

Using Second Life to Teach Operations Management

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Presentation Summary

Virtual worlds such as Second Life, Utopia Universe, Active Worlds, and THERE.com are the next frontier in communication, social networking, electronic commerce and education. Developed by their creators as multiplayer online role playing games (MMORPG), these 3D virtual worlds have grown exponentially, creating many opportunities and challenges for educators, businesses, social scientists, policy makers, and the legal profession. Educational institutions from Harvard and MIT to for-profit entities have a presence in some virtual world, many of them in the Linden Labs-developed Second Life. The convergence of almost every media into one platform has been primarily responsible for this phenomenon. Businesses use Second Life for collaborative activities such as virtual team meetings, employee training, customer support and sales activities. Educational institutions use Second Life to extend their resident course offerings into distance education, student course registration activities, and online library resources. The Gartner group estimates that by 2010, 80% of internet users will be engaged in some form of virtual world technology. Given this prediction, it behooves educators to prepare students for this “brave new world”.

Second Life, launched in 2003 by Linden Labs (<http://www.lindenlabs.com>) of San Francisco, California, is an online, virtual 3D multi-user environment that functions as a virtual world. It is an immersive social interaction environment. It is not a game in that the actions of its residents are not predetermined by a set of rules. All of the content of Second Life is created by its residents. There are approximately 12.2 million residents of Second Life, who build community, create content and own and operate businesses. Social interaction is one of the primary reasons why people create avatars (a real person’s virtual persona). Research suggests that avatars are extensions of their real counterparts and that people tend to treat their avatars as if they are in real social space. However, content creation is the fabric of Second Life. Everything that exists is there because a resident or a group of residents created it. Because residents own everything they create, they can market and sell those

creations to other residents, creating a thriving economy and a rich environment within which instructors can teach business concepts and skills experientially. Second Life allows professors to provide students with an immersive learning environment hitherto not available in distance education. Educators can develop learning activities that replicate real-world experiences that were previously only available via face-to-face interaction. Students can experience simulations of real life activities from operating a business to building a replica of a university's campus. Students can, using the Second Life scripting and building tools, create their own virtual businesses and communities.

This presentation will describe the use of Second Life to enhance the speaker's delivery of the core MBA Operations Management course as part of Penn State's Pilot Project in Second Life. The Second Life assignment is an individual project in which students research a Second Life business type (retail, real estate, event planning, etc.) and report on their findings. The goals of the project were: 1) to experience a virtual business environment; 2) to learn about virtual businesses and compare their operations to real world business operations of the same type; and 3) to gain exposure to a new web technology. Assignment deliverables were: 1) a paper that compares the virtual business with a real world business and links the virtual operation to one or more operations management decision areas; and 2) a short presentation of their findings. The presentations were made inside of Second Life. Student work was augmented with in-world office hours, guest speakers and technical assistance provided by the instructor and the Penn State technical staff. At the end of each term, a survey was administered to each student to determine whether the assignment helped them to meet course objectives, to get feedback on the students' experiences in Second Life, and to get their opinions about whether Second Life has a place in the MBA curriculum. Preliminary results indicate that although some students were not sure within which course Second Life should be included, the consensus was that virtual worlds are the wave of the future and should be included in the curriculum. The results of the survey will also be included in this presentation. A brief list of references follows.

References

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Brief Biography

Peggy D. Lee is Assistant Professor of Management at the Pennsylvania State University – Great Valley where she teaches Operations Management and Supply Chain Management. Dr. Lee received her Ph.D. in Logistics, Operations and Materials Management from The George Washington University. Her research interests are in supply chain integration, the application of social network theory and social capital to the buyer-supplier relationship, and logistics practices of small firms. Her industry experience includes almost twenty years in telecommunications and telephony, managing multi-million dollar network infrastructure projects. Dr. Lee's work appears in Supply Chain Forum (an international peer reviewed journal published by Bordeaux Business School and the University of Lausanne), the Journal of Business and Industrial Marketing, the Journal of Applied Business Research, the Journal of Health Care Management, the International Journal of Information, Operations and Management Education, Health Care Manager, and Group and Organization Management (forthcoming). She has presented papers at the Decision Sciences Institute, the Northeast Decision Sciences Institute, the Academy of Management, and Services Operations Logistics & Informatics conferences. Her paper entitled, "Measuring Supply Chain Integration: A Social Network Approach" is one of only three articles that use social network analysis in the supply chain management discipline. Dr. Lee is one of a small group of educators using three-dimensional virtual world technologies (i.e., Second Life) in graduate management education.