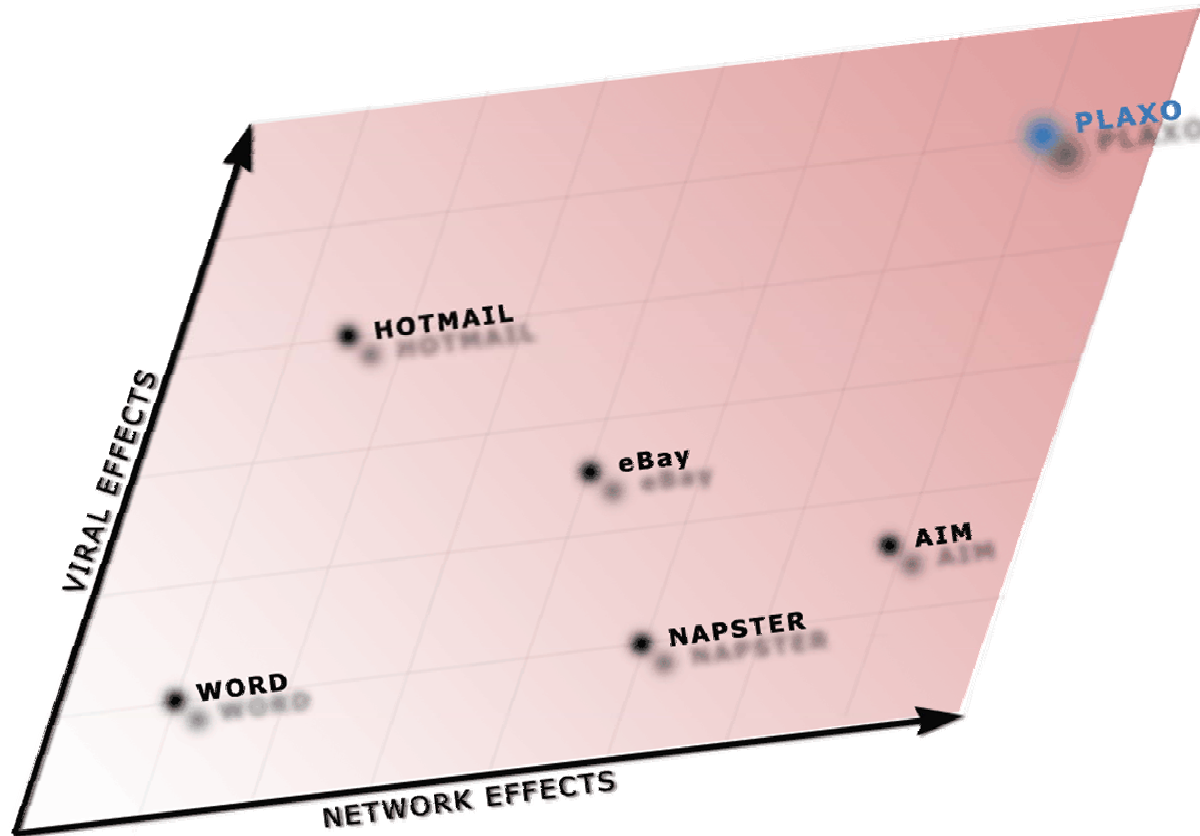


Internet Economics

Market Trends and Analysis

Stanford University, April 29, 2003

Viral vs. Network Effects

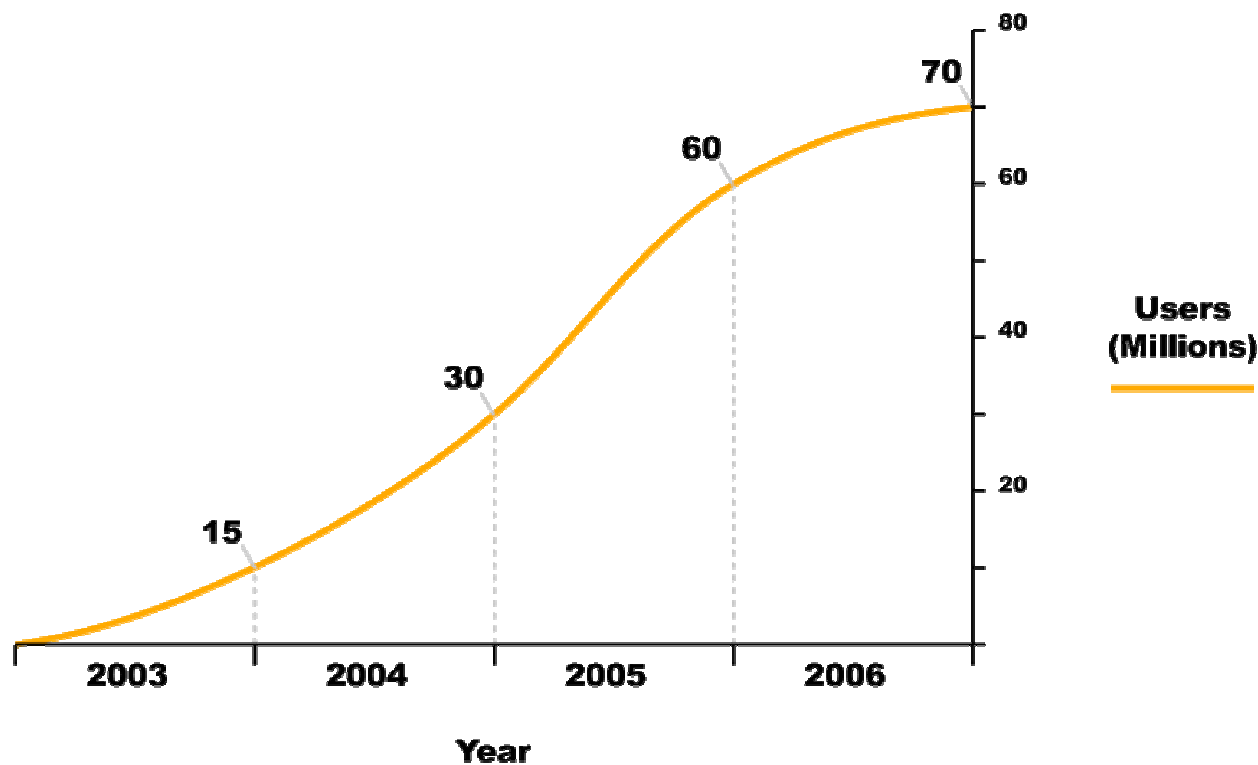




Organic Propagation

	Payload Size	Fecundity	Inducement Strength	Customer Cost
Hotmail	Small	High	Low	Low
PayPal	Small	Low	High	High
Secure Email	Small	Low	High	High

User Growth Curve - *Key Success Factor!*



Different Paths to User Growth

- **Netscape...**
Zero to 70 million users download in two years.
- **eBay...**
organic word of mouth; buyer/seller feedback rating system led to increased listings.
- **AOL...**
simplicity of sign-on; mass distribution of disks/CDs.
- **Amazon...**
associates program increases links to Amazon; customer-friendly features like one-click checkout; customer delight (customer service excellence).



Economics of User Growth

- Cost of customer acquisition must be low.
- Need innovative ways to reach users (each successful company did something unique).
- Develop user experience that leads to repeat visits. Length of site visit less important than repeat visits.
- Define the Life Cycle value of a customer to the site.
- Determine the conversion rate of raw traffic to customers.



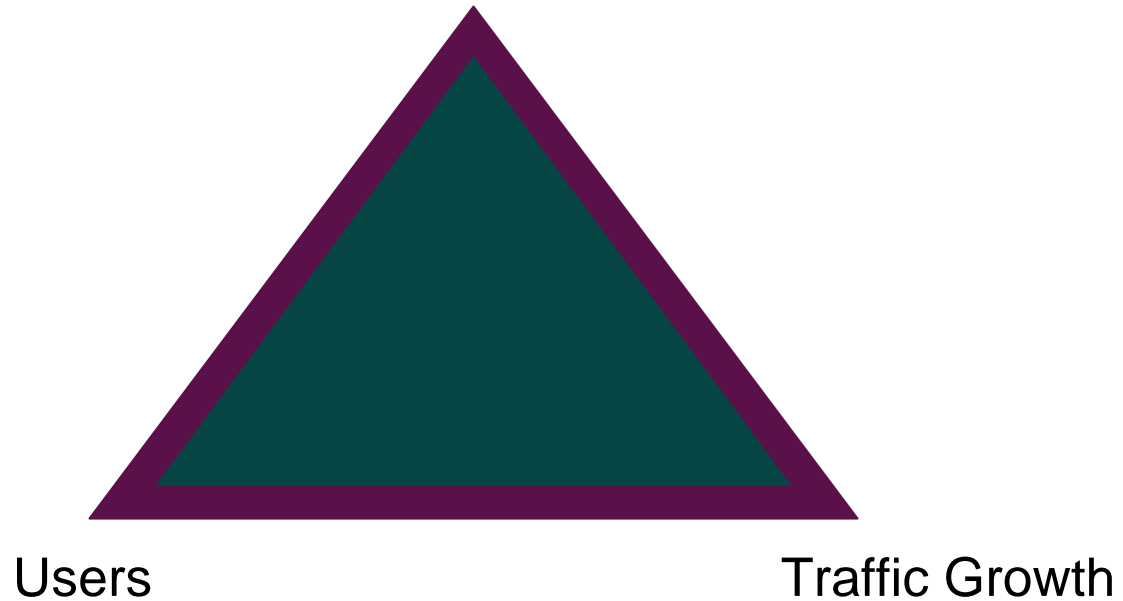
Internet Economics 101

- Low touch is better than high touch (Ebay VS Amazon)
– also lower capital needs.
- Auction model (Ebay) brings higher contribution margins than fixed price alone.
- Leverage depth, breadth and layout to achieve site effectiveness as measured by monetization of each page or item on a page.
- Transactional models win over content only sites or pure subscription models.
- Scale effects are critical to success of the model.



The Holy Trinity

Business Model



Building a Business – PayPal

- PayPal acquired customers when capital was almost free.
- PayPal skirted around Ebay by directly signing up power sellers.
- Simple yet powerful innovation in a then uncrowded space caused runaway success.
- Share of transaction fees vs. subscription model brings higher margins.
- Imitators turned up (always happens with success) but too late to challenge the incumbent.
- Low churn, high value experience kept users coming and growing.



Models That Have Not Worked

- Dynamic pricing models (other than auctions).
- Models that involve limited selection or choice.
- Private Marketplaces w/o transparency.
- Internet money/wallet schemes.
- Commerce via cell phones/mobile devices.
- Custom content/community plays in narrow vertical segments.



It's Hangover Time – Party's Over

	Back to the Future 2002	Modern History 2000
Company Failure	Bankruptcy, lose all your money	Sell company for \$100M
Modest Success	Sell company for \$100M after 4 years	Sell company for \$400M after 18 months
Big Success	IPO at \$400M cap after 4 years	Sell company for \$3B or IPO at \$3B after 24 months
Huge Success	Public market cap hits \$20B after 8 years	Public market cap hits \$20B after 6 months





Conclusions

- Capital is not free, growth comes at a price.
- Every venture needs a business model that works to produce revenue and profits.
- Value prop had better be real, not imagined
- Defensible innovation in either technology or business model.
- Build to last, not to flip – take a long term view.
- Team, vision, execution are key.
- Winner-take-all businesses are rare and hard, but not impossible, to build.