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# USING A VIRTUAL WORLD INTERFACE IN BUSINESS EDUCATION

**Summary.** Contemporary business students are adept in digital media and social networking technologies. Indeed, they are digital natives who will be doing business through new collaborative media in the near future. This article discusses some of the approaches and issues associated with using virtual world interfaces in business education.

**Keywords:** Social Media, Collaboration, Business Education, Virtual Worlds, Second Life

# WYKORZYSTANIE ŚWIATA WIRTUALNEGO W EDUKACJI BIZNESOWEJ

**Streszczenie.** Współcześni studenci biznesu są mistrzami w świecie mediów cyfrowych i społecznych technologiach sieciowych. Są oni „cyfrowymi tubylcami", którzy będą w niedalekiej przyszłości prowadzić interesy przez nowe media współpracy. Niniejszy artykuł omawia kilka podejść i kwestii, związanych z wykorzystaniem interfejsu świata wirtualnego w edukacji biznesowej.

**Słowa kluczowe:** media społeczne, współpraca, edukacja biznesowa, Second Life

# 1. Introduction

Current students are digital natives,[1] who grew up with online virtual worlds and simulations, such as *Everquest*. That is, they are already comfortable interacting through three-dimensional virtual reality interfaces. Access and participation in such virtual worlds is largely free. This article will provide an overview of issues that business instructors in higher education should be cognizant of when using virtual worlds in support of their courses.

# 2. Virtual Worlds: The Example of Second Life

The University of Texas announced on September 15, 2009 that it was creating an archipelago of forty-five islands in the Second Life virtual world to provide cost effective, ecologically sustainable, very collaborative, and exciting learning platform, for use by its 15 campuses. Second Life was seen as a way to help students and faculty to cost effectively collaborate with their peers in far-flung places.[2]

The most widely used virtual world among educators is Second Life.[3] It includes advanced visual, audio, and kinesthetic elements in its interface and allows the use of the Google translation utility to foster international collaborations. Learners are represented by avatars that they create using menu driven utilities. These avatars are characters that may look something like they do, or may look like a wildly imagined creature.[4] Several Polish cities have replicas of their old towns with cafes and other attractions in Second Life. What is important is that the Second Life interface is an attractive one for current students,[5] who want to have open-ended media that is collaborative, unpredictable, international, and interactive in stimulating ways.

In Second Life, instructors and students create avatars, which are sort of like puppets that may or may not reflect their actual visages. It is quite possible for avatars to change appearances, even drastically, during a conversation  So at one point a learner might appear to be a peasant girl, while the next she might appear as Smok the Wawel Dragon.

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[1] Tapscott D.: Grown up digital: How the net generation is changing your world. McGraw-Hill, New York 2009; Palfrey J.G., Gasser U.: Born digital: Understanding the first generation of digital natives. Basic Books, New York 2008.

[2] Wagner M.: University Of Texas Moving Into Second Life. InformationWeek. Government Blogs, 2009 September 21. Accessed October 8, 2009 from www.informationweek.com/blog/main/archives/2009/09/ university_of_t.html.

[3] Warburton S.: Second Life in higher education: Assessing the potential for and the barriers to deploying virtual worlds in learning and teaching. British Journal of Educational Technology 2009, no 40(3), p. 414-426.

[4] Ibidem.

[5] Jarmon L., Traphagan T., Mayrath M.: Understanding project-based learning in Second Life with a pedagogy, training, and assessment trio. Educational Media International 2008, no 45(3), p. 157-176.

Many educational institutions and instructors have their own places in Second Life. This instructor has his own educational island named Emgeetee in Second Life. This is helpful in providing a private place for his students and visitors to meet. However, there are many beautiful and wonderful gardens and public areas where instructors might meet with students. That is, it is possible to conduct educational activities in Second Life without spending any money to lease property etc.

In Second Life learners can have team meetings, share documents, view PowerPoints and videos, or have natural voice or text chat discussions. Learners can visit existing businesses, in areas where Polish is the lingua franca, for example, and ask to speak to the owner to inquire about their business model. In interviews students might inquire about marketing, customer relations, new product development, etc. Teams of students might be assigned to create businesses in a virtual world. A forthcoming textbook *Management through Collaboration: Teaming in a Networked World* [6] will have many student assignments to be completed in Second Life. In the longer term the development of a resort where learners from many nations will recruit travelers to participate in parties and water sports.

One of the benefits of higher education in Second Life is that learners can be motivated by the opportunity to personally express their persona through the creation of an avatar and the selection of clothing etc. Some instructors create competitions for learners associated with the content of the course. For example, one accounting professor presents students with different types of accounting items and requires them to jump up if it is an asset or spin around if one is a liability.[7] Some instructors have students work in teams creating objects and buildings in Second Life from basic building blocks called prims. However, in the opinion of this author the time spent can be inordinate given the value of the skill. Also, the benefits to learners seem elusive.

**Intercultural Interactions**

Second Life has many areas where people from nations around the world congregate and speak their own languages. For example, there are virtual Japanese and Korean areas. This author has visited a virtual Poznań, Poland, where Polish students were gathering in cafes for pleasant banter. It is possible to converse in natural language in Second Life, though sometimes interlingual exchanges are best in chat. It is possible for instructors to arrange group trips for classes to foreign sites in Second Life together to experience and discuss them together.

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[6] Wankel C., and global team: Management through Collaboration: Teaming in a Networked World. Routledge, New York 2010.

[7] Oishi L.: Surfing Second Life: What does Second Life have to do with real-life learning? Tech & Learning, 2007, no 27(11), p. 54.

One assignment might be for students to create several different avatars with a diversity of core characteristics such as race, ethnicity, gender, disabled status, or age. They can be directed to write reports on how the reaction of others differed for these various avatars.[8]

**Launching learners into a virtual world**

It is important to provide significant support for learners to help them with any technical issues that might derail them and to have them integrate with the rest of the learning community in Second Life. This author launches teams of learners on projects in Second Life to assure that they have peer support. This has worked out rather well and is providing valuable virtual team leadership, mentoring, and peer facilitation experience. Other instructors have learners take on individual projects in Second Life and report their findings back to their classes. This has the advantage of curtailing free-riders. Students can be requested to blog their Second Life experiences replete with many snapshots which are readily taken in Second Life. Also, their reflections on their work in the virtual world and their suggestions for improving the assignments for future classes ought to be solicited.

Sanchez,[9] of the University of Texas, designs activities to orient his students to operating in Second Life centered on creativity and play. The two venues he accomplishes this in are a carnival and a beach resort. He presents the newcomers with a wide range of involving games and activities through which students can win virtual prizes. One purpose is to avoid being overly directive but rather have each student lead themselves. It has been reported that students using Second Life are more expansive and willing to experiment in their education.[10]

A popular way to transition students into virtual world-based learning is by providing them with a virtual university campus where they can relax in a seemingly familiar venue.[11] A number of universities have developed classrooms and auditoriums in Second Life for traditional style class sessions; for example, St. John's University and the University of Cincinnati.[12]

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[8] MacLeod D.: Second Life lessons: For some, the virtual world's learning opportunities start with the basics. Guardian. 2008 November 11, Accessed October 8, 2009 from www.guardian.co.uk/education/2008/nov/11/highereducation-secondlife.

[9] Sanchez J.: Pedagogical applications of Second Life. Library Technology Reports 2009, no 45(2), p. 21-28.

[10] Frauenheim E.: IBM Learning Programs Get A "Second Life". Workforce Management 2006, no 85(23), p. 6.

[11] Haycock K., Kemp J.W.: Immersive learning environments in parallel universes: Learning through Second Life. School Libraries Worldwide 2008, no 14(2), p. 89-97.

[12] Haines I.: Second Life is powerful teaching tool. News Record, University of Cincinnati, 2007 October 31, Accessed October 8, 2009 from www.newsrecord.org/2.7230/second-life-is-powerful-teaching-tool-1.764307#4.

**Course Support and Librarian Interface**

One of the services that in some ways improved starkly in Second Life is that of reference libraries. That is because most universities have moved most of their material onto the web already, such as journal subscriptions and databases. So, the situation is that students are accessing these from their homes or dorms while the reference librarian is seated in the dusty library. Having reference librarians do assistance and training in a virtual world interface for students is very useful. St. John's University in New York has an eBrarian, Charles Livermore, who assists learners in any aspect of getting going in Second Life and is available in face-to-face traditional mode in the university library, via telephone, via Skype, via email, and at his Second Life office on Emgeetee Island. He holds workshops there on such topics as using the Baldrige Award criteria as an analytic tool for assessing company strategic options. He augments his presentations in Second Life with a variety of media including PowerPoint slides. In addition to office hours in Second Life, he has made himself available for meetings at a wide variety of times, thus aligning with the schedules of students living in Europe while taking online courses offered by professors living in New York. One benefit for St. John's students has been that those located in semester abroad situations have been able to have personal one-on-one reference librarian support from one of the university's most knowledgeable and respected reference librarians.

There are email-based discussion lists where communities of those involved in teaching in virtual words share information and support each other. A leading one is called the Second Life Educators Discussion, or SLED.[13] This group has more than 5,000 participants. Additionally SLED and other such associations have groups and pages in other social media. For example, SLED has an active LinkedIn presence.

**Examples of higher education in Second Life**

Sometimes helpfully and sometimes not, education in Second Life often mimics education in real life. Students in Second Life can be required to go to a virtual classroom and hear a lecture, perhaps with PowerPoint slide, and raise their hands and be called upon and comment on the comments of other students. This author sees the opportunity for readily combining projects and meetings with instructors and learners at far-flung universities to be a more tantalizing option. Some activities in real life have to be radically rethought and redesigned, such as service learning in Second Life. Certainly, just as some learners do much more than is required in brick and mortar classrooms, some learners in Second Life perform incredibly beyond what is required or expected. Similarly, students can be absent unprepared

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[13] Second Life Educators: The SLED List. Accessed October 8, 2009. https://lists.secondlife.com/cgi-bin/mailman/ listinfo/educators.

and unmotivated in either situation. One activity that some instructors in Second Life undertake is to have learners visit Second Life sites related to the topic of their courses. So, for example, some information science instructors take their learners on tours of Second Life library sites.[14] Another type of student project in Second Life is digital storytelling where students create an experience or display which others can walk through and be told their stories. Such stories might be about their careers or about their grappling with a particular project in the course. Some instructors might require students to provide them with progress updates on the development of a story display or experience as they proceed through a series of steps. Some instructors might require that learners provide an outline of the story or experience they have been working on to be approved before they create it.  Students might be assigned to discuss with companies that have representations of their products in Second Life about how such virtual showrooms translate into sales in the real world. As is the case in real world courses, instructors should solicit ideas on improving the course and its assignments as the course proceeds.[15]

The United States Air Force (USAF) has developed an important simulation of its operations through its MyBase set of regents in the Second Life virtual world. These commenced in December, 2008. Visitors to the site can begin their tour with a set of immersive exhibits including the history of the United States Air Force. Also, those interested in learning more about opportunities and services provided by the Air Force can find much of it there. Many of the exhibits are activated by having a visiting avatar click on them. One of the experiences enabled at MyBase is flying a replica of a P-51 Mustang, the aircraft used by the Tuskegee airmen in WWII. Another activity is to traverse a challenge course. Additionally a shooting range is available. Entertainment for the airmen includes a theater showing major studio films. There is also a club where airmen can dance to the US Air Force band. Prospective recruits can visit replicas of US military living quarters, dining halls, etc. The Air Force realizes that incoming personnel have social media skills and is intent on utilizing them.  The comfort levels of the current generation with technology surpasses that of past cohorts of new airmen, enabling the Air Force to assume much more general and higher comfort levels with new technology than was possible in the past. It is simple for anyone to visit MyBase in Second Life.  You you're your avatar enter Second Life and then type MyBase into the search box.[16] The Air Force is developing certification and degree programs to be earned at MyBase.  In the future the Air Force and other military units will be creating

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[14] Sanchez J.: Barriers to student learning in Second Life. Library Technology Reports 2009, no 45(2), p. 29-34.
[15] Ibidem.
[16] O'Hara C.: Virtual learning gets second wind from Second Life: 3-D worlds and other tools provide new ways to accomplish old goals. Federal Computer Week 2009, no 26(5). Accessed on October 8, 2009, http://fcw.com/ articles/2009/05/04/feature-virtual-learning.aspx.

secure sites for operational training. For example, prior to deployment to an airbase in Afghanistan, airmen might use MyBase to train at realistic replicas of actual US bases there. Airmen might engage in simulated activities of a wide range. So that when they arrive in Afghanistan things are more familiar than they might have been in the past for new arrivals. Similarly, the US Navy has a naval undersea warfare center in Second Life used for operational testing, training, collaboration, product development, and design work.[17]

**Games, Role Plays, Simulations, and Virtual Internships**

University and corporate simulations, and indeed computer based simulations, have a long history. However, three-dimensional immersive simulations are particularly useful where becoming comfortable with a contextualized crisis situation is important. For example, a simulated meltdown at a nuclear power station can go beyond reacting to lights and gauges on a panel to reacting to the emotions and interpersonal dynamics of such a crisis situation. In 2009, an emergency landing of a commercial airliner in New York City was necessitated by a flock of geese disabling both engines of the plane. The pilot had to decide whether to attempt to land at a small private airport, return to the large international airport, or to land in one of the many waterways in that harbor city. The pilot elected to bring the plane down in the Hudson River having, as you can imagine, no experience of such a landing. Also, passengers had to be herded onto the wings of the craft and dispatched into life rafts and a welter of small boats, ferries, and larger crafts that happened to be nearby in the metropolis's harbor. Rather than on the job learning, it might have been immensely helpful for the pilot to have had a background with a simulated experience addressing issues such as how long would it take a ferry in dock at the side of the river to reach the middle to assist the sinking aircraft. Certainly such a simulation might be administered to the entire crew including flight attendants. Also, air traffic controllers might be included, as might airline management at their headquarters and in the region. The actual incident went on to involve handling the cold and bedraggled survivors as they arrived on the opposite shores, tracking their whereabouts as some went to hospitals to be checked, others to hotels, and others back to the airport to resume their flights. In this actual incident of Flight 1549, the airline went on to tow the plane to a pier, load it on a barge, haul it up to be transported to a salvage center, and extracted 36,000 passenger belongings to be cleaned and returned.[18] Certainly, a virtual world simulation of all of this to sensitize airline personnel and management to the kinds of decisions and actions that such a unique event might bring about could be useful. Other

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[17] Ibidem.

[18] James E.H., Wooten L.P.: Leading Teams in Crisis Situations: From Chaos to Extraordinary Performance, special issue "Building High Performance Teams." Effective Executive Magazine, April 2009. Accessed October 25, 2009 from http://files.e2ma.net/1405/assets/docs/leading_teams_erika_hayes_james.pdf.

obvious virtual world simulations might be for situations with hazardous materials or other expensive or dangerous aspects. Virtual workplaces can be created where students or trainees can be oriented to the values and norms of a particular company. This might provide a modicum of legal protection if it clearly articulated rules which related to appropriate behavior and the consequences of inappropriate behavior. Perhaps, they might be provided with an overview of the activities of a financial service firm. Or, they may be shown the many tasks completed in running a supermarket in Gdańsk. Another area that might be useful for simulation would be student internships where they might be able to try out working in a much greater number and variety of firms.

IBM and other companies have orientations for new hires in virtual worlds.[19] Similarly, foreign student offices at universities might prepare students for experiences abroad with some simulated situations based on reports of prior years' participants. Course instructors might utilize virtual world meetings a few weeks before the course is scheduled to begin to answer questions and provide an overview of the course to enable students who might have different expectations to drop the course and for others to start their preparations and course materials acquisitions earlier.

Beyond academic activities Second Life can be the site of extracurricular ones. For example, St. John's University in New York hosted the first virtual world debate with the University of Vermont. The moderator was located in Slovenia.

### Interviewing Second Life Business People

Millions of dollars of business are completed in Second Life. This writer has developed exercises in the Second Life virtual world for students in management courses to study business models of entrepreneurs there. For example, a student can go into a clothing store and ask to speak to the owner(s) and interview them about their revenue model, marketing approaches, recruitment compensation, production, outsourcing, and other business activities. Then they can be assigned the task of developing their own virtual world business plans.

### Organizational Culture

Second Life has its own sets of norms and etiquette. However, online interaction has its own argot and ways of proceeding. So for example, since one mode of interaction in Second Life is typed chat, terms such as "lol" appear profusely. What is important is that students realize that university classes and activities conducted in whatever medium must maintain the decorum of the university. Certainly, actions with overtly sexual dimensions or language laced with profanity are not acceptable for many reasons. Also, there are the special culture of

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[19] Frauenheim E.: op.cit.

a business school and the micro-cultures of project teams for instructors to attend to alert students of required comportment. Also how the bouillabaisse of all of these cultural elements comes together is something to be checked by the instructor. Every problem is an opportunity. Students might be assigned to write on all of these various cultures and their recommendations for tweaking them. Academic institutions have expectations for proper attire for students. These vary across different types of events.[20] So university sponsored virtual world events should be monitored for the expected conformance of clothing to the standards. In a virtual world avatars might be representations of strange creatures. Some companies might not appreciate the lack of control attendant with people avatars not looking like them. However, I find it is a very positive element that fosters creativity and involvement in class sessions.

## Community Building

Virtual worlds provide, to a large extent, masks for participant. That is, everyone can be beautiful, anyone can have an ideal physique, and everyone can have great clothing. Also, issues of race, religion, gender, etc. can dissipate when groups include purple people.  In Second Life athletes and geeks can appear the same. That is, social boundaries can be dissolved in helpful ways. This in turn might lower social anxiety.[21]

## Meetings

Meetings in Second Life can be accomplished even when team members are at different campuses or even different countries. This lends it to distance learning applications.

## Service Learning

An exciting application of Second Life is virtual service learning. So for example, a university class might develop a facility for students in a poor community to utilize. Central Michigan University students teamed up with the United Nations Organization on a joint online education project in which they were assigned the task of brainstorming ways a not-for-profit organization could raise real money in a virtual world.[22] The American Cancer Society raised more than $115,000 in 2007 through a footrace for Second Life avatars.  At the

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[20] Semuels A.: Real Work Grows in Virtual World; Corporate America is learning to embrace Second Life. Seattle Times 2008, June 2, Accessed October 8, 2009 from http://seattletimes.nwsource.com/html/businesstechnology/ 2004451820_virtualbiz02.html.

[21] Jarmon L., Traphagan T., Mayrath M.: Understanding project-based learning in Second Life with a pedagogy, training, and assessment trio. Educational Media International 2008, no 45(3), p. 157-176.

[22] Hansen M.: UNO students learn about communication by using "Second Life". World-Herald, Omaha, 2008 March 12, Accessed October 8, 2009 from www.acidcre.biz/bbs/ bbs/board.php?bo_table=slnews&wr_id=100 &sfl=&stx=&sst=wr_hit&sod=desc&sop=and&page=5.

University of Texas, Joe Sanchez had a student team create a three-dimensional virtual world environment where the usefulness of mosquito nets was provided as an immersive experience of malaria prevention in Sub-Saharan Africa. The students worked with a not-for-profit called Nothing but Nets.[23]

**Downsides**

Since it is possible for people to encounter inappropriate things in Second Life it is prudent for instructors to have warnings about this and offer alternative assignments for students who might become upset about that. This author's perspective is that real life has inappropriate behavior too and the difference is not so gaping between education places in Second Life and educational places in the real world. It is wise to have students warned in the information on the course outline about assignments in Second Life that they might encounter something inappropriate.[24] Alternatively, university islands and other places in Second Life can be restricted to approved university members thus excluding the possibility of outsiders coming and running amok. In contrast to dangerous situations in a real context at a university anything unpleasant might be sidestepped by simply exiting the program or moving to a different venue in the virtual world.

It might be recommended that students maintain one staid virtual world persona for academic and professional activities and a "Mr. Hyde" alter ego avatar for other less decorous doings.[25]

One downside of Second Life is the seeming large amount of time that students must spend to get acclimated in it.[26] An interesting forecast is that by the University of Leicester that students will find learning in Second Life as normal as any face-to-face classes by 2013.[27] Reactions of students to the value of Second Life classes and activities to a certain extent are a function of the quality of the learning exercises developed for them by the instructor. This corresponds to learning activities in the real world.[28]

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[23] Sanchez J.: Barriers …, op.cit.
[24] Berger M.W.: Manon of Second Life: Teaching in the virtual world. Technology and Culture 2008, no 49(2), p. 430-441.
[25] Semuels A.: op.cit.
[26] Sanchez J.: Barriers …, op.cit.
[27] Western Daily Press: Students learn in Second Life. Western Daily Press 2008, September 22. Accessed October 8, 2009 from http://www.accessmylibrary.com/ coms2/summary_0286-35262828_ITM.
[28] Sanchez J.: Pedagogical …, op.cit.

## 3. Conclusion

Students currently entering business education are digital natives[29] with extensive experience in using virtual worlds through gaming etc. New platforms will lessen the divide between physical and virtual reality.

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[29] Tapscott D.: op.cit.; Palfrey J.G., Gasser U.: op.cit.

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