Second Life
(Don't sell your First Life just yet...)

By James Reynolds
What is SL?

• "Second Life is a 3-D virtual world entirely built and owned [hmm...] by its Residents. Since opening to the public in 2003, it has grown explosively and today is inhabited by a total of 8,687,234 Residents [**cough**] from around the globe." - secondlife.com

• Mix of WoW and TSO (The Sims Online)
Client Application

- Supported platforms
  - Windows XP (not Vista)
  - Mac OS X
  - Most Linux distros
- GNU General Public License v2
- Not all of the code is released though
Linden Labs

- Privately held company in San Francisco
- Named after a street...
- CEO Philip Rosedale (former CEO of Real Networks)
- About 140 employees
  - 28 are engineers
Emphasis

• 3D content creation and scripting
• Economy
  • Buying clothing, buildings, weapons, etc.
• Socializing
  • IM, voice chatting
  • Parties, dancing, "escorts"
• Exploring
• Gaming? Well... it isn't WoW
Membership Cost

• No cost to become a "resident"
• Buying things costs "Linden Dollars" (L$)
  • Buy L$ w/ real $$, "earn" L$ or upgrade to "Premium" membership
• Premium membership
  • $10-$6/month depending on length
  • Required if you want to "own" land
  • Land costs are extra
Who Uses it and Why?

- "Virtual Utopians"
- The "perfect" you
- Tend to spend their real money
- A bit more realistic and responsible
- Love to use voice chat
Who Uses it and Why?

- "Role Players"
  - Be anything you want
  - No-commitment relationships & "safe sex"
  - Hate voice chat
  - Do not put their own money into the game, but instead "earn" L$
Who Uses it and Why?

- A lot of Europeans use Second Life, Germany, Netherlands, UK, etc.
- Brazil has its own "grid"
- There is also a Teen grid
- Gender population is maybe 50/50
  - Maybe 15% of women avatars are men
  - Maybe 5% of men avatars are women
Real Lives of Residents

- I've met
  - Programmers
  - Real estate agents
  - Corporate lawyers
  - Nurses
  - Students
  - Home makers
  - People who attend church in SL...
  - Etc.
Sub Cultures

- Sex, "cybering", SM, "child play", slavery, etc...
- Star Wars, Vampires, Furries, Goreans
- 19th century "steampunk" Caledon
- Music (U2, Susan Vega, Duran Duran, indies)
- Politics/activists
- Businesses (IBM/AMD/Dell/Sears/Toyota/etc)
- Many universities
- Etc.
Education in SL

- Educause and New Media Consortium's 2006 and 2007 Horizon Report highlight Second Life
- 2-3 years for adoption
Education in SL

- There are many Universities with land in SL
  - Harvard, Stanford, Ohio U, Pepperdine, Rice, NYU, Huston, at least 60 more...
- Visual learning (architecture, etc.)
- Learning a language
- Distance education
- I'm sick the phrase of "learn by role playing"
Obvious Positives

- A few people make a very real living there
- Very social
  - Tiny barrier to make friends
- Good for recruitment
- People do what they wish they could in RL
No NPC's

- There is "a human behind every player"
- Why SL is better than webpages
- Anonymous, but with a persona
- Perhaps this is why SL IM is easier than normal IM
Problems

- Sex/Porn/Nudity everywhere
- There are "Mature" and "PG" areas
- No visual divider, so you can see the neighbors' porn even if you are PG land
- Half of "quality" content is on mature land
- Who enforces this anyway? I've seen porn on PG land...
Problems

• Bugs
  • Massive "resident" discontent
  • Linden Labs keeps adding "bling"
  • Voice chat and better visuals
• Never fixes bugs
  • Client app constantly crashes
  • Lost inventory ($$$)
• Teleport broke
• Search broke
• Etc.
Problems

• Legal
  • LL needs age verification, but will it come?
  • Gambling was just banned in July
  • LL has a bad TOS... they are currently in court because of it
  • They can "freeze" or "dissolve" assets. Who **really** owns anything there?
  • UK is looking into taxing SL profits
Problems

- Outages
  - Many are pre-announced
  - Some are unexpected and can last all day
- Can be expensive to host content
  - "Island" costs $1675 then $295/per month
  - 50% off for education
- Linden Lab's earns $ from Land sales
Problems

• Malware and "griefers"
• Script DoS, orbiting avatars, disrupting events, etc.
• Abuse enforcement
• Where are the cops?
• Closed Server (client is open source)
• Their servers were hacked in Sept 2006
Problems

• Overstated "resident" numbers

• 8 million users, but only 1.6 have actually logged in in the last 2 months (many people have multiple accounts--I have 4...)

• All digital content resides on LL's servers...

• Caters to big business

• Slow to deal with trouble tickets
Problems

• The "grid" is very expensive compared to other online games
• Linden Labs says it pays for itself
• But the company is not making a profit
• 100,000 max users (40,000 actual max)
• Search function is often out of date
Problems

• Some areas are creepily empty...
• There needs to be some sort of draw otherwise residents think the place is no good and it stays empty
• It is possible to copy "uncopyable" objects
• SL intellectual property "theft"
• Some businesses are pulling out
• Wells Fargo
Problems

• The client app is updated sometimes weekly and is a 200 MB download...
• Copyright and trademark isn't enforced
• Some say SL economy is a pyramid scheme
• Someone has actually filed a real police report that they were raped in SL
What is Going On???

- Second Life & other virtual worlds are a hit
- Nobody really knows what this means
- Too many residents have "drank the punch" and can't give an objective opinion
- The economic aspect first excited then soured businesses and entrepreneurs
What is Going On???

• Whatever happens, virtual worlds are too appealing to enough people willing to pay real $.

• Virtual worlds will be a part of the future and by extension, education.

• But nobody really knows what form it will take.
The "Grid"

- The "grid" consists of over 2000 servers running Debian OS & Mysql
- Each "sim" (an island) is a single process
- Generally one process per CPU core
- It is possible to crash a sim with user created scripts or bring it to a standstill with game engine physics problems
Physics

• Uses the Havok physics engine
• Gives objects physical abilities (roll, push)
• Used by many games and 3d apps
  • Half-Life 2
  • Halo 2
  • 3ds Max
  • Adobe Shockwave
3D Content Creation

- Types of content
  - 3d geometry (primitives)
  - SL client app (& Maya plugin)
  - Image maps (texture maps)
  - GIMP/Photoshop
  - Avatar animations (the dancing)
  - Poser/Avimator
- Currently 34 terabytes of user created data
Scripting

• Linden Scripting Language
• C/C++, Java, PHP like
• HTTP and XML Remote requests
• Being ported to Mono
  • 1000 times faster than current version
• Will allow programming in C# and VB
Media

- Quicktime
- Icecast music
- Only land owners can set media URL's
Demo

- Movies
- If grid is online...
  - IBM
  - Ohio
  - Etc.

The grid is down while we bang on things.