

# Second Life

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## A New Generation of Gaming

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## Abstract

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This paper is to give you a basic overview of a new gaming technology. It focuses on the most prominent attributes of the game *Second Life* and how its technology is set apart from other video games. It also gives you an idea of the company that put this whole project into play. You will see not only how the game works but also the economical criteria involved.

## Introduction

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What is *Second Life*? *Second Life* is a free online multiplayer game which has given new possibilities to players all over the world. Like its name implies, it is a virtual form of life in which players can interact in many forms. Unlike most video games, it gives its users more freedom to do different things to make the game more enjoyable. Users are given the opportunity to build objects, texture them, script them, and even sell them if they so choose.

*Second Life* was created by Linden Research, Inc (also known as Linden Labs). Linden Labs was founded in 1999 by Philip Rosedale to begin production for this virtual community. The game was launched on June 23, 2003. "Linden Labs has a network of offices which consist of 200 employees all over the world. These employees have worked on projects with Electronic Arts, Apple, Midway, Disney, THQ, Hasbro, Mattel, among many other companies ("The Company", 2008, par. 4)."



Figure 1: The Second Life Logo  
("Second Life", 2008)

## Players and Their Avatars

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Within *Second Life*, you will find players from around the world. Just as in everyday life, everyone wants to look different and feel they can express themselves how they choose. Everyone is given an avatar which they are allowed to modify in almost every way possible. The avatar consists of a shape that can be edited to make their character look however they wish. There are endless possibilities when it comes to making your shape.

On top of the shape is a texture which is called a skin. A player's skin comes with the basic default avatar from the game engine. Most players replace their skin at some point in time. Linden Labs allow you to download templates which players can upload into Adobe Photoshop and edit to make anything from skins, eyes, clothing, etc. One of the most costly things in *Second Life* is a player-created skin. Skins take time to create, therefore making them much more costly.

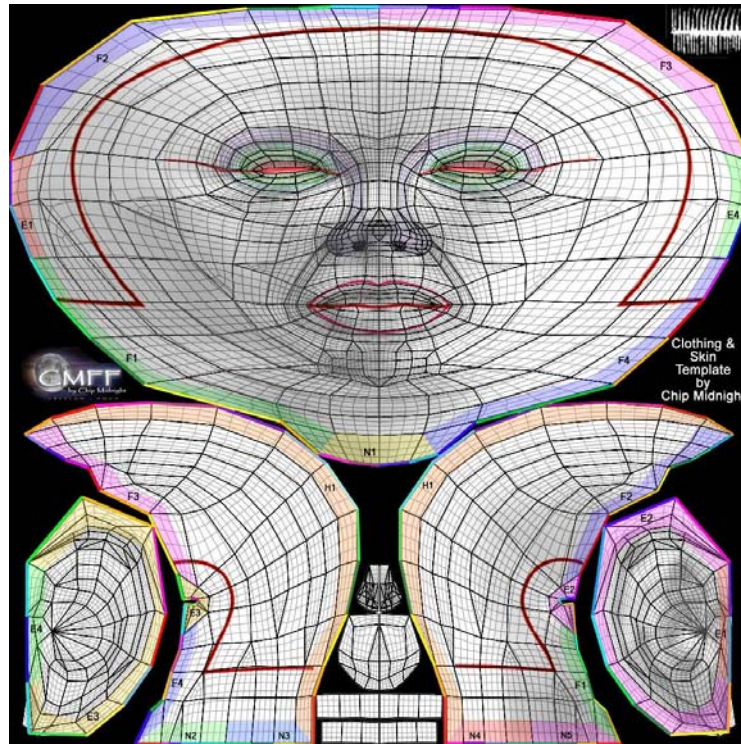


Figure 2: A template for head and face editing. This template would be used for creating clothing for your head as well as a part of skin creation (“Head Template”, 2008).

Animations also play a big role in avatars. You can customize your character with what is called an animation override which will play animations that you choose to make your character move or look more realistic. Players are allowed to make their own animations using advanced programs and then upload them into the game for use.

## Object Creation and Scripting

The biggest thing that sets *Second Life* apart from most games is its in-world object creation. It basically has its own engine to create objects. When creating objects you start from a basic shape such as a cube, circle, cylinder, etc. These objects are called prims in the game. From that point on you are given the capability to stretch, twist, rotate, and other ways of manipulation. Lastly you are given the capability to texture these objects much like you texture your shape with a skin. Even the textures are allowed to be manipulated to fit your object better. Flexible paths are also allowed if you wanted to make something such as a flag or banner.

## Scuplted Prims

Recently Linden Labs added the ability to upload scuplted prims into the game. This means that if you are familiar with *Maya*, or any other 3D sculpting program, you can created more realistic prims and then upload them into the game. This has been a huge improvement as it is rather difficult to make some things look very realistic with basic shapes.

## Scripting

Scripting is a very important part of the game. Rather than using a standard language, Linden Labs came up with Linden Scripting Language, or LSL. LSL is close to the standard C language ("Linden Scripting", 2008). With LSL, residents can write their own scripts and place them in different objects so that they will do certain things of their choice. All scripts start off with the basic format, and then can be edited to the residents' preference. Below is the very basic default script. Its only job is to type "Hello, Avatar!" into the default local chat window.

```
default
{
state_entry()
{
    llSay(0, "Hello, Avatar!");
}

touch(integer total_number)
{
    llSay(0, "Touched.");
}
}
```

Figure 3: The Default LSL Script ("Linden Scripting", 2008)

## Virtual Land

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A big part of *Second Life* is your ability to own virtual land. Linden Lab creates hundreds of virtual islands each month that are sold to residents for uses in commercial or residential purposes. To actually own land, you are required to have a premium membership which will cost around ten dollars a month. The only additional charge your land tier fee. The tier fee is dependent upon how much land you own. Many residents purchase land for commercial use such as renting areas out for builders to sell their objects or clothing. Some residents buy land simply to have a virtual house or a club for entertainment purposes.

Within the virtual land, you are given many options. The following are some of those options:

- Access and Ban List
- Streaming radio
- Streaming movies and video via QuickTime Player
- Total prim counts
- Owner or group owner information

*Second Life* has had its virtual land used for many different things including the following:

- Business Meetings
- Well-known company commercial usage
- Teaching
- Seminars
- Learning Tools
- Entertainment
- Charity Events

## Voice Server

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*Second Life* has recently implemented a voice application within its game engine that allows its residents to talk to one another via a microphone. Residents are allowed to talk through local chat if the land owner allows it, as well as they may call other residents through the private chat. This has made a huge impact on the game in the area of being used as a teaching tool. Some residents even sponsor classes that teach things such as scripting or clothing design.

## Economy

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With over 14 million residents, *Second Life* goes through a lot of Lindens (the in game currency). As of July 30, 2008, 1000L is worth \$4.09. To show just how much money goes through thousands each day. The following are a few of the daily updated economy statistics:

**Land**

**Land Sales by Resident**

Month	Total Square Meters Sold by Residents	Avg L\$ Paid Per Square Meter
July 2008 - MTD	105,909,104	2.3187
June 2008	125,429,056	2.8191

**Islands Added**

Month	Islands Owned (End of Month)	Islands Added (During Month)
July 2008 - MTD	21657	1680
June 2008	19977	1958

**Land for Sale Today**

Residents With Parcels for Sale	7,995
Total Parcels For Sale	55,264
Total Square Meters for Sale	28,021,680

**Square Meters Auctioned**

Month	Square Meters
2008 June	8,959,344
2008 July - MTD	1,141,488

**Monthly Spending by Amount (2008 June)**

Transaction Size	Residents
1 - 500 L\$	154,768
501 - 2,000 L\$	65,070
2001 - 5,000 L\$	49,480
5,001 - 10,000 L\$	34,782
10,001 - 50,000 L\$	61,014
50,001 - 100,000 L\$	13,243
100,001 - 500,000 L\$	9,461
500,001 - 1,000,000 L\$	742
Over 1,000,000 L\$	548
Total Customers Spending Money In-World	389,108

**Resident Transactions by Amount (2008 June)**

Transaction Size	Volume
1L\$	5,910,346
2 - 19 L\$	5,099,675
20 - 49 L\$	1,934,102
50 - 199 L\$	3,358,822
200 - 499 L\$	1,658,913
500 - 999 L\$	643,206
1,000 - 4,999 L\$	584,031
5,000 - 19,999 L\$	131,210
20,000 - 99,999 L\$	31,503
100,000 - 499,999 L\$	4,025
>= 500,000 L\$	303
Total Transaction Count	19,356,136

Figure 4: Economical statistics (“Economic Statistics”, 2008).

## Summary

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As you can see there are many aspects of *Second Life* that set it way apart from many other games. Some people claim it is more of just a social gathering rather than a game. It all depends on what you classify as a game. *Second Life* simply put is a virtual life. Linden Labs could not have made a better name for the game. Practically anything you can imagine in your life, you can in some way shape or form do the same in *Second Life*. The future of this gaming technology is endless. It's almost scary to see just how real a virtual community can be. For more information on *Second Life*, you can visit [www.secondlife.com](http://www.secondlife.com).

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