

Exploring Computer Science

Video Games

Why talk about games?

Why talk about games?

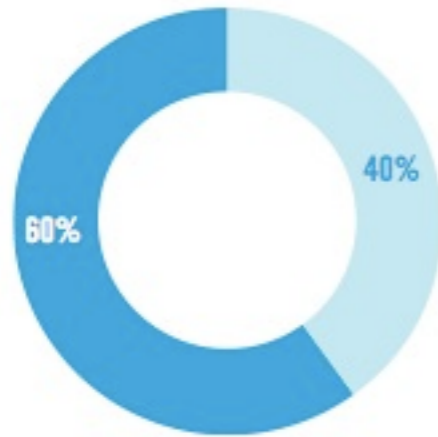
- You play them
- Major economic force
- Deep impact on culture and society
- History of pushing limits of computing
- Likely to play a big role in many aspects of your life

Who plays games?

WHO PLAYS COMPUTER AND VIDEO GAMES?

68%

of American households
play computer or video games.



GENDER of Game Players

60% male
40% female

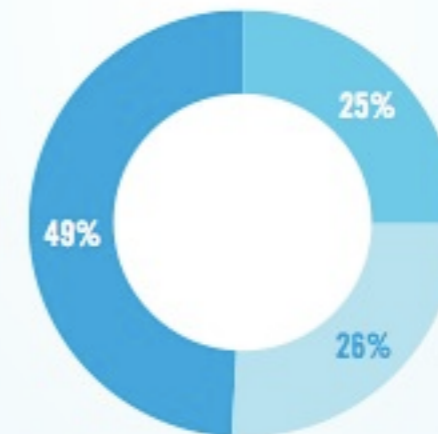
WOMEN age 18 or older represent a significantly greater portion of the game-playing population (34%) than boys age 17 or younger (18%).

63%

of parents believe games are a positive part of their children's lives.

The average game player age is:

35



AGE of Game Players

25% under 18 years
49% 18-49 years
26% 50+ years

In 2009,
25%

of gamers were over the age of 50.

WHO BUYS COMPUTER AND VIDEO GAMES?

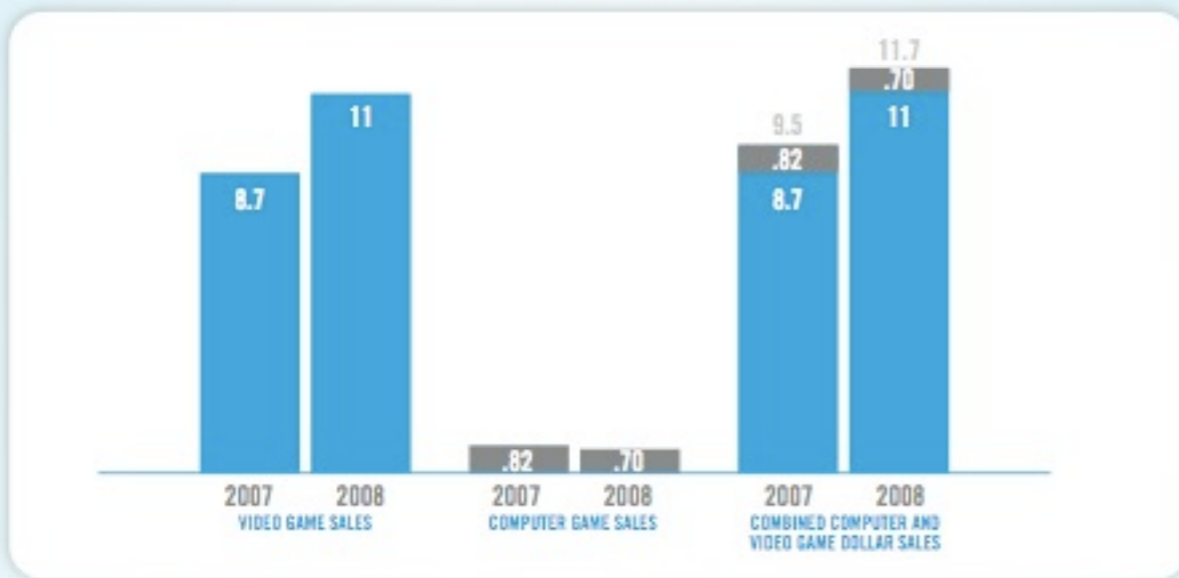
The average age of the most frequent game purchaser is:

39

**How much money is
there in games? Where
does it come from?**

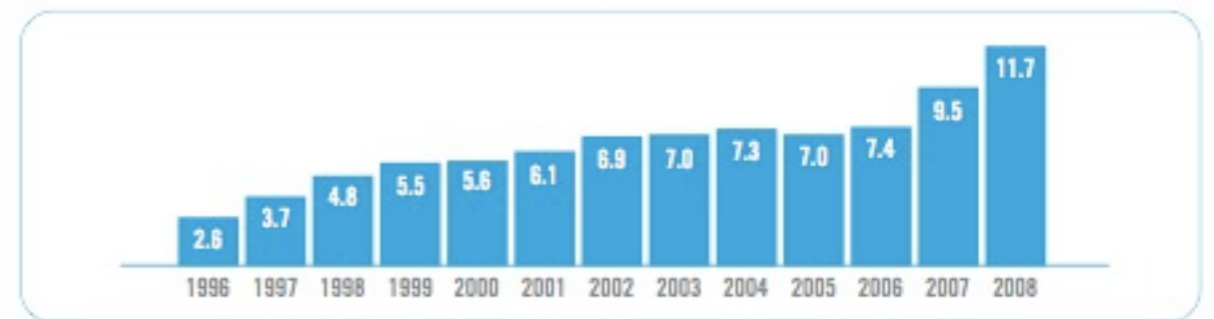
Generates more revenue than Hollywood!

U.S. Computer and Video Game **DOLLAR** Sales: 2007 and 2008
DOLLARS IN BILLIONS



Source: The NPD Group, Inc/Retail Tracking Service

U.S. Computer and Video Game **DOLLAR** Sales Growth
DOLLARS IN BILLIONS



Source: The NPD Group, Inc/Retail Tracking Service

In-game advertising



Franchises



New Monetization Methods



MOCHI COINS API

APPLY TODAY ▶

Log In ▶

Developer Center

Ads API

Analytics API

▶ Coins API

Game Distribution

Live Updates

Scores API

APPLY TODAY ▶

Coins Docs ▶

MAKE MONEY FROM PREMIUM FLASH GAMES

The Mochi Coins API is an easy way for Flash game developers to earn money by selling in-game items and upgrades directly to gamers.

APPLY TODAY ▶

BENEFITS

Profit from your games

The Mochi Coins API enables you to sell in-game upgrades like level unlocks, equipment, special weapons and cheats directly to gamers.

Multiple payment methods

We take the hassle out payments so you don't have to worry about integration, fraud and customer service.

MochiCoins can be used anywhere

Gamers who buy MochiCoins can spend them in any game that uses the Coins API, anywhere on the web.

Secure login and server-side data

We provide secure login and server side persistence of player data so you can store game state, user data, etc. no matter where your game is played.

HOW IT WORKS

Sell game items and upgrades directly to your gamers

Gamers can fund their MochiCoins wallet and use this virtual currency on any site in any game that uses the Coins API to purchase game items, level unlocks or upgrades. Mochi shares 60% of revenue generated by MochiCoins spent in a game with the developer.

We take the hassle out of virtual goods

The Mochi Coins API is not locked down to any specific website, meaning that gamers can play and purchase in your game no matter where it is on the web. We provide secure login, payment and server-side persistence of player data across all games in the Mochi network. In addition to this, we make marketing and game distribution a breeze through the Mochi network, which powers 10,000+ websites.



Mochi Coins, OfferPal, SuperRewards, TrialPay, etc...

www.christophercumings.com

Direct Payments



Energy: 2 / 4
Silver: \$ 16
Gold: \$ 0
[get more gold](#)

[<< Back to the Potions Shop](#)

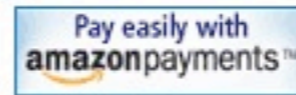
Support Enchanted Island and receive gold for premium items! We're working hard to make this g and your support helps make it all possible. **Thank you!**



Paypal



Credit Cards



Amazon Payments



Pay by phone

Donations

199 Gold



Receive a gift of 199 gold for donating \$1.99

Donate \$1.99

499 Gold



Receive a gift of 499 gold for donating \$4.99

Donate \$4.99

999 Gold



Receive a gift of 999 gold for donating \$9.99

Donate \$9.99

1,999 Gold



Receive a gift of 1999 gold for donating \$19.99

Donate \$19.99

4,999 Gold

Receive a gift of 4999 gold for donating \$49.99

Donate \$49.99

9,999 Gold

Receive a gift of 9999 gold for donating \$99.99

Donate \$99.99

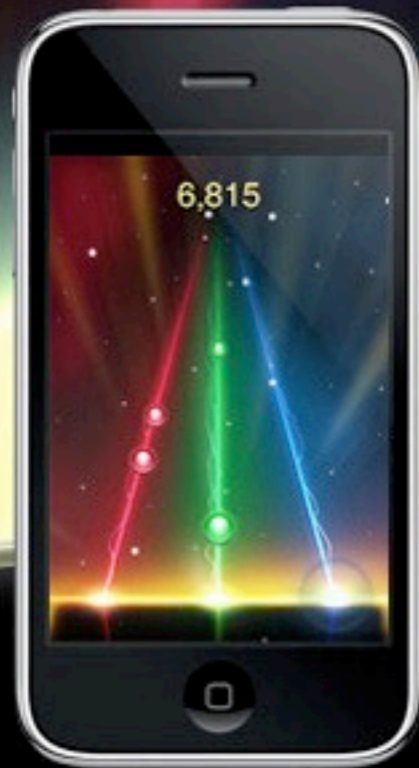
Chris the Mighty
Level 1 - Worm
5 casts until level-up...
[Open Satchel](#)
[View Your Profile](#)

Disguise microtransactions as donations; sell limited edition items

**How has mobile
affected gaming?**

#1 iPhone App!

Read More...



Tap Tap Revenge



“We set out to get a million users in a year. And we got a **million users in ten days.**”

- Bart Decrem, CEO Tapulous

300 new games **daily** in the App store

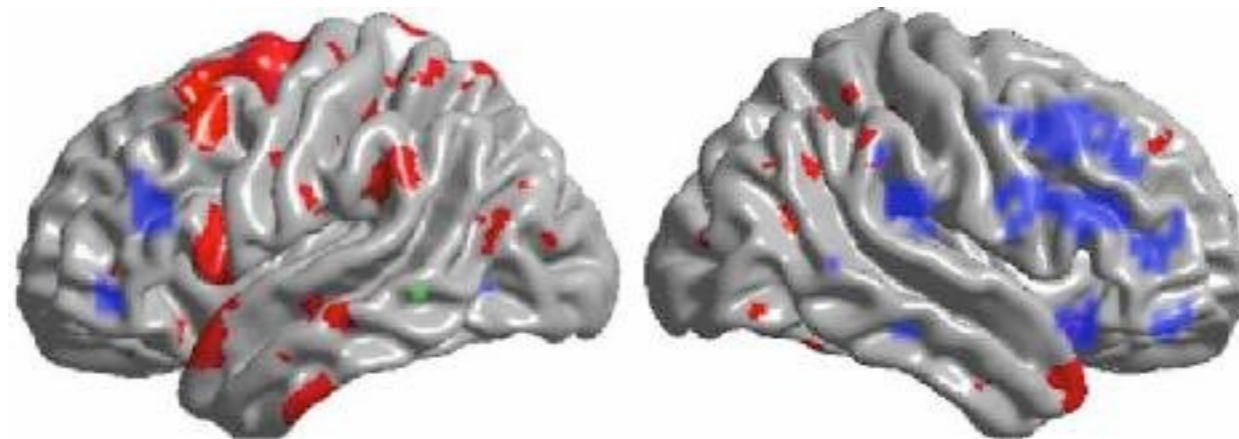


*Very hard to break through the **noise***

**Could games have
positive side-effects?**

Changes to your brain

- “Tetris effect” -- brain uses less glucose
- Red areas: cortex became thicker after 3 months
- Blue areas: areas functioned more efficiently



Eyesight

- Tendency to assume games kill eyesight
- Expert gamers outperform non-gamers at visual tasks
- Contrast perception increased by UT over the Sims (43% greater)

Cooperation

- Cooperative games lead to pro-social behavior in clinical studies in US and Germany
- Strategy game players exhibit leadership skills

Are games addictive?

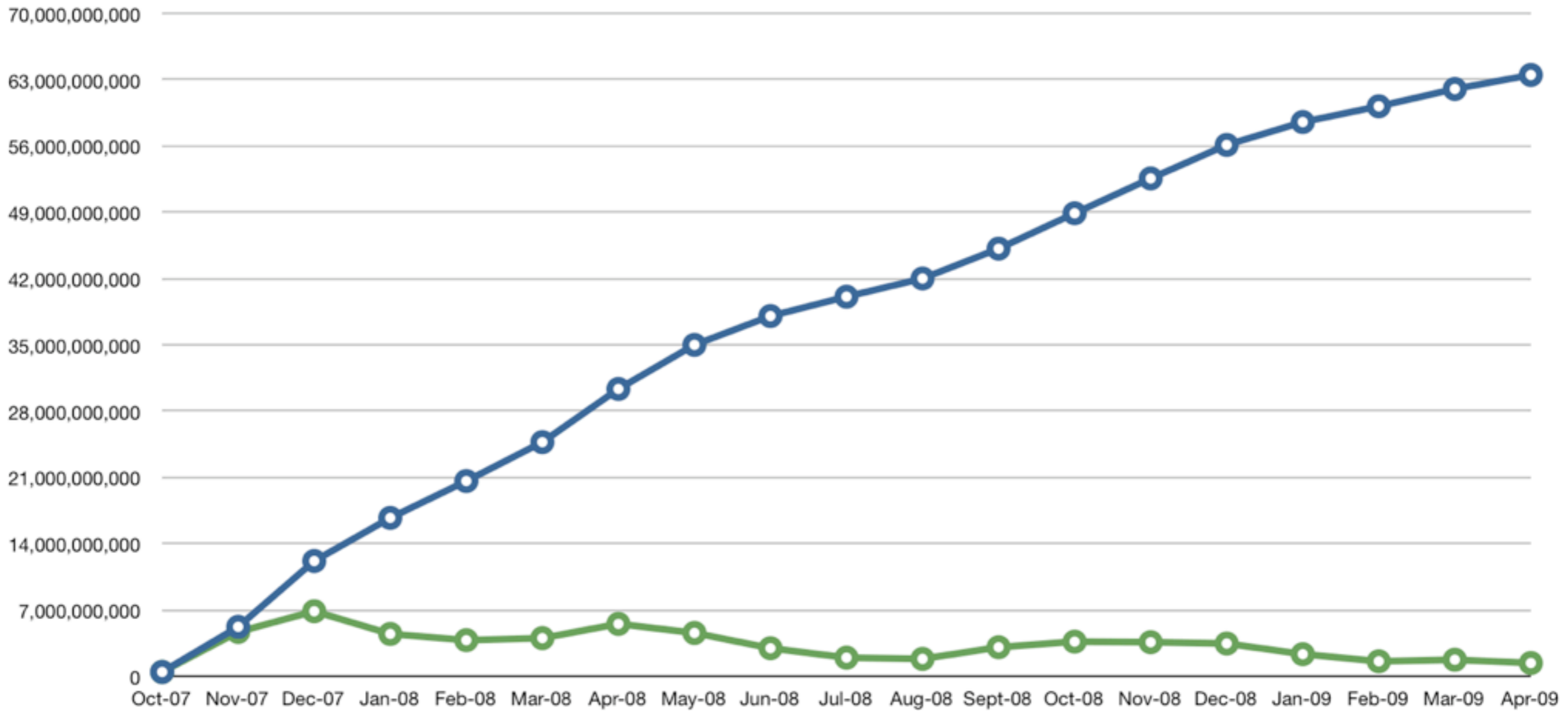
Games and the brain

- Hot area of study
- Success releases dopamine in brain reward circuit (maybe more in men than women?)
- Provides escape from daily life
- Provides the perfect level of challenge
(<http://discovermagazine.com/2007/brain/video-games>)

**What productive things
can be accomplished
through games?**

Freerice

Total Donations



Human-powered Computing

- Computers are very bad at certain things
 - Recognizing objects in pictures
 - Gauging relevance
 - Reading handwriting
- Give users points and they'll do it for you!!

Case study: Second Life



What Is Second Life?

World Map

Shopping

Buy Land

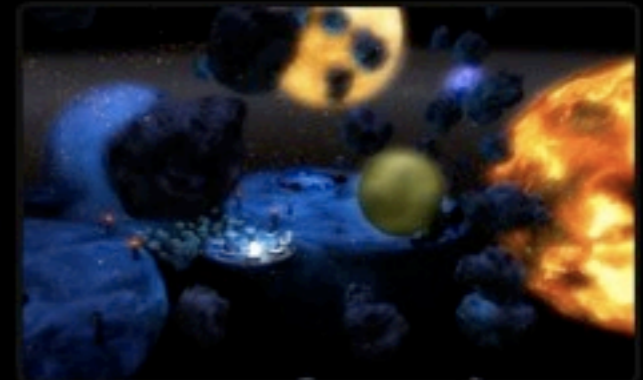
Community

Help

Join
It's fast, it's free



Second Life is an online, 3D virtual world imagined and created by its Residents.



Second Life

- 3-D Virtual World
- Run by Linden Lab
- Residents are avatars
- Not really a game -- an alternate reality
- Free to join
- Owning land costs money



You're not target users... yet

Country	%
United States	31.19%
France	12.73%
Germany	10.45%
United Kingdom	8.08%
Netherlands	6.55%
Spain	3.83%
Brazil	3.77%
Canada	3.30%
Belgium	2.63%
Italy	1.93%
Australia	1.48%
Switzerland	1.29%
Japan	1.29%
Sweden	0.95%
Denmark	0.88%
China	0.61%

Age	%
13-17	1.23%
18-24	27.16%
25-34	38.88%
35-44	21.13%
45 +	11.61%

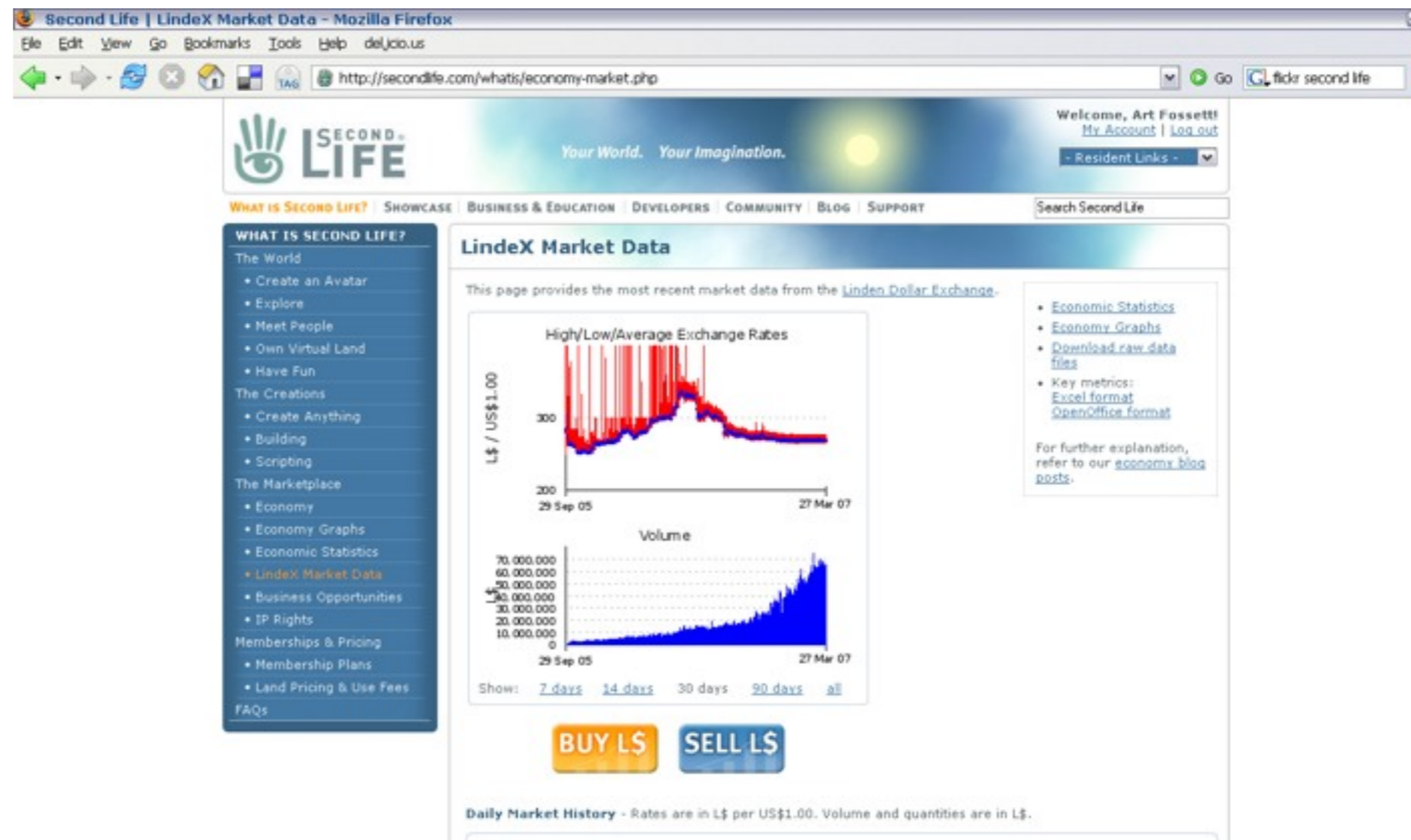
Average Age Adult Grid
33

Average Age on Teen Grid
15

		F	M
2006	September	43.76%	56.24%
2006	October	42.65%	57.35%
2006	November	42.14%	57.86%
2006	December	41.42%	58.58%
2007	January	41.11%	58.89%
2007	February	41.07%	58.93%

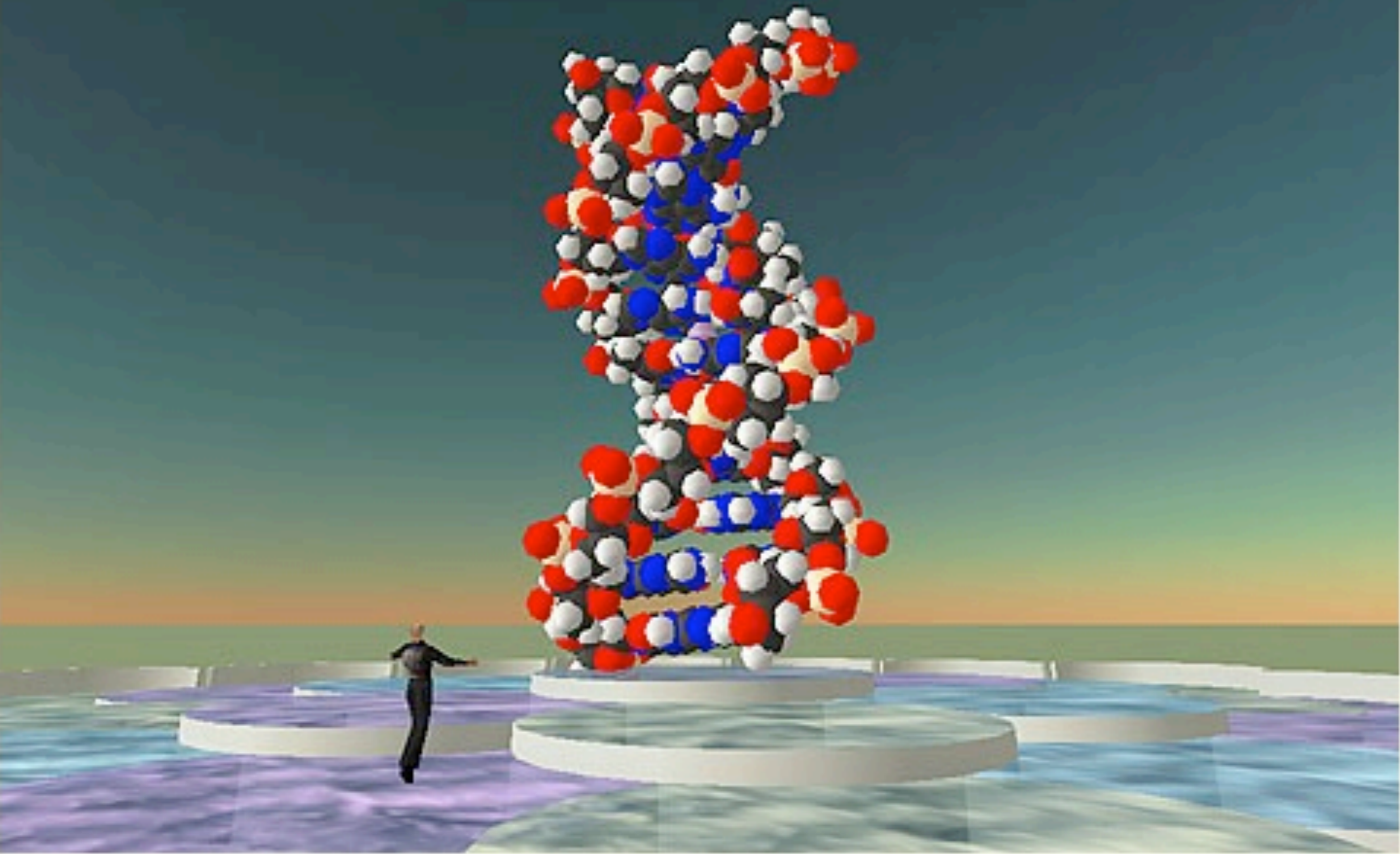
Linden Dollar

- \$1 ~ \$250
- Currency market to buy and sell



**Uses for school and
work?**

Visualizing biology in Second Life





Conferences in Second Life

Advertising

- Many big brands have real estate
- Interactive, huge audience, low costs



How does networking
and the Internet affect
games?

49%
OF GAMERS PLAY
GAMES ONLINE AT
LEAST ONE HOUR
PER WEEK



Social Games

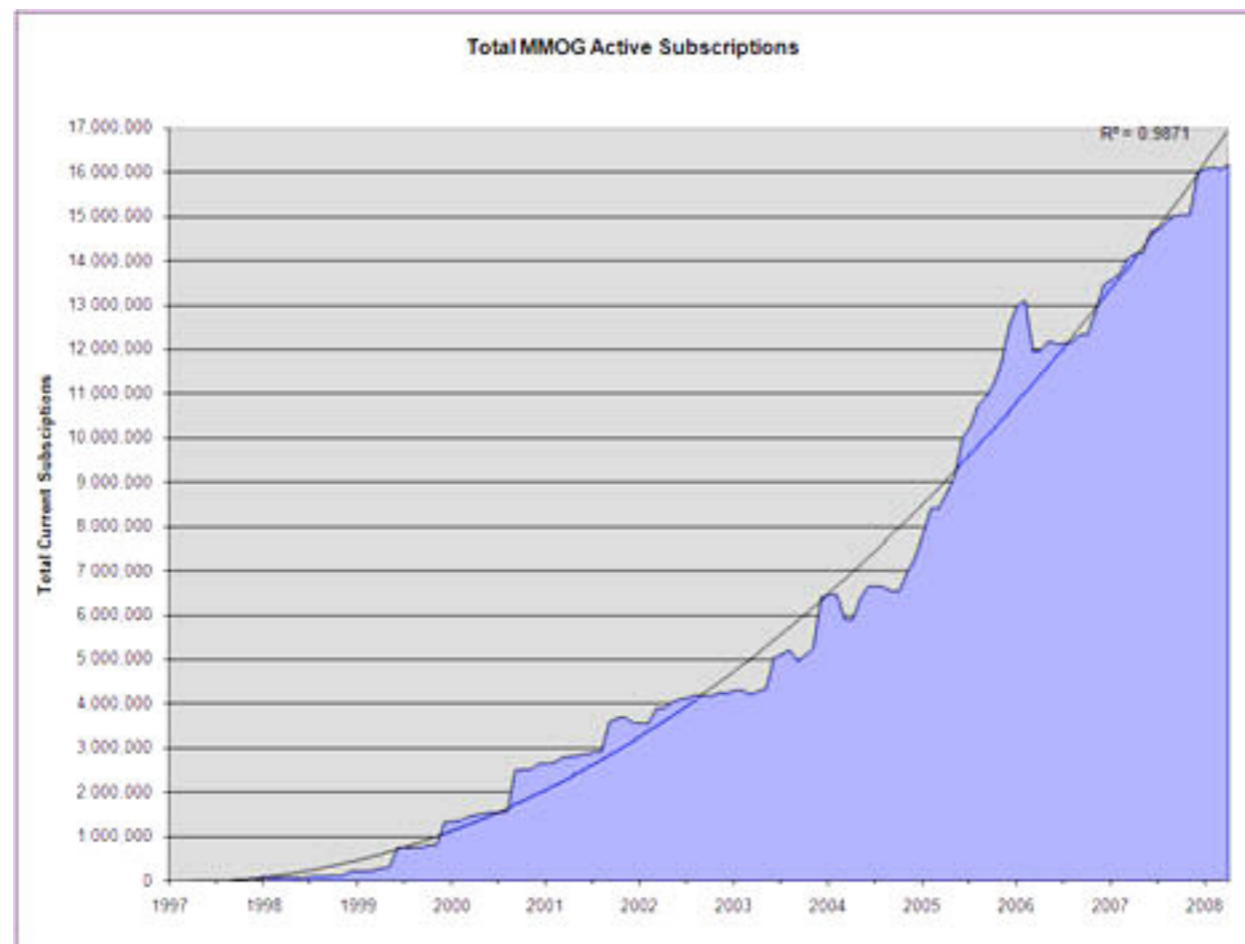


Zynga (FarmVille, etc) has \$50M annual revenues

Threat to consoles

- July 2009
 - 38% decrease in hardware sales from previous year
 - Wii dropped 45%
 - PlayStation 3 dropped 59%

Massively Multiplayer Online Games



**What kinds of content can
users generate and how
does that affect game play?**