

The Power of Virtual Worlds in Education: A Second Life Primer and Resource for Exploring the Potential of Virtual Worlds to Impact Teaching and Learning

By The ANGEL Learning Isle Steering Committee

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Introduction

A virtual world is an internet-based, simulated environment where users interact via motionable avatars, graphical images that represent people. Over the past several years, educators have begun exploring virtual worlds as a powerful medium for instruction.

- Virtual worlds' persistence allows for continuing and growing social interactions, which can serve as a basis for collaborative education.
- Virtual worlds give users the ability to carry out tasks that could be difficult in the real world due to constraints such as cost, scheduling or location.
- Virtual worlds can adapt and grow to meet different user needs.

This paper discusses educational applications of virtual worlds particularly as they relate to the Second Life[®] (SL) virtual world. Developed by Linden Research, Inc. (Linden Lab), the Second Life 3-D virtual world opened to the public in 2003 and today is inhabited by millions of "residents" from around the globe. The education-rich opportunities SL provides are limited only by the educator's imagination.

Using Virtual Worlds to Study Virtual Worlds

What happens in a Web 2.0 virtual world? One way Second Life is utilized in education is simply for the study of virtual worlds. Students can learn about the different types of technologies employed in virtual worlds and how they are applied by the "residents." If people can build whatever they choose, what will they create?

What types of things do people do for fun in a virtual world, and why? Activities like dance clubs and weddings are popular in Second Life.



What do people do in virtual worlds? And Why?

Students experience and study the social activities and interactions that take place in virtual worlds.



How do economies work in a virtual world?

Virtual worlds have economies. Is there a relationship between real world and virtual world economics? What will people pay to do in a virtual world? Can people make money? How does the economy work in a virtual

world? What types of business models are successful?

The study of people is another interesting topic of study in virtual worlds. Why do people come to SL? To be someone else? To play a part in a different time? To be a part of a sub-culture not found in real life (RL) or just to be themselves?



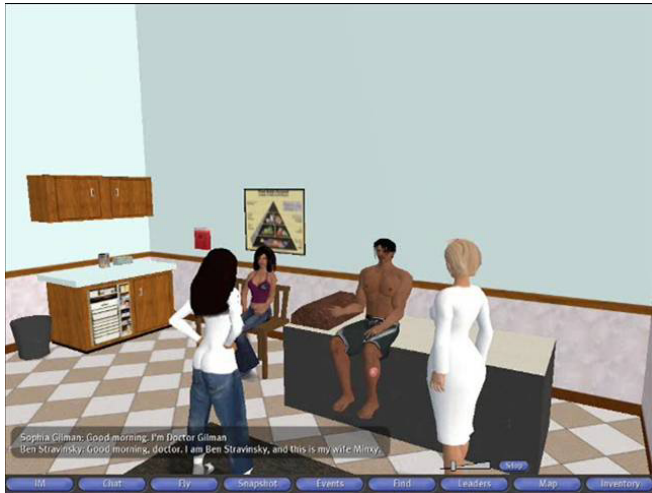
When you can create yourself to be anyone or anything, who or what will you be?

Do you try to imitate a famous person? Do you choose another time period or way of life? How about making yourself into another species or subspecies entirely? Or perhaps you just try to be a better looking, taller version of yourself. Virtual worlds provide a unique environment to study human nature outside the traditional bounds of reality.

Learning Activities in Virtual Worlds

Faculty also use virtual worlds for learning activities, where students apply, analyze and problem-solve using course content and ideas. This can include:

- Role-play.
- Operating simulated equipment.
- Designing and building things such as houses, bridges, clothing, jewelry, businesses, newspapers, etc.
- Interacting with instructor-built or creating student-built simulations of physical or procedural processes.

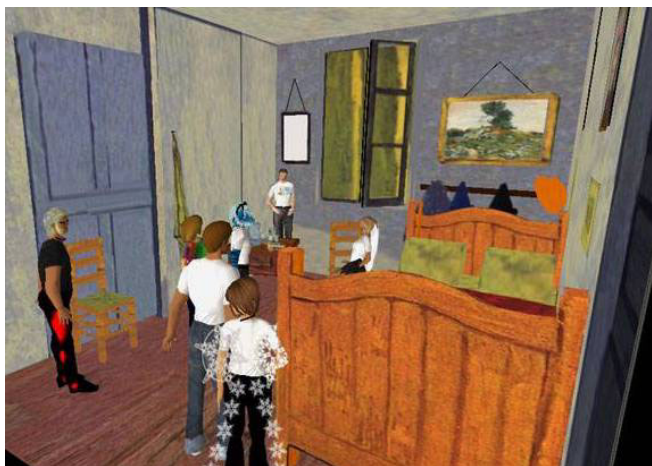


Virtual learning activities engage students in higher level cognitive thinking.

Educational games and simulations in virtual worlds engage students in higher-level cognitive thinking, such as interpreting, analyzing, discovering, evaluating, acting and problem solving. The ability to interact with one another simultaneously provides students the opportunity to learn concepts not easily learned from a textbook or lecture.

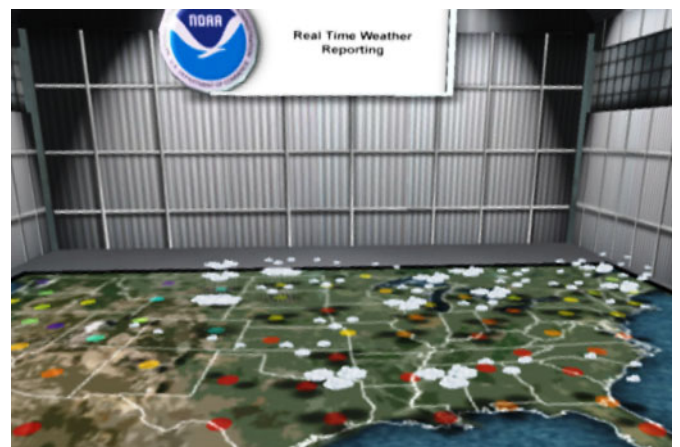
Suggested sites for student activities in SL include:

- **Humanities** – Sistine Chapel, Van Gogh Museum, the Louvre, the Basilica of St. Francis: Virtual field trips to these places surround students in art and eliminate the need to look at slides from a projector



Virtual worlds allow students to actively participate in learning experiences.

- **Immersion** – New Hope, Virtual Hallucinations: Students become part of the concepts being taught when immersed in the sounds and sights of the experience.
- **Earth Science** – National Oceanic and Atmospheric Administration Island: A virtual weather map overlays real-time weather on a map of the United States. Soar through a hurricane on the wing of a research aircraft, rise gently through the atmosphere atop a weather balloon or search for a hidden underwater cave on a side trip from a NOAA submersible.



Visit NOAA Island for real time virtual weather reporting.

- **Space** – Spaceflight Museum: Experience flight and weightlessness.



The International Spaceflight Museum hosts exhibits and events about real life space vehicles and rockets.

- **English or History Role Play** – Dodge City, Avilion, 19th Century Village on Caledon, the Old Globe Theater: Recreations allow students to become characters in novels, plays, wars and act accordingly.

Virtual Worlds as a Communication Medium

SL can be especially valuable in distance learning, giving students a common place to interact regardless of their physical locations.

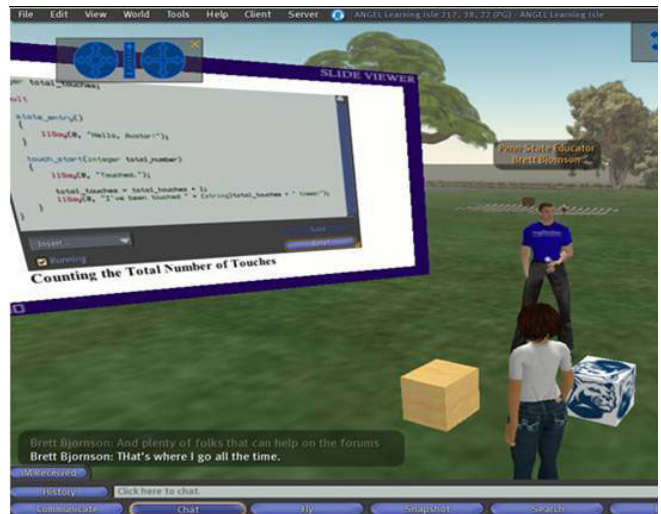


Discussions in virtual worlds provide distance students a common place to interact.

On Terra Incognita, student discussions can be held in “facilitation modules” that isolate each discussion group for privacy and save a transcript of the discussion for review by the instructor.



Students can make presentations in SL. Both students and faculty can create video from within the virtual world, called machinima.



Student and faculty presentations “come to life” in virtual worlds.

Internships in Virtual Worlds

The online learning program at Monroe College, Bronx, New York, takes advantage of the unique opportunities that exist on Second Life to provide students virtual internships. Considered a vital part of each Monroe student's academic program and their employment success, students in most Monroe College programs are required to complete one or two full semester internships.

In establishing the Monroe College Office of Online Learning Internships in Second Life, Monroe sought companies willing to take on teams of interns. Interdisciplinary teams were established that included, for example, a business student and an IT student who provided technical support for the business student.

A typical internship job might be to promote a product or activity for a company. This might entail creating and distributing handouts. The business student creates the handouts and designs the method of distribution. The IT student provides scripts and textures needed to implement the solution. Another example might be an

artist on Second Life who needs a gallery to showcase her/his work. The IT student builds the gallery while the business student helps the artist establish her/his business on Second Life.

During its first year the Monroe College Office of Online Learning Internships in Second Life focused on building community, networking and fun! Working primarily for small businesses and non-profit organizations, interns acquired real-life experiences, applied the skills and knowledge they acquired in the classroom to the workplace and were able to evaluate their strengths and weaknesses and target the skills they needed to work on prior to graduation. The internships resulted in positive networking opportunities and, in two cases, employment.



Monroe College interns meet in the Interns' Lounge on Sunday nights to discuss experiences, share ideas and have fun.

Internship possibilities in SL include:

- **Business** – marketing, sales, outreach, customer communications, relationship building, public relations, accounting, project management, advertising, market testing, entrepreneurship, human resources, finance, retailing, and more.
- **Criminal justice** – security and research.
- **Allied health** – virtual hospitals, labs and medical offices.
- **Information technology** – object-oriented building and scripting, project management, graphics design, web development, quality assurance, new computer video, audio and graphics development

and working in software development and interdisciplinary teams.

- **Hospitality management** – hotels and resorts as the entertainment industry explodes in Second Life.
- **MBA students** – management and research opportunities.

Internships in Second Life have literally opened up a new world for Monroe students. They have exposed inner-city students to international companies and have provided valuable experiences and opportunities for students who have hectic schedules and are unable to participate in onsite internships during traditional work hours.

Getting Started in Second Life

So, you've decided to give it a try and need to know where to start. First, go to the Second Life website <http://secondlife.com/> to create an SL account. You will be given the option of creating a free account or a premium account that has a charge associated with it. Starting out, a free account will be fine. You can upgrade to a premium account later if you like.

The first page after you click the "Get Started" link offers the ability to enter SL through a group based on your interests or to enter SL through Orientation Island. You'll likely want to skip this step and go to the SL registration page. On that page you will be asked to:

- **Create a name for your avatar** – You can choose any first name you like and are given a list of options for last names. Be sure the name you choose is the name you want, spelled exactly as you want. You cannot edit your avatar's name after this point.
- **Provide an email address** – You may want to use a separate account for SL email if you think you will join many SL groups. You have the option of not receiving notices sent to the email account provided, but it is an all or nothing proposition. You may miss announcements concerning events and

trainings in SL if you choose not to receive email from SL.

When these details are complete, you will be transported to Orientation Island. Here you will learn to walk, talk, fly, drive, search location and modify your shape and clothing. You land in the middle of four walkways each leading to a training area. After you've completed all four areas, you will be transported to an SL Help Island.

While on the Help Island you can check out SL Groups to join to find out where you might find things to see and other avatars with your interests. If you like, join a couple of "shopping" groups. They will send notices on where to find good freebies, so you don't need to look like a "newbie" any longer than you choose to. Search the group to determine if you can freely join. If you can't, search the list of names for an owner or officer. Contact this person directly and ask to join the group.

After landing on Help Island, you can teleport (TP) to other areas in SL. Do searches to find places you would like to TP to. A good first stop is ANGEL Learning Isle. Besides great volunteers there to help you, ANGEL Learning Isle offers tutorials, classrooms, teaching areas, offices and other resources in an educator-friendly environment. Until you know your way around SL, ANGEL Learning Isle will be a good home base.

ANGEL Learning Isle in Second Life

ANGEL Learning Isle in Second Life is an ANGEL Learning research and development project designed to provide all educators a place to experiment in the use of virtual collaboration technologies for online learning. The ANGEL Learning Second Life URL is: <http://slurl.com/secondlife/ANGEL%20Learning%20Isle/61/177/24>

ANGEL Learning Isle features:

- **Orientation Garden for Learners** – Tutorials teach basic navigation and vision skills for productive SL educational experiences.



Orientation Garden.

- **ANGEL Concourse and Three Display Areas** – Display student or educator projects for others to review.
- **Virtual Classroom**



A classroom can take any shape in a virtual world.

- **Educators' Tool Gallery** – Offers tools created by the Second Life Educators (SLED) Community and instructors on how to copy them for your own use.

- **Teleport Kiosk** – Teleport to other educator-built, in-world sites.



Easily teleport to other educational sites from ANGEL Learning Isle.

- **ANGEL Learning's Virtual Headquarters and the ANGEL Learning Isle Steering Committee Headquarters**
- **Faculty Offices** – Hold student meetings or group collaborations in SL when you like.
- **SLED Sandbox** – Teaches basic building techniques and provides a practice area for skills development.



Learn and practice SL building skills.

Second Life Resources

101 Uses for Second Life in the College Classroom

<http://facstaff.elon.edu/mconklin/pubs/gishandout.pdf>

If you want even more ideas for using Second Life in your courses, check out this paper from Dr. Megan Conklin at Elon University.

Envisioning the Educational Possibilities of User-Created Virtual Worlds

http://www.editlib.org/index.cfm?fuseaction=Reader.ViewAbstract&paper_id=24253.

This article develops a model to match real-life course topics to potential teaching methods and techniques in virtual worlds.

Second Life Education Wiki

http://www.simteach.com/wiki/index.php?title=Second_Life_Education_Wiki

This wiki includes information about research, teaching, programs, competitions, publications, groups and much more.

Second Life in Education Wiki

<http://sleducation.wikispaces.com>

Focused on the educational possibilities of virtual worlds, this wiki provides an extensive listing of education-related projects in Second Life, such as consciousness raising, data visualization, historical recreations, immersive exhibits, simulations, and virtual tourism. Plus, it includes numerous resources for learning about Second Life in general, including skills tutorials.

Second Life Educators (SLED) Mailing List

<https://lists.secondlife.com/cgi-bin/mailman/listinfo/educators>

Join this growing community of practice for educators interested in teaching with Second Life. Conversations include projects, events, issues, problems, and opportunities. WARNING: This is a very active list.

Second Life System Requirements and Client Download

<http://secondlife.com/corporate/sysreqs.php>

Second Life will run on most newer Windows, Macintosh, and Linux computers, but it also requires a broadband connection and a graphics card. Check this webpage for specific system requirements and to download the latest Second Life client program.

Second Life: The Educational Possibilities of a Massively Multiplayer Virtual World.

<http://connect.educause.edu/library/abstract/SecondLifeTheEducati/43821>

These online presentations tour Second Life, demonstrate educational possibilities, and also introduce a vision mechanism for incorporating user-created virtual worlds into teaching and learning strategies.

The Unofficial Complete Fool's Guide to Second Life

<http://www.sldrama.com/index.php?page=2>

If you want to learn how to use Second Life, download this great online reference book by Foolish Frost. It covers everything from the basics to advanced topics.



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