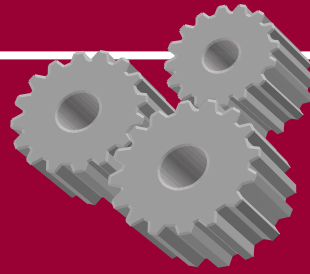


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The SLEngineer



Summer 2007

Volume 1
Issue 2

Engineering for the Universe Inside the Metaverse



Responsible Water Use at the Center for Water Studies

SLEDUCATION FOR ENGINEERS



College Campuses
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"Hello Garbage" Enters
Second Life

Augmented Reality
Enhances Second Life



AUGMENTED REALITY MEETS SECOND LIFE

This photo illustrates the projection of two avatars from Second Life into a real life space. Photo by Blair MacIntyre.

Imagine walking down the street in an unfamiliar town looking for the restaurant your hotel's concierge just recommended. You are wearing what looks to be a normal pair of glasses, but actually the glasses are allowing you to see a projection on each building of the names of each establishment with the year it was established, the addresses, and the hours of operation. Those of you thinking that this technology, called augmented reality, is years away from implementation may be surprised to find that not only have researchers been working on it for a long time, and are now using Second Life to further its development.

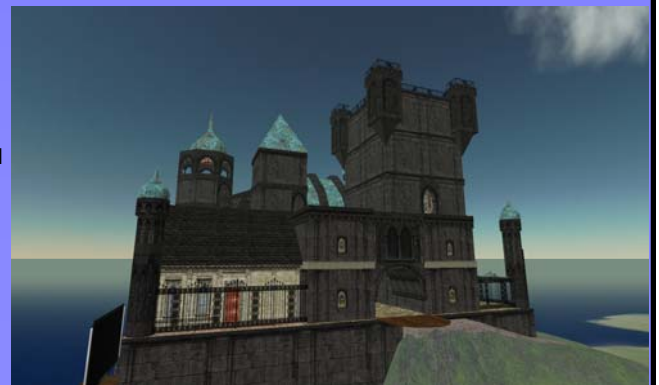
The basics of augmented reality involve projecting graphics, audio, and other sense-based information onto the real life environment in real-time. Blair MacIntyre, director of the Augmented Environments Lab at Georgia Tech has been working on the development of augmented reality since 1991. Recently, he, along with two other researchers, have developed an area in Second Life that is a scale model of a real life environment and, using Second Life's open source code, have configured the Second Life viewer to project a virtual image from Second Life into the corresponding real life space in real time. "We can superimpose SL content on a real space, in real time (in our modified client). Any avatar or object in the SL space appears in the real life space. If we sent the augmented reality back into SL as a Quicktime media stream, you could walk into one of our stages and see your avatar walking in the real space—perhaps on a 'screen' on the wall of the SL space," said MacIntyre.

The applications of this technology for the engineer are incredible.

"From an engineering viewpoint, you could build a building in SL and then look at it at the real site," said MacIntyre. The technology would also allow someone from Second Life to be projected into a meeting in real life; although at this time, MacIntyre said there would probably be a noticeable delay of a few seconds (due to video encoding and broadcast).

Those interested in finding out more can visit the Augmented Reality sim or e-mail MacIntyre at blair@cc.gatech.edu.

The SL site for augmented reality research conducted by the Augmented Environments Lab of Georgia Tech.





HELLO GARBAGE

REAL SOLID WASTE COLLECTION HANDLED VIRTUALLY

If anyone noticed the colorful garbage trucks scattered across the grid with the friendly "Hello Garbage" logo, they may have thought this was just another SL vehicle to add to their collection. But these trucks, offered for free at eight different locations in-world, represent a real life Dutch company based in the Netherlands. Yes, even the solid waste industry has embraced Second Life.

Yabu Yifu offered a notecard with information about the company's SL sites: "As a fully web-based company we think it is necessary to be present on Second Life—as a matter of technology, but as a

matter of publicity as well. So together with Yabu Europe (<http://www.yabu.eu>), we developed a concept for Hello Garbage on Second Life."

At each of the company's SL sites, a garbage truck sits on a section of concrete pavement waiting for an avatar to take it away. "The garbage trucks look like the ones in real life, said Yifu. "Their appearances makes heads turn, because of their colorful and refreshing design. All users are allowed to drive with this garbage truck, with no costs whatsoever. When anyone drives off with the truck, a new truck will be parked on the parking spot within three

minutes. Besides that, everyone who has driven the truck receives his own truck and HUD in his inventory. With those items, one can call the truck to let it appear at each desired moment. Of course it is possible to pass the truck and the HUD on to other users. To make sure Second Life does not get polluted with our trucks, unattended trucks will disappear after ten minutes."

Hello Garbage operates on a 24/7 schedule and conducts all of its business through the Internet. More information can be found at <http://www.hellogarbage.com> or by e-mailing info@hellogarbage.com.



Center for Water Studies

Water is our world's most vital resource, and we are all aware, either consciously or subconsciously, of its importance. So much so that even though there is no physical need for water in Second Life, a choice was made by the creators of this virtual world to place a vast ocean surrounding the masses of land in a manner similar to that found in real life. Inland, where there is no ocean, builders enhance their properties with the placement of streams, lakes, waterfalls, and other water features. Realtors find that land boasting a water frontage can usually demand a higher purchase price. This importance of water as a resource and asset is further conveyed in the grid in an educational and visually pleasing manner at the Center for Water Studies on Better World Island in Second Life.

Although the Center was originally founded by others, the current build was developed in 2006 by Delia Lake,

an avatar in Second Life who has also established the All About Water group to own the land and support the functions and events of the Center. Lake created the current development with three purposes in mind. "The first is to provide a place with naturally simulated environments for the public to enjoy; secondly, is to raise awareness of critical, real life issues, and third is to inspire real life research and action for more prudent and informed real life, water resources management," said Lake.

Each of the areas is populated with the assortment of plants, animals, and sounds that would be found in that particular environment.

Six ecosystems, or microhabitats, are established at the Center on 5984 square meters including a pacific beach with a temperate rainforest, a pond area, a waterfall, a mangrove swamp, and a coral barrier reef and undersea environment.

Each of the areas is populated with the assortment of plants, animals, and sounds that would be found in that particular environment. "We have grouped plants and animals that thrive under the

A temperate rain forest has been modeled at the Center for Water Studies. This ecosystem is located along a Pacific coastline.

same real life environmental conditions," said Lake. This has allowed more biological elements to be represented in the limited area available, although not all elements are always found together in each system in real life. Many of the plants and animals found at the Center have been donated by Second Life creators, and other volunteers continue to donate time, money, and talent to build and enhance the Center.



The temperate rainforest and Pacific coastline, located on the west side of the Center, displays a type of environment that lacks the same level of real life awareness given to the tropical rainforest. "The temperate rainforests have been so little studied and almost totally destroyed," said Lake. "There are only about 20 people worldwide in real life who study these.

The temperate rainforests have much more biomass than the tropical ones and are almost all coastal watersheds. They get 80 or more inches of rain per year and are major areas of carbon sequestration and water table replenishment." Temperate rainforests are typically found in northern California up to almost Alaska, through British Columbia, in areas of Scotland,

Australia, New Zealand, and Chile. "In California, the rainforests are predominantly coastal redwoods and cypress family trees. To the north they are douglas firs and stika spruce. Ninety-four percent of the U.S. temperate rainforests have been logged. They are highly stressed and endangered."

The temperate rainforest area at the Center is represented by evergreens and eucalyptus. Lake said they have plans to add a microhabitat in the upper canopy of the trees. There are also representations of wildlife such as a wolf, an owl, and a moose. Activities located in this area include fishing with virtual fishing poles provided on the beach and sailing. Those visiting can also read more about the temperate rainforests by accessing the notecard provided in this area.



The estuary ecosystem transitions to a mangrove swamp on the north side of the Center. "Mangrove is a generalized term for a couple of hundred different coastal plants," said Lake. "They all have extensive root systems and all are water tolerant. These plants have the ability to take up into their systems heavy metals and so purify the wa-

The mangrove swamp has a wide collection of plant and animal life.



This is the original development of the Center for Water Studies. Photo by Delia Lake.

our group named her Hazel."

Further inland to the south is a cistern and a freshwater pond environment. The pond is filled with wildlife, big mouth bass, and freshwater plants. The pond, which changes with the seasons, currently has tadpoles swimming in the water. There are pose balls spaced along the pond edge allowing visitors to sit and dangle their feet in the water. "The pond is a great place to hold small, group meetings."

Lake and her group have given presentations and tours of the Center to real life and Second Life groups. The Planet Thoughts Environmental group uses the Center for their meetings. The elevated amphitheater provides an area for streaming video and showing powerpoint presentations. On earth day, the Center hosted a discussion about water rights.

Those interested in visiting the Center can travel to a central teleport hub at Better World Island and then choose the teleport option to the Center.

ters."

Those visiting the swamp at the Center will find alligators, hummingbirds, and dragonflies along with a wide selection of plants that have adapted to the presence of brackish waters in the transition zone between fresh water and salt water.

The waterfall area, found further inland, feeds the mangrove swamp from a pond filled by a tall cascade of water. There is a place near the top of the falls to sit and reflect in the non-threatening presence of a black bear.

An oceanside beach is established on the east side of the Center with an underwater coral reef and undersea habitat. Lake and her group are in the process of further developing the coral reef into a holodeck-based presentation and separating the undersea habitat into a temperate and a tropical zone. Currently sea creatures from both environments are located in the same area at the Center. "The tropical fish and the orcas would not live together in real life," said Lake.

The ocean environment also provides an area to kayak or ride the dolphins and orcas. "If you click on the dolphin, you will attach to her fin. I say her because one of



Delia and her group reconstructed the Center for Water Studies creating six ecosystems on the parcel. Photo by Delia Lake.

ENGINEERING-RELATED BUILDS IN SECOND LIFE

We have scoped out some creations across the grid that may appeal to the engineer in you. Unfortunately, most of these image-rich locations have been rebuilt so the photos are provided only to illustrate how sewers can be depicted in Second Life.



Dark City in the Equator Sim

Unfortunately, the developers of this sim have rebuilt their sewers so visitors will no longer see the images shown above.



Sonogno Sim

Colorful, graffiti-filled sewers, once located in Sonogno, were populated with alligators, abandoned vehicles, and burning barrels.



Misty Vale Sim

70/43/31

Medieval sewer system in Misty Vale Sim. This is the only location with remaining sewers.



(Unknown location)



Colleges Across the Grid—Getting SLEducated

There are an ever increasing number of colleges creating a presence in Second Life. And the manner in which each institution chooses to represent its university or college varies from a simple structure or sign on a small parcel to large, elaborate builds on entire sims.

With the return of students to college in the fall, the SLEngineer Magazine has chosen to profile in this summer issue, each college or university offering technical programs that could be found in Second Life with some type of in-world presence.

SL builds for colleges may also interest those already working in technical fields who have obligations to meet continuing education requirements.

Information for this profile was requested from each college or university in-world if it was determined to have a technical program offered at

its real life institution or at an in-world location. For those institutions that did not offer to submit this information, the profile was developed from the data presented at the institution's SL build or at its Web site. (Apologies are made to any that were not included—so many colleges were showing up at such a rate that it was difficult to ensure each was discovered in time to be profiled.)

Virtual campuses in Second Life offer new and innovative methods for learning. Bowling Green State University offered the following list of benefits on one of the billboards on their sim:

WHAT THE VIRTUAL WORLD OFFERS

- IDEAL for distance learning
- Unlimited workshop/lab space
- 3-D models
- Emergent learning environments
- Collaborative networks

- Visiting lecturers
- Educational adventure parks
- Avatar to avatar interaction

In addition to the many established builds, there are numerous groups established to support faculty, students, and alumni of these universities.

With schools still finding their way and working to develop programs, those visiting school sites will find a wide variety in the manner in which each school is utilizing Second Life. While many have set up their site only to distribute information about the real life school, many more have either established or are considering the establishment of classes in Second Life.

It may only be a matter of time before the first, official, graduation ceremony is held in Second Life.



ASHWORTH UNIVERSITY

Norcross, Georgia

SL Location: Lipshen 6/198/64

Land Size: 1024 sq. m.

SL-related Group: Ashworth University

SL Contact: JoeMac Yalin or yy Yoshikawa

Web site: <http://www.ashworthuniversity.edu>

E-mail: jmaclaverty@AshworthUniversity.edu or rrode@AshworthUniversity.edu

Ashworth University is represented in SL with a modern and open-style building and adjacent yard. The school's build offers information about online classes

leading to certificates and career diplomas in areas such as landscaping design, graphic design, and computer-related subjects such as networking, programming, and Web site design. A more comprehensive list can be found on the school's Web site.



BOWLING GREEN STATE UNIVERSITY (BGSU)

Bowling Green, Ohio

SL Location: Bowling Green State 117/179/26

Land Size: One sim

SL-related Group: Bowling Green State University

SL Contact: AnthonyFontana Chevalier

Web site: <http://www.bgsu.edu>

Bowling Green State University is located on an entire sim dedicated solely to the school. Although development of the entire sim is still in progress, the school already has a welcome area, a gathering place

on the waterfront, and two buildings. BGSU states the purpose of its SL build in a notecard distributed by Chevalier: "The BGSU virtual campus or metaversity is an island in Second Life where BGSU faculty, staff, and students can interact, research, and develop Second Life as a platform for education. It will serve as the home base of operations for the OLN Second Life Learning Community."

The curriculum at the real life BGSU includes classes in aviation, construction management, electronics, computer technology, engineering, and architecture.



BRIGHAM YOUNG UNIVERSITY—HAWAII

Laie, Hawaii

SL Location: Zarahemla 43/159/25

Land Size: 2992 sq. m.

SL-related Group: none

SL Contact: Skyler Goode

Web site: <http://www.byuh.edu>

Those visiting the SL build for Brigham Young University—Hawaii will find a building with a classroom and gathering areas. Those attending the real life institution will find classes in computer science and information systems.

mation systems.

**BROMLEY COLLEGE****Bromley, Kent, UK****SL Location:** Daydream SE Islands 22/104/24**Land Size:** 4096 sq. m.**SL-related Group:** none**SL Contact:** Clive Pro**Web site:** <http://www.bromley.ac.uk>

The Second Life site of Bromley College is located on an island-themed sim. In this grass roof island retreat, Bromley College offers several tools and presentations highlighting virtual learning. The second floor offers a large collection of tutorials on CSS,

PHP, HTML, C programming, Java, and other computer-related applications. Bromley College also is represented at another build on Daydream SE Islands which offers an interactive and informative tutorial on LSL. The real life college offers classes in computer technology and electrical and mechanical engineering.

**CENTRAL PIEDMONT COMMUNITY COLLEGE****Charlotte, North Carolina****SL Location:** CPCC Campus 254/8/38**Land Size:** One sim**SL-related Groups:** CPCC Employees, CPCC Futures, CPCC Island Developers, CPCC Island Exchange Educators, CPCC Islanders, SPCC Student Life**SL Contact:** Icabad Vallejo**Web site:** <http://www1.cpcc.edu>

Central Piedmont Community College (CPCC) states in their notecard that their island is "to be an innovative and dynamic experiment into what is possible in the emerging 3-D world with regards to education,

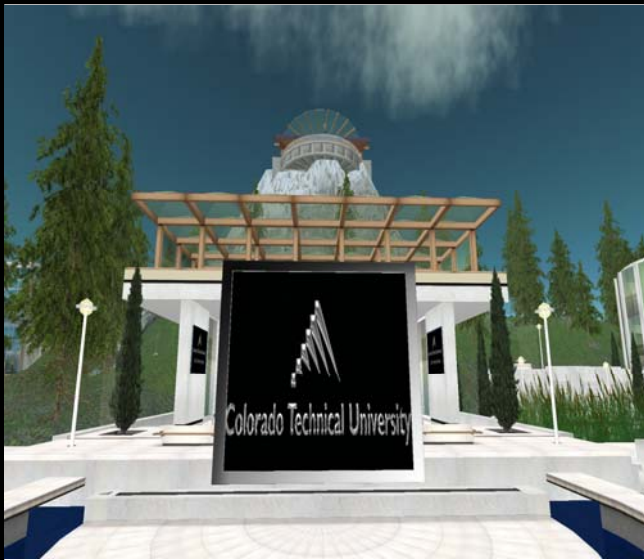
collaboration, and simulation." The sim has an SL representation of one of the college's real life buildings, an interesting collection of open-air offices and student spaces suspended over the ocean along one side of the sim, a welcome area, and a sandbox. The real life college offers classes in civil engineering, computer, architectural, electrical engineering, GIS/GPS, mechanical engineering, and surveying technology.

**CLEMSON UNIVERSITY****Clemson, South Carolina****SL Location:** Clemson University 212/42/23**Land Size:** One sim**SL-related Group:** Clemson University Graduate School**SL Contact:** unknown**Web site:** <http://www.clemson.edu>

When fully developed, the Clemson University SL sim will have a library, graduate students center, an amphitheatre, and two buildings named after structures

on the real life campus.

The real life university has an engineering college offering a full-range of engineering and physics programs.



COLORADO TECHNICAL UNIVERSITY (CTU)

Colorado Springs, Colorado

SL Location: Colorado Tech 63/97/36

Land Size: One sim

SL-related Group: none

SL Contact: Doktor Wise (Deborah Wise, University Director of Learning Technology)

Web site: <http://www.ctudegreenow.com>

The CTU build in SL, opened in June 2007, was professionally developed by the school using the services of New Media Consortium. The site consists of a gallery, boardwalk, alumni center, an outdoor event area, and an executive meeting area. Doctor Wise said, "we have also chosen to share our island space with the Academy of Second Learning, giving their campus approximately 25% of our space."

As for the layout of the sim, Wise said, "In order to have the island represent the University as a whole, as opposed to one particular campus, we tried to keep the references to Colorado low-key, but the central mountain is a reminder of Pikes Peak, clearly seen from the Colorado Springs campus."

Faculty at CTU are using SL to enhance their RL classes. We are working our way up to having several instructors who want to bring students into Second Life for at least part of their classes. Since the use of Second Life is not required, there needs to be an opt-out for those students who don't care to come in-world, as well as course outcomes that measure a particular proficiency that can be documented in Second Life. So there are some logistical concerns to offering actual coursework in world, but we are moving toward making virtual worlds a permanent part of the Colorado Tech pedagogy."

CTU offers the following programs at five campuses and through an online division: bachelor's and master's programs in Computer Science and master's programs in computer and electrical and systems engineering.

**FIND OUT MORE ABOUT EDUCATION IN SECOND LIFE @
www.simteach.com**



DUKE UNIVERSITY

Durham, North Carolina

SL Location: Duke Student Affairs 205/221/28

Land Size: One sim

SL-related Group: Duke University, Duke University Student Affairs

SL Contact: unknown

Web site: <http://www.duke.edu>

Duke University is represented on the grid by a build developed by the Duke University Student Affairs group. The sim, currently under development, has a

building for information related to student affairs.

In real life, the Pratt School of Engineering at Duke offers a Bachelor of Science and a Master of Science program in biomedical, civil, electrical and computer, and mechanical engineering. The school also offers an architectural engineering certificate.



ENST BRETAGNE

Brest, France

SL Location: Telecom Bretagne 172/222/0

Land Size: One sim

SL-related Group: none

SL Contact: Marie-Catherine Mouchot, Philippine Hawks (SL)

Web site: <http://www.enst-bretagne.fr>

The SL build of this French institution, which recently opened at the end of June, was developed for several purposes. Marie-Catherine Mouchot said, "We plan to use our island for online teaching for our students

abroad, meetings with the students of our continuing education programs, French courses for foreign students prior to their arrival in France, meeting with our industrial partners, meeting for and with our alumni, visiting of our campus (it looks like real), presentation of our research production forum for our students' projects, teaching our students how to behave in SL, and conferences. In addition, our students have a dedicated place on our island (in the sky) where they can build and animate their own activities. They also learn how to interact with other avatars, and they plan to organize parties, in both real and Second Life, for the students abroad. They also place information related to their own computing network."

The school's site in SL has a large main building, an amphitheater, a soccer field, and a gymnasium with a rock-climbing wall and work-out room.

In RL, ENST Bretagne is a French engineering school offering master's and doctorate programs in engineering, computer science, and telecommunications. The real life institution has campuses in Brest, Rennes, and Toulouse.



GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, Georgia

SL Location: Cybrary City 225/35/24

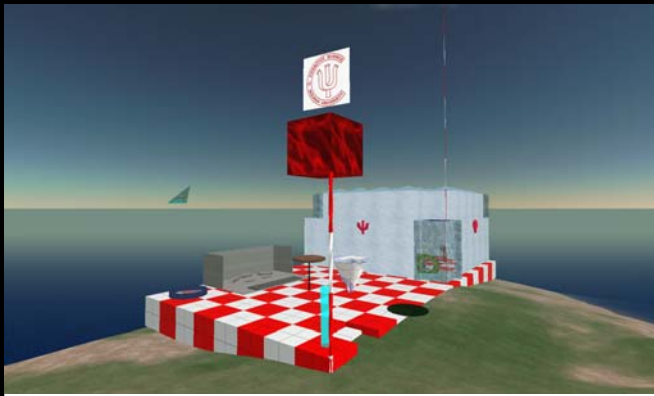
Land Size: 1312 sq. m.

SL-related Group: Georgia Tech Yellow Jackets

SL Contact: unknown

Web site: <http://www.gatech.edu>

Georgia Tech has established a building on Cybrary City with links to Web sites offering information about the school and its programs. This institution has classes in building construction, planning, industrial design, architecture, computing, engineering, physics, and other technical fields. Distributed throughout the two-story building are additional links, many related to engineering, that direct users to the Web site for Georgia Tech Library.



INDIANA UNIVERSITY

Bloomington, Indiana

SL Location: Indiana University 128/128/0

Land Size: One sim

SL-related Group: Indiana University

SL Contact: unknown

Web site: <http://www.indiana.edu>

The Indiana University sim is under development with the beginnings of a cognitive science area and a small beach with a dock and a boat. The real life university has eight campuses throughout Indiana and offers

engineering and technology programs at the Indianapolis and Fort Wayne campuses.



MCMASTER UNIVERSITY, FACULTY OF ENGINEERING

Hamilton, Ontario, Canada

SL Location: McMaster Engineering 25/26/30

Land Size: One sim

SL-related Group: McMaster Engineering

SL Contact: Mohrens Collas (SL), Dr. Martin v. Mohrenschildt, department chair

Web site: <http://www.mcmaster.ca>

E-mail: mohrens@mcmaster.ca

McMaster University is actually represented in SL at more than one location. In June 2007, McMaster began development of an entire island representing the

department of computing and software and level I engineering recruitment. This sim has a main building containing exhibits about the computer and software school and its programs in computer science, software engineering, mechatronics engineering, business informatics, and game and virtual systems design.

Mohrens Collas, department chair for the department of computing and software, said, "The theme of the island is 'Nature and Technology'. It gives a view at Canadian wilderness and technology." He said there are "several scripted displays that simulate real equipment, the CAS motion simulator (a simulation of the real motion simulator housed in the department), a robotic manipulator, and the ITB (Information Technology Building).

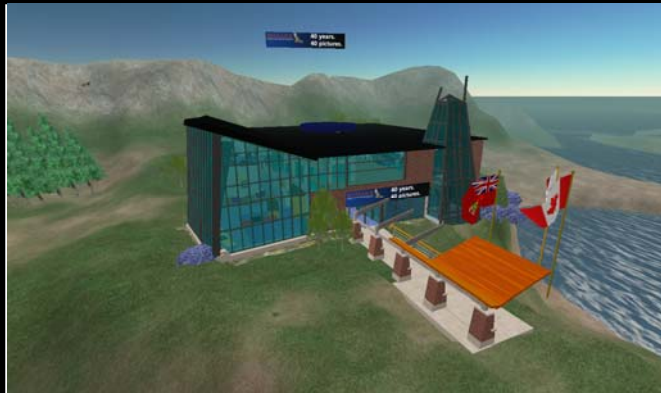
According to Collas, the main purposes for establishing the McMaster Engineering sim are to recruit, educate, and create an identity so students can show their work. "We will teach courses and tutorials on the island in the fall. There are preparations to conduct Human Computer Interaction tutorials on the island too."

The other SL builds for this institution include a library building at Cybrary City (38/187/24) and another engineering-related build at Info Island II (235/224/22)

where there is a café with a demonstration on its roof of the Tower of Hanoi puzzle using SL scripting language. This café will eventually be moved to the main sim.

The university also has a comprehensive offering of programs in other engineering disciplines.





MOHAWK COLLEGE OF APPLIED ARTS & TECHNOLOGY

Hamilton, Ontario, Canada

SL Location: Mohawk College 146/202/31

Land Size: One sim

SL-related Group: Mohawk Faculty, Mohawk Friends

SL Contact: Kinda Goode (SL), Marilyn Gris

Web site: <http://www.mohawk.ironpointv7.net>

E-mail: marilyn.gris@mohawkcollege.ca

Describing the programs available at Mohawk,

Marilyn Gris, manager of student recruitment and online communications, said, "We offer building & construction Sciences; chemical & environmental technology; computer science & information technology; electotechnology; mechanical & industrial technology." As for programs held in SL, Gris said, "No academic areas are as yet represented in SL, but a couple of faculty (one from chemical and one from mechanical) are starting a project for the fall."

The SL build for Mohawk College currently has a photo exhibit of the school's past 40 years as well as photos of current students.



MURRAY STATE COLLEGE

Murray, Kentucky

SL Location: Murray State University 137/123/27

Land Size: One sim

SL-related Group: Murray State University

SL Contact: Su Saintlouis

Web site: <http://www.murraystate.edu>

The Second Life site of Murray State began development of a full sim on June 20, 2007—a formal launch of the build is planned for Fall 2007. So far there is a castle on one corner, a welcome area, and a meeting

area. As for the offerings at the real life college, Saintlouis said, "There is a department of industrial and engineering technology with programs in architectural engineering technology, civil engineering technology, construction engineering technology, electromechanical engineering technology, environmental engineering technology, telecommunications systems management and graphic communications management. There is also a department of physics and engineering."

FIND OUT MORE ABOUT THE NEW MEDIA CONSORTIUM (NMC) CAMPUS IN SECOND LIFE

<http://sl.nmc.org>

The New Media Consortium (NMC) is an international 501(c)3 not-for-profit consortium of nearly 250 learning-focused organizations dedicated to the exploration and use of new media and new technologies.



NORTHERN ILLINOIS UNIVERSITY (NIU)

Dekalb, Illinois

SL Location: Glidden 140/163/27

Land Size: One sim

SL-related Group: none

SL Contact: Ali Andrews

Web site: <http://www.niu.edu>

The NIU build has created a replica of its Glidden Campus on a full sim in SL. According to a notecard available at the welcome area, "Altgeld Hall is the main structure on the Glidden Campus and was origi-

nally built in 1895 by the Architect Charles Eliphalet Brush of Chicago. This 130,000 square foot building was then renovated in 2004 and built in the virtual world in 2006. In order to preserve the immersive quality of the Glidden Campus landscape our virtual classrooms are 600 meters in the sky."

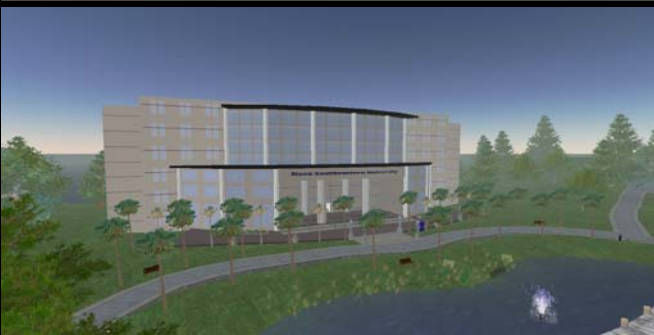
The classrooms in the sky are of a modern style and include an area where students can access assignments for specific classes, dance, and relax at a virtual bar. Another classroom has replicas of real life items labeled with the German names.

CHECK OUT THE INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE) IN SECOND LIFE FOR MORE RESOURCES RELATED TO TEACHING IN SECOND LIFE



ISTE ISLAND 90/78/30

<http://www.iste.org>



NOVA SOUTHEASTERN UNIVERSITY (NSU)

Fort Lauderdale-Davie, Florida

SL Location: Nova Southeastern 114/110/22

Land Size: One sim

SL-related Groups: NIU Time Arts

SL Contact: unknown

Web site: <http://www.nova.edu>

Nova Southeastern has developed their own sim with one main building, a lake, and walkway. The building houses an auditorium and three other areas dedi-

cated to admissions, financial aid, and general information about NSU. Technical offerings at the real life institution include an oceanographic center and a graduate school of computer and information sciences.



OHIO UNIVERSITY

Athens, Ohio

SL Location: Ohio University 20/36/24

Land Size: Seven sims

SL-related Group: Ohio University Visitors

SL Contact: Tanbou Ogg, Chang Tuxing

Web site: <http://www.ohio.edu>

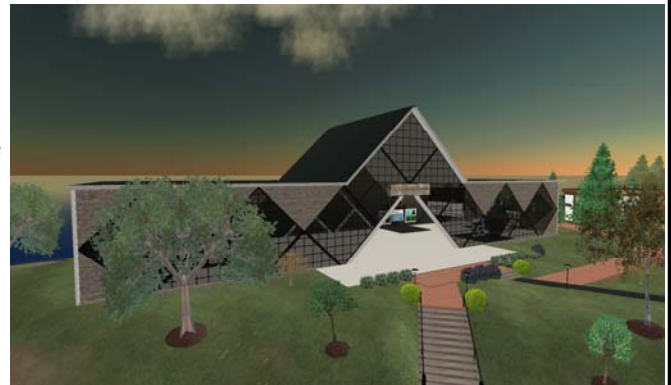
The Second Life site of Ohio University, originally located on one sim in August 2006, has now grown to cover several islands. A notecard distributed at their welcome area details the school's SL build: "Ohio

University's Second Life (SL) campus stands at the forefront of educational virtual worlds. The campus currently includes two developed islands, which serve as a virtual representation of the Ohio University campus, and five undeveloped islands purchased in February 2007 to promote campus expansion. Two Ohio University offices, Ohio University Without Boundaries and University Outreach led by Director Merle Graybill, have played a vital role in the development of the islands which provide a unique space for classes and students to meet and learn. Already, classes in subjects ranging from English to engineering have been held on campus with great success."

The notecard also states, "The islands have not only been a host for formal teaching and learning experiences, but also grant-sponsored activities." The

school is also planning to offer at their SL site educational opportunities for the workforce.

Moving around Ohio University's SL site is almost as daunting as touring a real life campus. Fortunately, there is a HUD available near the welcome area. Using the HUD, visitors can teleport to the Stoker Center to view a display by the Ohio Learning Network describing teaching projects using a virtual environment. While there, visitors can pick up a free University of Cincinnati Bearcat mascot. There is also an online software engineering process game set up in this area. The real life institution has a comprehensive offering of engineering programs.



PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE

Knoxville, Tennessee

SL Location: WindingRiver Campus2 101/135/23

Land Size: Two sims

SL-related Groups: Learning Panthers

SL Contact: unknown

Web site: <http://www.pstcc.edu>

Pellissippi has established itself in SL over a two sim area. There are several brick-styled buildings around a central lake on the main sim. An SL orientation area can be found in a tree house nestled in the branches of the tree standing in the center of the lake.

In real life, the school's engineering department offers instruction in civil, electrical, and mechanical engineering technology, in addition to computer science, computer integrated drafting, and geographic information systems.



SAN DIEGO STATE UNIVERSITY (SDSU)

San Diego, California

SL Location: Meadowbrook 220/83/23

Land Size: 7168 sq. m.

SL-related Group: none

SL Contact: unknown

Web site: <http://www.sdsu.edu>

The SDSU build has a central building and an outdoor area established as a 3-D adaptation of a WebQuest learning environment. The main building is set up with a lounge and a resource area on the first floor.

Upstairs is a conference area and an area with games that can be played in SL. Also, there is a lecture area with seating for 18.

SDSU offers a bachelor's program at their College of Engineering, and a Master of Engineering degree in the aerospace, civil, mechanical, and electrical disciplines at the San Diego campus. There are also doctorate programs in engineering sciences and applied mechanics.



SOUTH CENTRAL COLLEGE (SCC)

Faribault & North Mankato, Minnesota

SL Location: Albulata 12/166/58

Land Size: 512 sq. m.

SL-related Group: SouthCentralCollege

SL Contact: TE Trebuchet

Web site: <http://www.southcentral.edu> & <http://cc1.southcentral.edu/sl/index.html>

E-mail: tom.edwards@southcentral.edu

SSC has established a building on a small parcel in Albulata. The building has places to hang out and

links to the school's Web site which promotes the school's SL campus. South Central College offers real life programs in architectural drafting, civil technology, computer integrated machining, and construction field supervision. The school also offers certificates through online courses.



SPROTT SHAW COMMUNITY COLLEGE

21 Campuses in Canada, 1 in Jordan, and 1 in China

SL Location: Sprott Shaw College 213/59/23

Land Size: Three sims

SL-related Groups: Sprott Shaw, Sprott Shaw College, Sprott Shaw Degree Students, Sprott Shaw Electrical Students

SL Contact: unknown

Web site: <http://www.sprott-shaw.com> & <http://sl.sprott-shaw.com>

Sprott-Shaw is advertised on its SL-related Web site as "Second Life's first private degree college." The school's SL build is extensive and can be toured with a HUD which is available at the visitor's center near the main teleport point. The SL site has a library, an electrical trade building, a sandbox, a building with an auditorium and three classrooms serving 30 students, and four buildings with 16 dorm rooms for students. In addition to numerous general programs in business and health sciences, Sprott-Shaw Community College offers a residential construction framing technician program and electrical trade programs.



STANFORD UNIVERSITY

Stanford, California

SL Location: Cybrary City 206/114/24

Land Size: 1222 sq. m.

SL-related Group: Stanford Club of SL, Stanford Engineering Library, Stanford University Libraries

SL Contact: Welkin Sands

Web site: <http://www.stanford.edu>

According to Welkin Sands, "Both Stanford Engineering and Stanford University have plots on the Information Archipelago. We are in the process of buying

an island for Stanford—the idea is to foster collaboration. Right now we have two different buildings that represent the engineering library; however, when we move to our new island, we are not going to maintain separate buildings. Instead we will re-imagine the concept of the library, and our focus will be on building collections and discovery tools." The current build has links to engineering resources and a meeting space for engineers and engineering librarians. "There is also information about the real life move of the school's engineering library to a largely digital library called the SEQ2 Library," said Sands.

The Engineering College at Stanford University offers programs in aeronautics and astronautics, bioengineering, chemical, civil and environmental, computer science, electrical, management science, materials science, and mechanical engineering. There is also an architectural design program integrating engineering and architecture. In addition there are programs in energy resources engineering and computational and mathematical engineering.

CAMPUS: SECOND LIFE

Linden Labs offers a **Campus: Second Life** program for those interested in finding out more about educating in the Second Life environment. If approved for the program, you will gain access to one acre of land in SL for free for the duration of your class for one semester. Linden Labs is accepting applications for the program until August 1, 2007. You can find out more about the program at:

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



TEXAS STATE UNIVERSITY

San Marcos, Texas

SL Location: BobCatVillage 134/66/26

Land Size: One sim

SL-related Group: none

SL Contact: unknown

Web site: <http://www.txstate.edu>

Those visiting the Texas State sim will find a nicely landscaped area with many gathering areas, an auditorium, and an area with games.

In real life, Texas State offers programs in computer science, aerospace studies, and engineering and technology.



INGEMEDIA INSTITUTE of the UNIVERSITE DU SUD TOULON-VAR

SL Location: Putiki Fold 107/28/56

Land Size: 1536 sq. m.

SL-related Group: University of Toulon-Ingemedia-13M

SL Contact: Philippe Bonfils

Web site: <http://www.univ-tln.fr>

E-mail: bonfils@univ-tln.fr

The Universite du Sud Toulon site in SL, established in Feb. 2007, was built to represent the school's In-

gemedia Institute. Students of professional master programs can find information about online management and communication courses and can participate in e-learning experiments conducted in SL. According to Philippe Bonfils, his university is "the first French public university in SL. We organize project meetings and online courses of management in our SL building."

In addition to professional management programs, the real life university also has an engineering college with programs in telecommunications, materials, and several other engineering disciplines.



UNIVERSITY OF HERTFORDSHIRE

Hatfield, Hertfordshire, UK

SL Location: University of Hertfordshire 118/63/25

Land Size: One sim

SL-related Group: Universtiy of Hertfordshire, University of Hertfordshire Staff

SL Contact: Zante Zapedzki

Web site: <http://www.perseus.herts.ac.uk>

The University of Hertfordshire has developed its sim with a large learning resource center modeled after a real life structure, a main square, and supporting

buildings also modeled after real life campus buildings. The resource center in SL has information about the colleges programs and areas for viewing videos.

In real life, the University of Hertfordshire offers programs in computer science and in the following engineering disciplines: aerospace, automotive, electronic, and mechanical. The university also offers the opportunity to obtain a degree in computer science by studying online.



UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

Oshawa, Ontario, Canada

SL Location: UOIT 167/166/24

Land Size: One sim

SL-related Group: none

SL Contact: unknown

Web site: <http://www.uoit.ca>

UOIT is currently in the process of developing their island. The Faculty of Engineering at UOIT offers programs in automotive, electrical, mechanical, manufacturing, and software engineering.



UNIVERSITY OF SOUTHERN DENMARK (SDU)

Odense, Denmark

SL Location: Bifrost 120/187/25

Land Size: One sim

SL-related Group: University of Southern Denmark

SL Contact: Hans Kruse Christiansen (RL)

Web site: <http://www.sdu.dk>

The SL build for SDU was created in Feb. 2007 to represent the entire institution. Hans Kruse Christiansen, IT-chef, said, "We are developing e-learning courses. We launched an introduction for our business students

in August, and we offer open sessions about art and other themes such as e-learn, i cell-processes, robotics, and library activities." More information about their SL build can be found at:

http://www.sdu.dk/Om_SDU/Faellesomraadet/IT-service/SecondLife.aspx.

SDU offers classes at four campuses located in Denmark and at one located in Flensburg, Germany. The Faculty of Engineering at SDU offers 11 bachelor's programs, 7 master's, and one master's in IT product design.



UNIVERSITY OF TENNESSEE—CHATTANOOGA (UTC)

Chattanooga, Tennessee

SL Location: Campus North 247/174/35

Land Size: 4096 sq. m.

SL-related Groups: Team UTC

SL Contact: unknown

Web site: <http://www.utc.edu>

The UTC build consists of a landing area and a tall building with meeting space.

The College of Engineering and Computer Science at the real life Chattanooga campus offers classes in computer-related disciplines and in the following engineering fields: electrical, mechanical, chemical, environmental, civil, industrial, and technology and management.

UK EDUCATORS

CHECK OUT EDUCATION UK ISLAND!!

Education UK is an island about education focused on the United Kingdom educational community. The island has been developed to serve as a learning environment, a play and practice area for educators, and as a collaborative space for sharing experiences in learning and teaching in Second Life.

The Education UK Island also offers a land grant program giving educational institutions an opportunity to explore using Second Life as an educational tool. Educational organizations can apply for free land grants for one academic year, and three categories of grants are offered: educational land grants, community land grants, and office space.

To find out more, visit Education UK Island in Second Life, access their Web site at <http://www.sleducationuk.net>, or IM Susan Williams, program manager, in-world.

**VASSAR COLLEGE****Poughkeepsie, New York****SL Location:** Vassar 128/128/0**Land Size:** One sim**SL-related Group:** none**SL Contact:** Bret Rydell**Web site:** <http://www.vassar.edu>

The Vassar College sim has a wide offering of activities and structures to explore, and the entire sim can be toured with the use of an automated pod. Those visiting will find a sandbox (only available for students, faculty, staff, ad-

ministrators, alumni, and invited guests), an amphitheater, seminar swamp, castle Vassar, course areas, media gardens, and an incredible re-creation of the Sistine Chapel.

The castle has three levels and a roof-top garden. There are areas for meetings, a library, lounge, and two virtual rooms offering a 360-degree virtual experience. In one area there is a live stream from the Vassar quad. Visitors can also play several games that are found on the second floor.

A sign on the island indicates that the university is "using this island to explore the ways in which Second Life can support and enhance on-campus learning as well as foster communication and collaboration beyond our physical borders."

In real life, Vassar offers programs in computer science and physics and astronomy.

**WOODBURY UNIVERSITY****Burbank, California****SL Location:** Campus North 151/19/24**Land Size:** 4096 sq. m.**SL-related Group:** Woodbury University**SL Contact:** Tizzers Foxchase (SL) & Edward Clift, chair of the Media, Culture, and Design school**Web site:** <http://www.woodbury.edu>

Woodbury currently is represented in Second Life at a temporary site. There are plans to establish a permanent site in the near future.

Woodbury has two campuses in California in real life—one in Burbank and one in San Diego. Architecture programs are offered at each campus.

GETTING SLEDUCATED

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