W I N T H R O P U N I V E R S I T Y

EDUC 651: Connecting Technology & Curriculum

S E C O N D L I F E

A White Paper

Explanations and Implications

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November 5, 2008

Defined

What is Second Life?

In 2003 a 3-D virtual world was constructed. This world is created by the residents and is a multi-user environment. This world is always changing. People from all around the world join Second Life each day. There are a variety of ways to use Second Life. It can be used for entertainment, advertisement, education, or communication.

Second Life's world is divided into areas of land called regions or Sims. The areas are rated PG or mature. The land can be bought or sold. Users can build a variety of sculptures and add language to them. Sculptures are images in the shape of an object or sign for users to view and/or explore. The sculptures explain a lot about the area a person is exploring.

Licensing and Cost Information

Second Life requires every member to comply with the licensing agreement. Linden Lab is the company that offers the services provided by Second Life. If the user declines the terms of the agreement they are not permitted to use Second Life. The software is downloaded to a computer and Linden Lab does not control the content within the program. They allow people to interact online as they choose. Members must be 13 years old or older.

Members between the ages of 13-17 are only allowed in certain areas of the virtual world. This area is known as Teen Second Life. Anybody over the age of 17 is not allowed in the teen areas. Each member of Second Life is encouraged to create a screen name that can not be linked back to them. Linden Lab employees monitor the teen area on a daily basis. They can not guarantee who is an employee of Linden Lab.

There are a variety of prices within Second Life. Basic membership is free. It will allow access to events, shopping, building, and scripting. Additional accounts can be created for a one-time fee of $9.95. Premium memberships can be purchased starting at $9.95 a month. The premium membership allows people to purchase land where one can live, build, display, and entertain. There is more customer support with the premium plan.

The price of land will change based on demand. There is a charge of $9.95 a month for the use of land. This fee is added to the monthly premium fee.

SECOND LIFE®

PRICING LIST

AS OF MAY 14, 2008

LINDEX *

Buying L$	$0.30 USD/transaction
Selling L$	3.5%
Processing USD Credits	$1 USD (Paypal) $10 USD (Domestic Check) $15 USD (International Check)
Adding Credit	$0 USD

PREMIUM MEMBERSHIP *

Monthly	$9.95 USD/month
Quarterly	$7.50 USD/month
Annual	$6.00 USD/month

LAND MAINTENANCE *

Size (Regions)	Size (sqm)	Current Price
1/128th	512	$5 USD/month
1/64th	1,024	$8 USD/month
1/32nd	2,048	$15 USD/month
1/16th	4,096	$25 USD/month
1/8th	8,192	$40 USD/month
1/4th	16,384	$75 USD/month
1/2	32,768	$125 USD/month
Mainland Region	65,536	$195 USD/month
Private Region	65,536	$295 USD/month
Openspace Region	65,536	$75 USD/month

LAND PURCHASE *

Feature	Current Price
Mainland Auctions	Variable
Private Region Sales	$1,000 per region
Private Region Moves	$150
Private Region Transfer	$100
Openspace Region Sales	$250

NOTE: All fees are charged in US Dollars (USD). Customers may be charged additional credit card fees for currency conversion from non-USD currencies to USD.

* VAT will be added where applicable; see table at right.

VALUE ADDED TAX (VAT) RATES

Country	VAT Rate
Austria	20.0%
Belgium	21.0%
Bulgaria	20.0%
Cyprus	15.0%
Czech Republic	19.0%
Denmark	25.0%
Estonia	18.0%
Finland	22.0%
France	19.6%
Germany	19.0%
Greece	19.0%
Hungary	20.0%
Ireland	21.0%
Italy	20.0%
Latvia	18.0%
Lithuania	18.0%
Luxembourg	15.0%
Malta	18.0%
Netherlands	19.0%
Poland	22.0%
Portugal	21.0%
Romania	19.0%
Slovakia	19.0%
Slovenia	20.0%
Spain	16.0%
Sweden	25.0%
United Kingdom	17.5%

In accordance with the sales tax regulations of European Union countries in which some of our Residents live, we must collect and remit Value Added Tax (VAT). **Currently, only Residents who live in the European Union are charged VAT.** The EU allows people and companies to register for VAT exemption, which we abide by. For more details, please refer to the VAT policy page on the Second Life website. Rates above are current as of May 14, 2008.

System Requirements

Second Life requires several features to run effectively. The cost for a computer to run this program and monthly internet fees is expensive. The requirements and recommended components are listed on the next page.

Windows Requirements	Required	Recommended
Internet Connection*:	Cable or DSL	Cable or DSL
Operating System:	2000, XP, or Vista	XP or Vista
Computer Processor:	800 MHz Pentium III or Athlon, or better	1.5 GHz (XP), 2-GHz (Vista) 32-bit (x86) or better
Computer Memory:	512 MB or more	1 GB or more
Screen Resolution:	1024x768 pixels	1024x768 pixels or higher
Graphics Card for XP/2000:**	• NVIDIA GeForce 2, GeForce 4 MX or better • **OR** ATI Radeon 8500, 9250 or better • **OR** Intel 945 chipset	**NVIDIA Graphics cards** 6000 Series: • 6600, 6700, 6800 7000 Series: • 7600, 7800, 7900 • 8000 Series: • 8500, 8600, 8800 GeForce Go Series: • 7600, 7800, 7900 **ATI Graphics Cards** X800, X900, X1600, X1700, X1800, X1900 • x2600, x2900 • x3650, x3850
Graphics Card for Vista (requires latest drivers):**	• NVIDIA GeForce 6600 or better • **OR** ATI Radeon 9500 or better • **OR** Intel 945 chipset	**NVIDIA Graphics cards** 7000 Series: • 7600, 7800, 7900 8000 Series: • 8500, 8600, 8800 GeForce Go Series: • 7600, 7800, 7900 **ATI Graphics Cards** • X1600, X1700, X1800, X1900 • x2600, x2900 • x3650, x3850

MAC Requirements	Required	Recommended
Internet Connection*:	Cable or DSL	Cable or DSL
Operating System:	Mac OS X 10.4.11 or better	Mac OS X 10.5.4 or better
Computer Processor:	1 GHz G4 or better	1.25 GHz G4 or better
Computer Memory:	512 MB or more	1 GB or more
Screen Resolution:	1024x768 pixels	1024x768 pixels or higher
Graphics Card:**	• ATI Radeon 9200 and above • **OR** ATI Radeon X Series • **OR** NVIDIA GeForce 2, GeForce 4 • **OR** NVIDIA GeForce 5000 Series and above	• ATI: X1600, X1900, X2400, X2600 • **OR** NVIDIA: 6800, 7600, 7800, 8800

System Requirements Figure (http://secondlife.com/support/sysreqs.php)

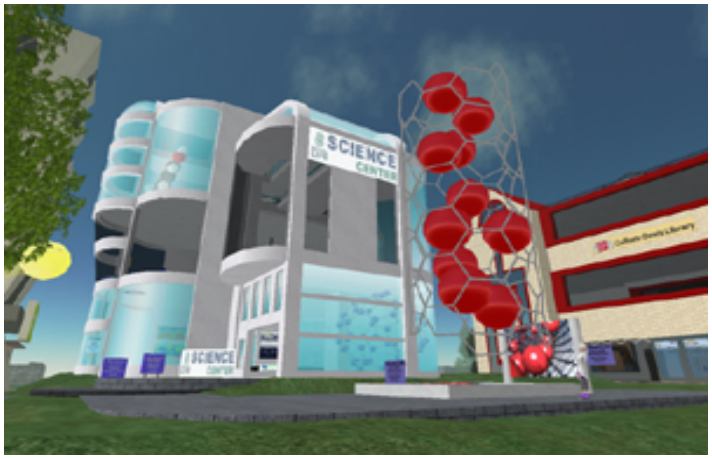
How does Second Life work?

After the software is downloaded to a computer an avatar must be created. The avatar can look like any person or animal the creator chooses. The avatars can wear a variety of clothes and have various physical features. They can be changed at any time.

Once an avatar is created a tutorial will begin. This tutorial teaches the student to move and communicate within Second Life.

There are several areas to explore. Students can visit the same public area and communicate with their classmates. They can visit Ohio State University or Harvard School of Law and communicate with one another. Students need to become comfortable with flying, walking, and communicating within Second Life.

After students are familiar with the world they can begin the learning process. Students can be teleported to any area and experience an engaging learning environment. When an avatar is teleported they are instantly transported to a new area within Second Life. An instructor has the ability to ask a student to be teleported to a specific area and the student must agree for the movement to occur.



Places Students Can Visit in Second Life

Students are able to explore places they would never have the opportunity to visit without an online learning program. One example is the Mars Japanese Gardens. Students can explore this area with their classmates and never leave the school. These gardens are replicas of the Japanese garden in Japan.

Sistine Chapel – Students can experience Michelangelo's art from the Italian Renaissance. In Second Life avatars can fly in the air and look closely at the ceilings.

Students can experience Ancient Rome. Avatars receive a toga upon arrival and complete an orientation. This is a

no fly zone. Which means aviators must walk the while they visit. Students can even experience riding in a chariot.

Several students enjoy sports. Students can have their aviators relax with one another and watch a baseball game at Yankee stadium.

Education

What Learning Problems are solved with the use of Second Life?

Students need to be fully engaged to maximize their learning experience. In Second Life students cannot become passive. Through the online program students will analyze, evaluate, act, use problem solving skills, and discover. In the traditional classroom students learn through the teacher lecturing and students practicing. Their learning is limited to their understanding of the content covered by the teacher. In a constructivist learning environment students learn through experience. They find meaning and understanding in their work through solving problems. The chart on the next page gives a detailed breakdown of the how knowledge is constructed by the learner verses students being told the information they need to learn.

	Constructivist *Second Life allows students to learn thru a Constructivist Model.*	Traditional	Second Life Application
Knowledge	Constructed, emergent, situated in action or experience, distributed	Transmitted, external to knower, objective, stable, fixed, decontextualized	Students experience places and learn through a virtual world that has a lot of real-world basis.
Reality	Product of mind	External to the knower	Students can experience real places that they may never visit.
Meaning	Reflects perceptions and understanding of experiences	Reflects external world	There is more meaning in learning when a student is engaged. Students find meaning from understanding. Second Life provides meaning.
Symbols	Tools for constructing reality	Represents world	Second life is visual and students understand this as reality.
Learning	Knowledge construction, interpreting world, constructing meaning, ill-structured, authentic-experiential, articulation-refection, process-oriented	Knowledge transmission, reflecting what teacher knows, well-structured, abstract-symbolic, encoding-retention-retrieval, product-oriented	Students will learn in Second Life thru engaging experiences and application. Upon visiting various places they can reflect.

Instruction	Reflecting multiple perspectives, increasing complexity, diversity, bottom-up, inductive, apprenticeship, modeling, coaching, exploration, learner-generated	Simplify knowledge, abstract rules, basics first, top-down, deductive, application of symbols (rules, principles), lecturing, tutoring, instructor derived and controlled, individual, competitive	

Modified from: Jonassen, D. H., Peck, K. L., & Wilson, B. G. (1999). *Learning with Technology: A Constructivist Perspective.* Upper Saddle River, NJ: Merrill.

Second life also gives students the opportunity to communicate with students from all parts of the world. It allows for experiences that can not be replicated in the traditional classroom. Students can create their own files within the virtual world or participate in events designed by other students. The virtual world is being used to motivate students from Urban and rural communities by giving them the opportunity to learn through experience.

NETS Standards covered in Second Life

The National Education Technology Standards (NETS) were designed by The International Society for Technology in Education. The standards help teachers to set goals for their classroom. They also give a measure of proficiency to aide in the advancement of technology within the classroom.

The following standards are covered when Second Life is used for instruction in the classroom:

1. Facilitate and Inspire Student Learning and Creativity
   - Online assignments – Teachers can design lessons with assignments given online. Students would complete the assignment and their answers would then be submitted to the teacher.
   - Explorations – Students can explore teacher directed areas to learn be interaction.
2. Design and Develop Digital-Age Learning Experiences and Assessments
   - Students can log onto a classroom Blog and answer questions related to their learning within Second Life.

- Students can be assessed in Second Life and the student responses are sent to the instructor of the class. A teacher can assign questions to a sculpture they have created and then the answer will be submitted to them. There are whiteboards in second life that can be used to present material and quiz students. Students will need to turn their work into the teacher by hand if a white board is used. The white board is similar to an interactive board used in several classrooms.

3. Model Digital-Age Work and Learning
    - The use of Second Life opens up the communication between peers and the community through digital resources.
4. Promote and Model Digital Citizenship and Responsibility
    - This online community has a lot of areas that are not appropriate for the educational setting. Students learn about online safety and how to be responsible with the aide of the instructor.
5. Engage in Professional Growth and Leadership
    - The teacher must communicate with other teachers and become involved in the learning experience for it to be a success with the students. The professional growth opportunities with Second Life are endless.

Environmental Factors with Second Life and How to use Second Life in the K-12 Setting

It is challenging to use Second Life in the K12 setting. There are age restrictions on most of the regions and it can be difficult to communicate within the region. With the creation of Virtual World Campus teachers can interact with their students. Virtual World Campuses will assist teachers in designing a community within Second Life for their students to use.

The most effective teaching tool with Second Life in the K-12 setting is Virtual World Campus. FireSabre partnered with Global Kids to give teachers the opportunity to use Second Life with their students. Teachers can design a learning environment to fit their curriculum, budget, and class size. This is a program to use with Second Life. There is a fee involved. The fee depends on the number of

students. It does give schools the online safety needed to allow them to log onto the program.

How can I start using Virtual World Campus?

Contact FireSabre.

Obtain background checks for all adult participants.

1. Have FireSabre create avatars for your staff and students
2. Explore the Virtual World Campus, and select land appropriate for your project. We have plots to match projects of any size or budgetary level.
3. Build or obtain content for your project. FireSabre's experienced builders and scripters will work with you and build according to your needs.

From: http://firesabre.com/index.php?option=com_content&task=view&id=15&Itemid=9

Resources

The resources used for this paper are current and are created by educators, creators of Second Life, and academic researchers.

1999. “Learning with Technology: A Constructivist Perspective.” A Book by D. Jonassen, K. Peck, and B. Wilson

http://www.districtadministration.com/viewarticle.aspx?articleid=1725&p=2: Article of Second Life in Education

http://firesabre.com/index.php?option=com_content&task=view&id=15&Itemid=9: The official FireSabre website

www.secondlife.com: The official Second Life Website

http://en.wikipedia.org/wiki/Second_Life: Used for definition

http://www.districtadministration.com/viewarticle.aspx?articleid=1725&p=2: Article of Second Life in Education