

















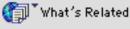








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TALK SERIES

l	Date	Topic	Presenter
l	01/27	The Dot Com Bubble	Lincoln Roop
l	02/03	Introducing the X68000: Japan's 16-bit Beast	Ford Seidel
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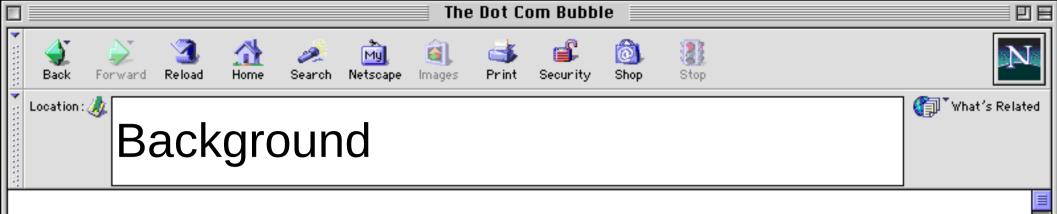
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- Initially, consumer Internet use would have been mostly limited to college students and defense employees.
- Why? <u>Computers were still pretty expensive</u>, and access to the real Internet was difficult for average consumers to get even if they had the money.
 - The death of 8-bit home computers unfortunately came before the price of Windows PCs and Macintoshes got close to their price point.
 - On-Line Services targeted at consumers, such as AOL and Genie, didn't actually give their customers access to the Internet, instead providing a "walled garden" experience and maybe e-mail to the outside world.



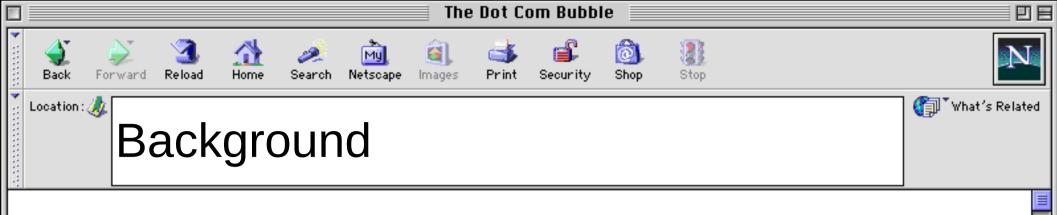
Best Buy flyer from 1996 showing sale prices of some basic desktop computers. Note that the Macintosh is more expensive **and** doesn't include the monitor.



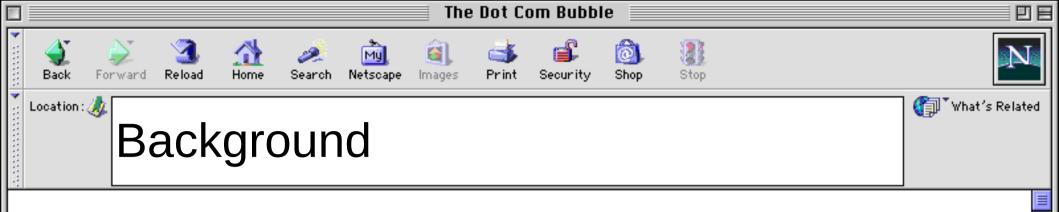
- However, in the mid 1990s on-line services such as AOL and Genie started giving their users access to the actual Internet.
 - They also undertook extensive marketing drives, <u>distributing install media everywhere</u> and giving away free trials.
 - Initially, these free trials didn't even require a credit card, so some people would just sign up for another account whenever their free hours ran out.



An assortment of America Online install CDs. For most of my childhood, it was impossible to check mail, open a package, or read a magazine without finding at least one of these.



- Gradually, PCs did become less expensive.
 - Much of this was driven by normal technological development and economies of scale as commodity PC production moved from garages to large companies like Dell and Compaq.
 - By the late 1990s, "Rebates" from Internet Service Providers (in exchange for agreeing to a contract with the ISP) were also a large factor.



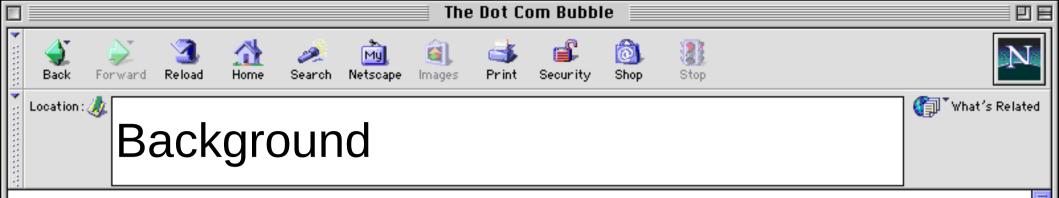
- These ISP rebates could knock several hundred dollars off the price of a new PC.
 - In 1999 and 2000, you could get a low-spec Windows machine for <u>"free"</u> in some cases.
 - There were definitely strings attached. Sometimes just an ISP subscription. Other "free computer" giveaways not only made you pay for Internet access, but gave you a machine chock-full of adware and spyware too.



Best Buy advertisement from July 2000 showing a "free" computer. To get the full \$400 MSN "rebate" you had to sign up for 3 years of MSN service at \$21.95/month – a cost of \$790.20.



Bottom part of the ad shown previously, showing prices for more powerful computers – less than half the prices for the computers seen in the earlier 1996 ad.





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- In some cases, even Internet access itself was free. ISPs such as NetZero and Juno provided free dial-up access.
 - With advertisements displayed by their proprietary dialer software.
 - For a limited number of hours.
 - If they had a local dial-in number in your area.
- Juno even went so far as to attempt to generate extra revenue by turning users' computers into a distributed computing platform similar to SETI@home or Distributed.net



- As the business world realized the moneymaking potential of computers and the Internet, the push to get them into people's homes intensified.
 - By the late 1990s, you couldn't watch television or pick up a magazine without seeing several ads for computers or Internet service.
 - There was also a huge push to get modern computers and Internet access into public schools, which resulted in a lot of children wanting Internet access at home too.

- Before the deluge of Internet-only businesses, many established companies set up websites.
- Mail-order companies like <u>Columbia House</u> started selling their wares online.
- Even many <u>companies that couldn't sell stuff online</u> established an online presence for advertising.
- Listing a web address in traditional advertising became commonplace, and some companies even changed names to indicate their online presence.





















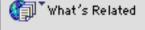




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What's New This Week

- Star Trek Fans beam here
- Coming Soon...CH Audiobook Club and our Music Collections!



Music

- ▶ Want 11 CD's for FREE? Start Picking Now!
 - Choose from over 10,000 selections
 - Canada and Mexico join



CD-ROMs

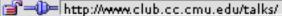
- Take 2 CD-ROM's for \$9.95 each!
 - Choose from titles like Duke Nukem 3-D, Zork Nemesis, and Windows 95 titles!

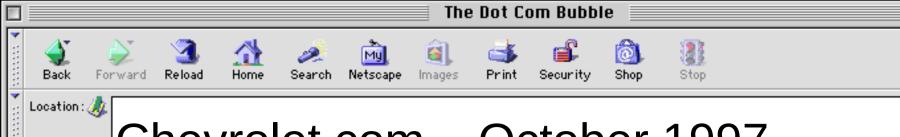


Movies & TV

- Get 7 videos for 1¢ each!
 - Choose from 7,000 titles including Braveheart, Mission Impossible, and

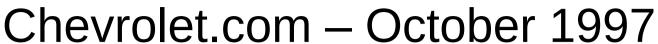








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- Since it was pretty easy for a skilled person to set up a website, Internet-only businesses, often started by young college students began to appear.
- The prevailing theory was *Get Big Fast*, meaning "Do whatever it takes to get users, worry about making money later."
 - This usually meant spending large sums on advertising and/or giving away free or cheap stuff to get attention.
 - This resulted in many Internet businesses losing money like crazy.

- But losing money didn't matter initially.
- Once the bubble started to inflate, investors were willing to dump money into just about anything with "e-" or ".com" in the name.
- Case in point in January 1999, a company named *Norris Communications* changed its name to *e.Digital Corporation*.
 - However, they had nothing to do with the Internet. They made dictation machines for hospitals.
 - This didn't stop speculators from assuming that they had some great Internet business plan and buying the company's over-the-counter traded stock en masse.







What's in a name?

∰ What's Related

12/29/00

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- Newsgroup speculation of possible Internet plans at E.Digital led to mass interest in the company's stock, which at the time was worth mere pennies.
- This probably had something to do with Norris/E.Digital having never turned a profit since their founding in 1988.

EDIG Daily -

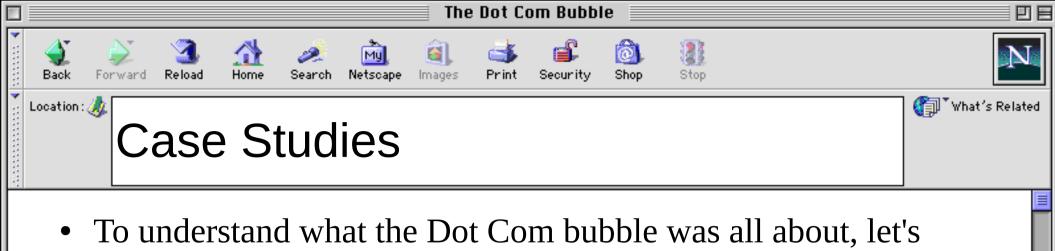
Volume -

• This, combined with rumors of an IPO, drove E.Digital's stock price to a high of \$24.50 on January 24, 2000.

Historical stock price chart courtesy of BigCharts.com

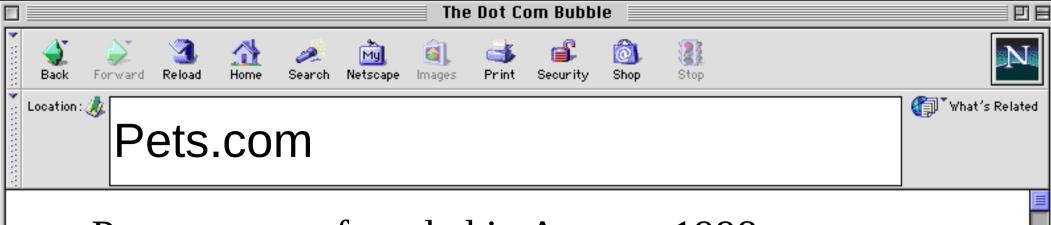


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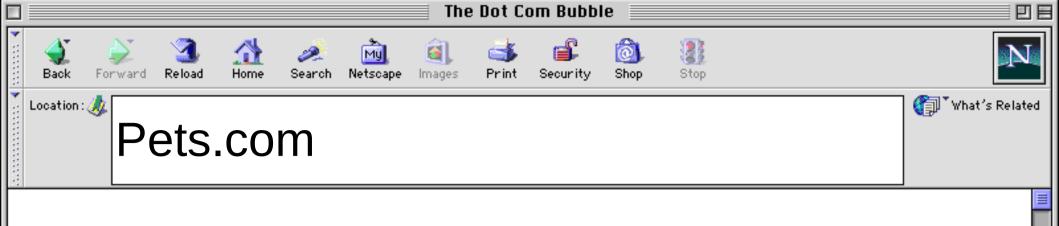


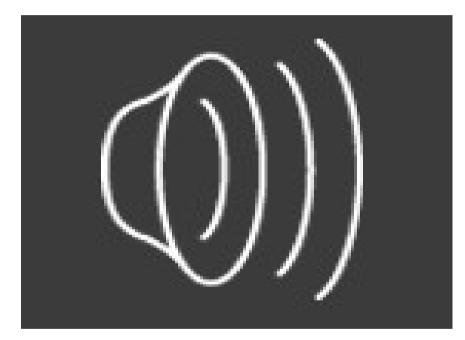
- look at a few actual Dot Com businesses.
- We'll discuss what they did, how they did it, what things they did well, and what things they could have done better.



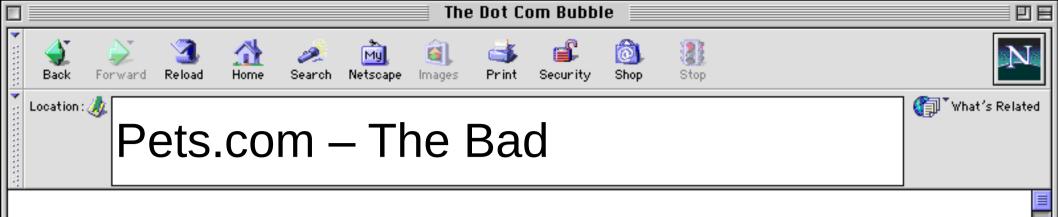


- Pets.com was founded in August, 1998.
- Business: Selling pet food and supplies to consumers.
- Income Source: Sale of a physical product.
- Memorable for: Their commercials, featuring a <u>sock puppet dog</u>, seen by some as endearing, others as annoying.



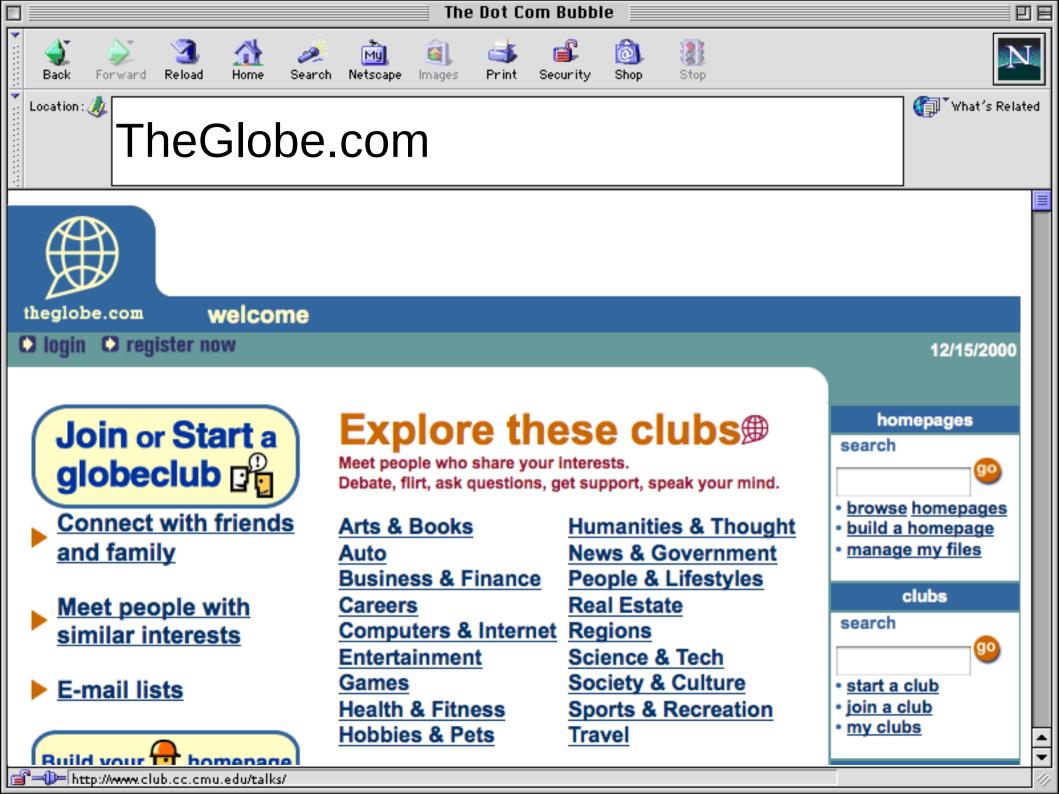


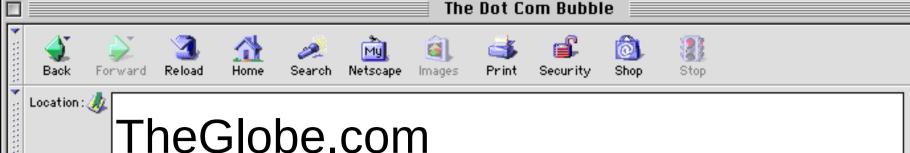
Pets.com commercial circa 1999.

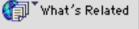


- Mail-order delivery of heavy, bulky merchandise that's already widely available in conventional stores wasn't the greatest idea.
- They offered heavy discounts to get people to buy, to the point of not making a profit, or even losing money on sales.
- Ad campaigns were memorable, but expensive and didn't translate into many sales compared to their high cost.

- Selling pet products online isn't necessarily a bad business. Today, Petsmart and Petco, as well as online retailer Amazon.com sell plenty of pet items.
- Perhaps if they had focused on higher profit/hard to find items (for instance premium pet foods that department and grocery stores don't stock, or pet toys and medicines) they would have been able to make a profit in the tougher market of the era.







- TheGlobe was founded in 1994 by a couple of students at Cornell University.
- Business: Early social networking site, featuring discussion forums and chatrooms, games, and "Internet Portal" style content such as news and stock quotes.
- Income Source: Advertising, selling premium memberships.

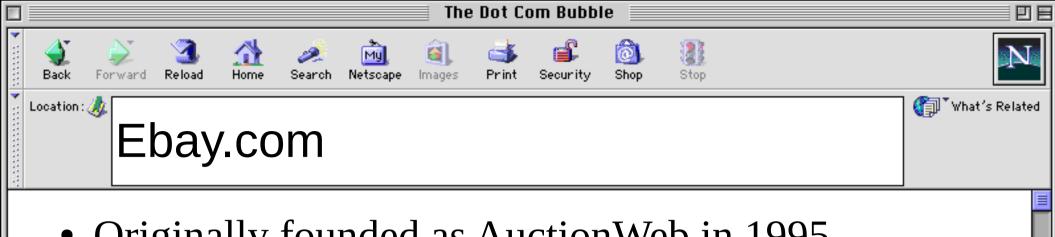
• Memorable for: Highest 1st day increase over initial share price in an IPO: Opened at \$9, peaked at \$97, closed at \$63.50.



- Like many Internet businesses, TheGlobe.com didn't have a good way of making money compared to what the site cost to run.
- Co-founder Stephan Paternot became infamous for an incident where he was filmed dancing on tables at a Manhattan nightclub with his then girlfriend and generally making a fool of himself.
 - In a further display of bad taste and bad manners,
 Paternot commented to the cameras: "Got the girl. Got the money. Now I'm ready to live a disgusting, frivolous life."

- The idea was new and innovative, and was an entirely online business.
- Maybe social networking portals aren't a bad idea.
 Myspace and Friendster failed at it too, but it looks like Facebook is having some success at it
 - Or maybe social media is yet another bubble and Facebook will lose it all eventually as well.
- The site was extremely popular for a while.
 - Perhaps if they had been better at selling advertisements they could have expanded into ad distribution like Google.



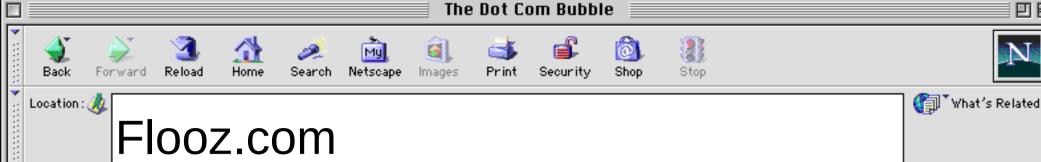


- Originally founded as AuctionWeb in 1995.
 - Fun fact: The first item sold on eBay was a broken laser pointer.
- Business: Online auctions.
- Income Source: Charging a commission based on the sale price of auctioned items.



- Unlike most businesses that sold physical stuff, eBay sold other people's stuff.
 - Individual sellers dealt with finding things to sell, listing them, and delivering them to the buyer.
 - Therefore, eBay didn't have to run warehouses, hire photographers and people to write descriptions, etc.
 - Also, this meant that eBay didn't have to spend money buying stuff to sell.

- Because they didn't actually control the merchandise or the sellers, eBay ran the risk of losing credibility to dishonest sellers.
- They were able to handle this problem, but the issue of dishonest buyers is a bit harder.
 - If dishonest buyers are everywhere, people will be hesitant to use the site to sell things.
 - If eBay cracked down too hard, they might chase off reasonable buyers.





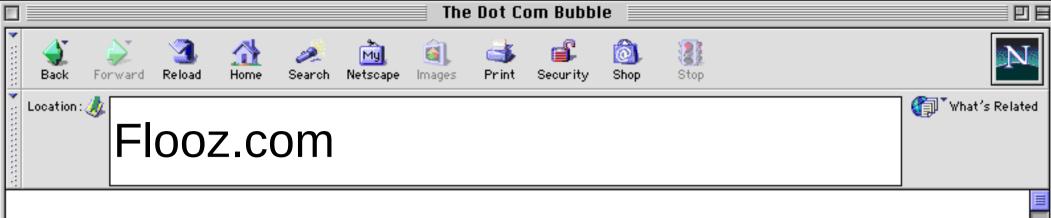
We regret to inform you that Flooz.com, Inc. has ceased operations. The offices are closed and the company will file for bankruptcy protection.

Flooz.com has been adversely affected by dramatic changes in capital markets and the general slowdown in the economy. Flooz.com had been in merger discussions with a number of companies but was unable to find a suitable partner.

We wish to thank all of our customers, merchant partners, service providers, employees and investors for their support.

Copyright © 1998 – 2001 Flooz.com, Inc.
Patent Pending
Flooz ® is a registered trademark of Flooz.com, Inc.

Ironically enough, this was one of only 2 captures of Flooz's website I could find that wasn't almost entirely broken image links. The other was just a bankruptcy filing document.



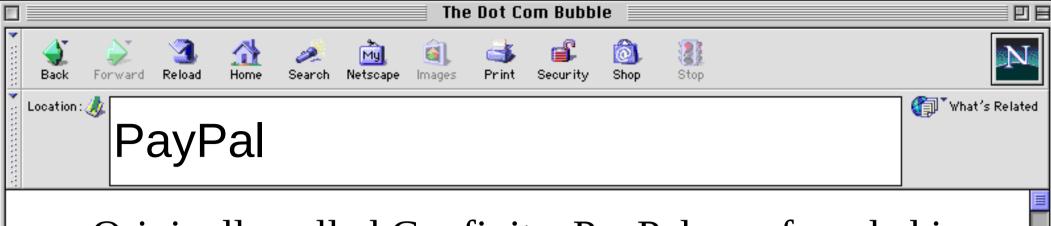
- Founded in 1999 as "The First Internet Currency." Like many dot coms, Flooz ran an extensive ad campaign with a celebrity spokesperson, in their cases Whoopi Goldberg.
- Business: Selling online 'currency' or 'gift cards'.
- Income Source: Charging a commission to retailers who agreed to accept their 'currency'.

- Because individual retailers had to agree to accept it, and had to pay for the privilege of doing so, not many places accepted Flooz credits.
- Poor fraud control measures led to foreign scammers purchasing Flooz credits using stolen credit cards, and then spending the credits.
 - This got caught too late to stop the fraudulent charges, and resulted in Flooz's payment processor cutting them off.
 - Due to this, they abruptly closed shop rendering remaining Flooz credits people had paid for worthless.

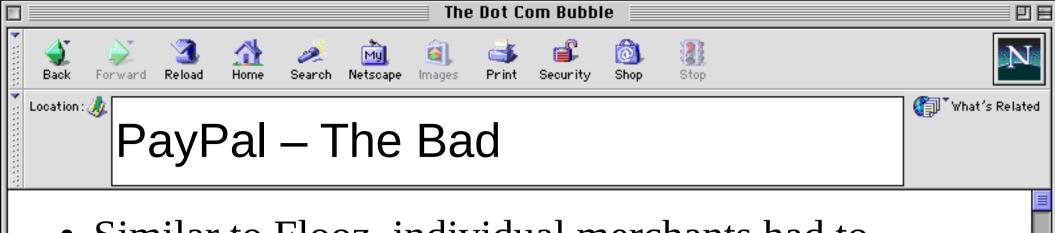


- Honestly, I'm not sure what (if anything) this company did right. Maybe if they had better security, Flooz would have been safer than using a credit card for online purchases, but they didn't.
- They convinced a few companies to give Flooz credits as a rewards program perk, but your average user wouldn't have any really compelling reason to use a credit card to buy fake money to buy stuff instead of just buying stuff, or use a credit card to buy fake money to give as a gift instead of giving cash or checks.
- They never held an IPO, so the only people who lost money were private investors and people stuck with worthless Flooz credits.



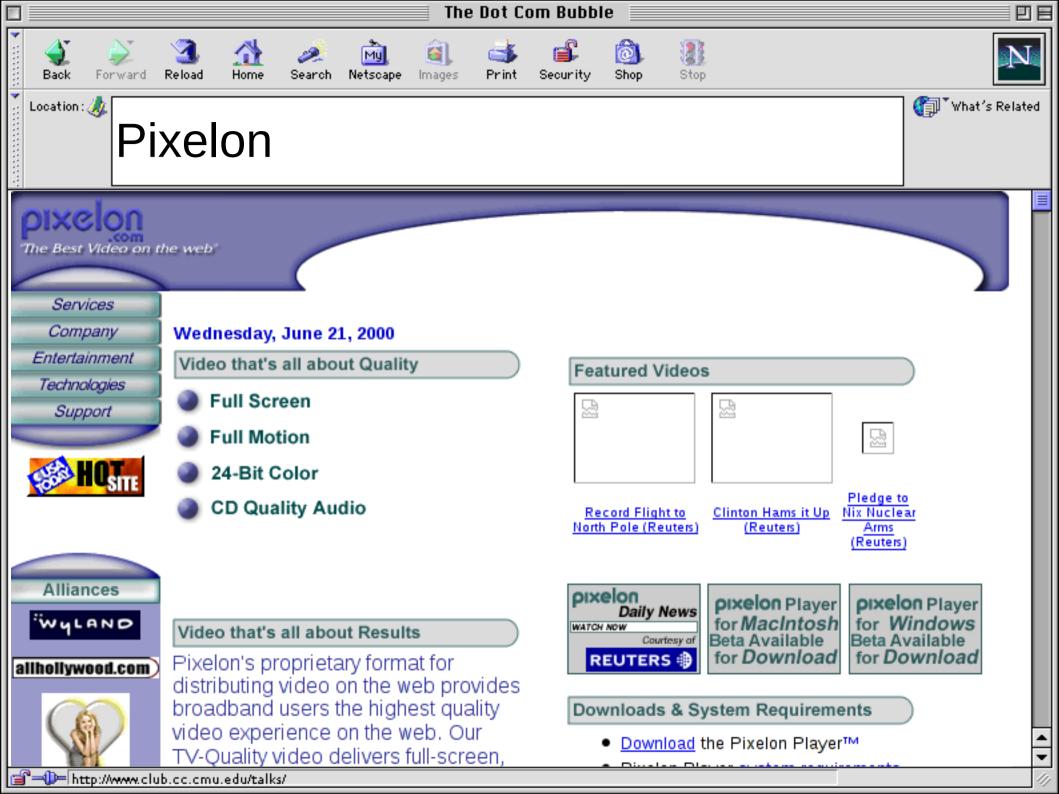


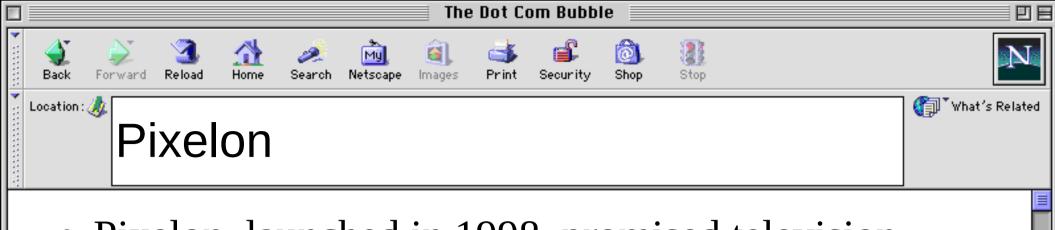
- Originally called Confinity, PayPal was founded in December 1998 and originally sold security software for mobile devices.
- Business: Electronic money transfers between individuals.
- Income Source: Charging a percentage fee on transfers.



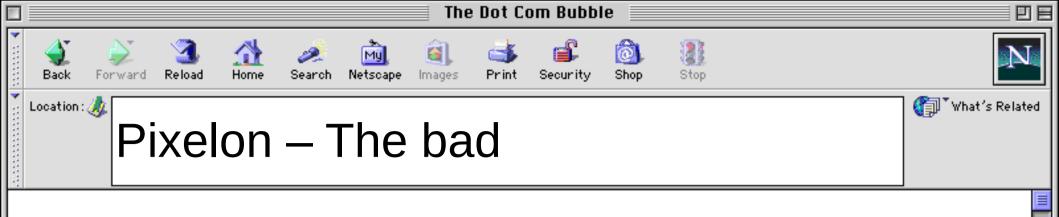
- Similar to Flooz, individual merchants had to decide whether or not to accept PayPal.
- PayPal had some security issues early on as well, but handled them and avoided having their credit card processing abilities revoked.

- Unlike Flooz, if someone sent you money using PayPal, you could get real money.
 - Because of this, PayPal was useful for things like paying for eBay auctions, which is probably why eBay bought PayPal in 2002.
- The key point here is that instead of attempting to 'sell' a substitute for money, PayPal simply made it easier to send actual money electronically.





- Pixelon, launched in 1998, promised televisionquality video over the Internet (by some magic over dial-up connections that maxed out at 53.3 kbps).
- Business: Internet distribution of high quality video (in theory).
- Income Source: Scamming investors.



- Pixelon's product didn't actually work.
- Furthermore, it didn't actually exist.
- On top of that, Pixelon's CEO and Founder, Michael Fenne, was actually a convicted felon named David Kim Stanley.
 - Fenne/Stanley was on the Most Wanted list in Virginia for a stock scam where he ripped off members of his family's church.





























₹ What's Related

- They threw a really cool party, iBASH '99.
 - Cost: \$16 million of venture capital money.
 - Featured: Several famous bands, including Kiss, The Offspring, and a reunion of The Who.
 - In theory, this was supposed to be streamed online as a demonstration of Pixelon's nonexistant video technology.
 - People who attended in person paid \$10.
 - Even if 160,000 people attended (which I doubt they did), the money probably just got wasted.































What can we learn from all this?

What's Related

- Are YOU interested in founding or working for a startup?
- If so, there are some important lessons you can learn from the excesses of the Dot Com era.
- And they're completely free*.



Attend our NEW and EXCITING **Open Hacking Hours** - Saturday, January 30 at 5:00 PM, Cyert Hall room B6

* This message sponsored by the CMU Computer Club. Attend this weekend's Open Hacking Hours to learn about how our Free Software based infrastructure provides you, the campus community, and even the outside world with useful free services.







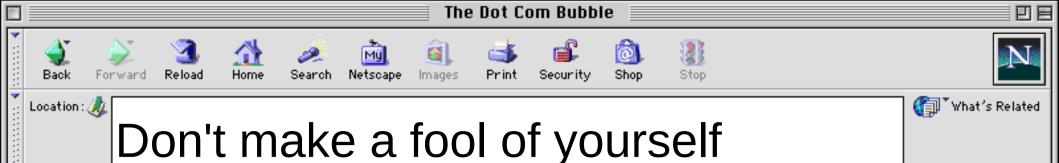


- The point of a business is to make money. If you want to start one, you should probably know:
 - What am I going to do?
 - What will it cost me to do it?
 - How much money can I make doing it?
- Yes, marketing is important, but if you have nothing to sell, don't waste money trying to sell it.
 - Otherwise you might get stuck doing something unpleasant like starring in <u>late-night TV commercials for subprime loans.</u>

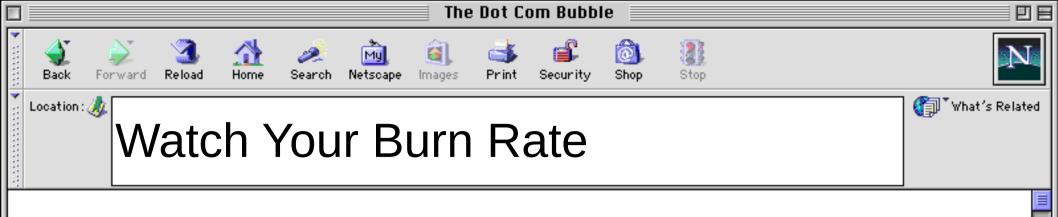




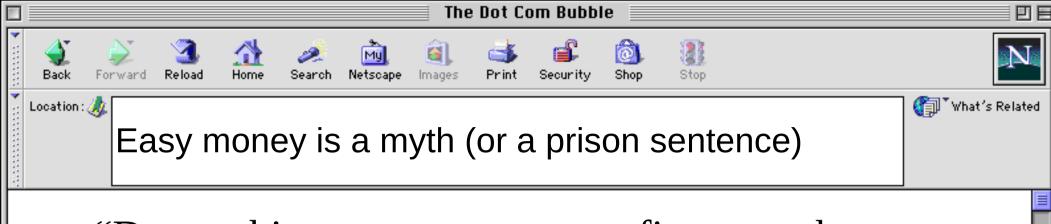
After the bankruptcy of Pets.com, the rights to their sock puppet mascot were purchased by 1-800-BAR-NONE, a subprime auto financing company.



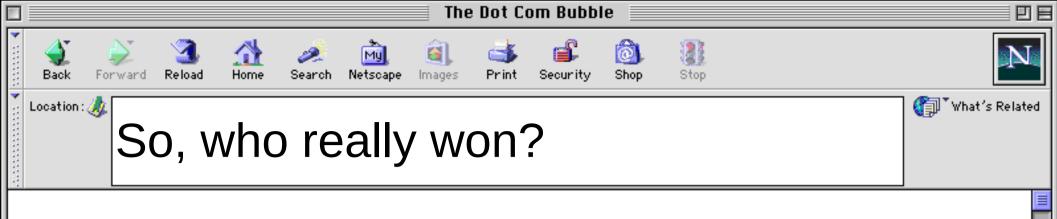
- It might be fun to dance on tables at a bar in tacky plastic pants (until you sober up) but it won't inspire confidence in investors.
- Remember, the hangers-on will leave when the money runs out.
- The people you tick off by being a jerk are far less likely to forget you, though.



- *Burn Rate*, or how quickly your company consumes operating capital is a very important metric.
- If you spend all your cash before turning a profit, even if you spend it on useful things, you're unlikely to get more money to spend.
- Many Dot Com startups had ideas that could have worked, but tanked because they ran out of cash.



- "Do anything to get customers, figure out how to get them to give you money later" isn't the best business model.
- Did it work for a few companies like Google and Amazon? Yes, but they had a lot of luck, and you probably don't want to compete with them.
- Blowing investor money is at best stupid, and at worst fraud.



- Investment bankers and venture capitalists. They get to sell out on the day of the IPO.
 - This means that Wall Street even profited from the companies whose names live on only as a sad joke.
 - The founders of the company have to wait at least 6 months to sell their shares.
 - Remember, the casino always wins.



- Preferred clients of the banks running the IPOs.
 - They get to buy shares immediately, and like the banks, can dump them that day if they so wish.
 - A lot of Average Joes who tried to make money in the Dot Com IPO frenzy lost their shirts.



- The handful of dot coms who had the right balance of good ideas and good luck.
 - You might be familiar with some of them: Amazon, eBay, Google, E-Trade, etc.
- Internet Service Providers
 - While many of the dot coms were not here to stay, the consumer Internet definitely is.





















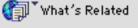




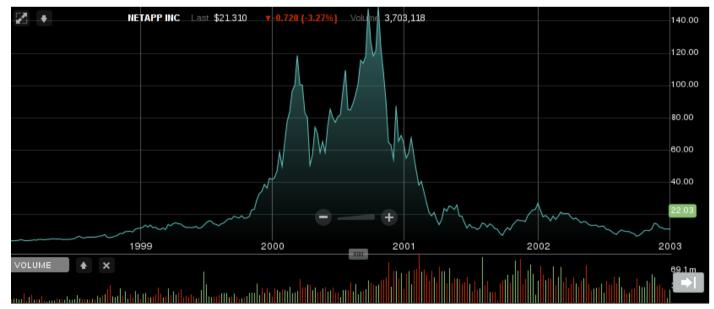




Who Else Got Burned?



- Obviously, a lot of poorly run businesses with bad business models lost it all, but they weren't the only losers.
- Even online businesses with sound business models couldn't get money once the house of cards started to fall.
- Other entities who weren't directly involved with the dot coms, but did business with them:
 - Server and network vendors. Sun Microsystems and Network Appliance both made tons of money during the bubble, and lost big when it collapsed.
 - Real estate investors and community development authorities who built office parks hoping to attract high-tech businesses found themselves left with empty buildings to maintain.



Historical stock price chart courtesy of nasdaq.com







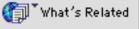




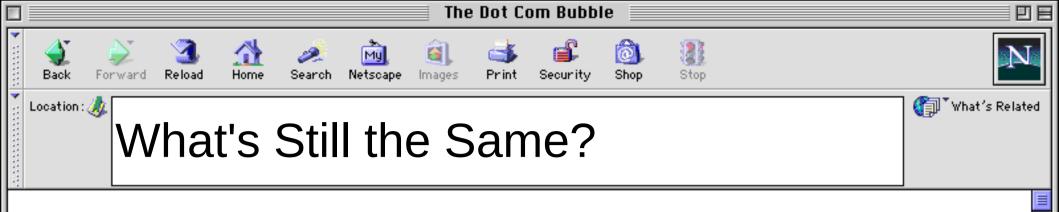




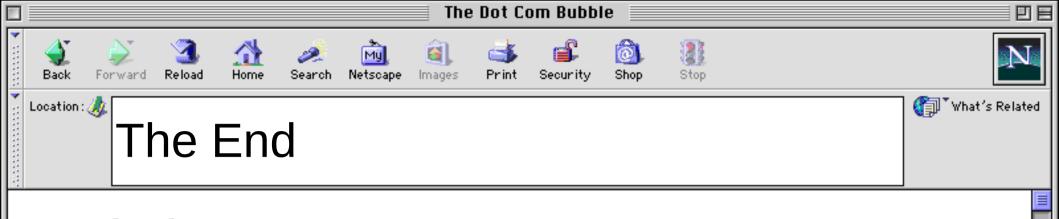
What's Changed?



- Startup IPOs tend to be delayed quite a bit.
 - Consider Facebook: They launched in 2004 but didn't IPO until May of 2012.
 - This has made it less likely that retail investors will lose their shirt by buying into hot air IPOs.
- The Sarbanes-Oxley act, inspired by book-cooking schemes at Enron, WorldCom, and Tyco curbed the more blatant frauds.
 - For one, CEOs are now required to sign off on public company finance statements, and can go to jail for fraudulent ones.
 - Furthermore, the SEC can "claw back" bonuses and stock sale gains "earned" by executives as a result of fraud.
- Many of the "bad ideas" of the original Dot Com bubble (online retail, social media, fake Internet money) are now real things and are successful.
 - A big part of this is probably due to better infrastructure, and more people being willing to conduct business online.



- Even now, many Internet businesses still take losses to capture market share.
 - Online retail giant Amazon.com has steadily produced little or no profit for years, but they keep growing.
 - Google is profitable, but had to blow a lot of money to get there.
- Are we in another tech bubble now? Personally, I suspect so.
 - Is Snapchat *really* worth 4 billion dollars?



• Thank you to:

- The Internet Archive (http://web.archive.org/) for their records of old webpages.
- Imgur users *prettygrenade* and *NIGHTHAWK017* for scanning and uploading the Best Buy circulars used to show historical computer prices.
- AOL for providing a source of free 3.5" disks, Christmas ornaments, and paint palettes.
- The Document Foundation for getting LibreOffice to play videos correctly.
- The people who attended this talk. Empty chairs don't ask a lot of questions, but they're not very good listeners either.



















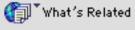








Other Notable Dot Com Failures



- Webvan Grocery delivery. Burned \$800 million and went bust. Today, Amazon Fresh and Instacart are having some success with this business model.
- Kozmo Offered free 1-hour delivery of all sorts of stuff. This one should have been an obvious turkey (how can anyone make a profit delivering an \$3 loaf of bread for free?)
- Boo.com Sold fashion clothing online, but their website had terrible UX design.



















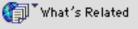








The Dot Com Bubble Elsewhere



- Was the Dot Com bubble exclusively a Silicon Valley phenomenon? Nope. Most Dot Coms located there, but some people tried their hand at Internet startups in different locales.
- There were even a few notable ones in Pittsburgh:
 - Printcafe Software, founded by former CMU professor William Guttman attempted to establish themselves as an "online market" for commercial printing.
 - Apparently the technology wasn't really there. They lost tens of millions of dollars.
 - In 2002 they attempted an IPO, but their stock plunged from an initial price of \$10 per share to \$0.91 per share.
 - SightSound Technologies developed DRM technology for distributing movies and music.
 - However, they found patent lawsuits to be a better way of generating revenue.
 - It appears that they sold their patents to General Electric in 2006, however their website (http://www.sightsound.com) is still active, and they claim to still have a physical presence at 311 South Craig Street, Suite 104.