

5-2009

## Building Virtual Iowa in Second Life: A Case Study

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### Recommended Citation

Power, Daniel; Wurtz, Susan; Cyphert, Dale; and Duclos, Leslie, "Building Virtual Iowa in Second Life: A Case Study" (2009).  
*MWAIS 2009 Proceedings*. 18.

<http://aisel.aisnet.org/mwais2009/18>

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# Building Virtual Iowa in Second Life: A Case Study

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## ABSTRACT

Linden Research's Second Life is a three dimensional world created by its residents. In this world is an island called Iowa that was envisioned, built, developed and is operated by Iowans, both faculty and citizens from other walks of life. This case study discusses the design and development process, the current content of the island called Iowa and operational issues. Virtual Iowa is a work in progress like many web pages were in the early days of the World Wide Web. The design process was driven by a vision and by funding realities, the building of the 3D space was largely accomplished by volunteers and people compensated with land to use for shopping rentals, or entertainment venues. The purpose of the case is to document the process used, share lessons learned and stimulate more systematic research on virtual building teams and their organization, motivation and management.

## Keywords

Virtual Worlds, Second Life, Iowa, Design, Development.

## INTRODUCTION

On June 23, 2003, Linden Lab launched a virtual world called Second Life. According to the website (<http://secondlife.com/>), "Second Life is a free 3D virtual world imagined and created by its Residents. To get started, you will need to download the Second Life viewer." The term "metaverse," from Neal Stephenson's 1992 novel *Snow Crash*, is widely used to describe the vision behind current work on fully immersive 3D virtual spaces like Linden Lab's Second Life or There.com. People interact as avatars, both socially and economically and sometimes with software agents, in a cyber space that uses the metaphor of the real world, but without its physical limitations.

The initial conceptualization was sparked by an informal conversation early in the fall of 2007. On Friday, February 29, 2008, sales order #1312 was finally approved after providing documentation of the nonprofit status of Iowa Metaverse, Inc. The nonprofit status reduced the costs by 50% for operations costs paid to Linden Research.

On March 6, 2008 at 8:52 pm, Rowan Linden sent an email "Your new island has been delivered! The map will take a few hours to find your island, and for the first few days it will show there as plain gray. ... Your island, like all new islands, is on a class 5 server."

The initial purchase price for the island Iowa was USD \$837.50 and the first 6 month maintenance fee was USD \$885.00. Funding from the University of Northern Iowa College of Business paid for the direct costs and supported the development. Administrative and funding issues led to an agreement that Iowa Metaverse would own and operate Iowa. A small informal team envisioned the Iowa island strategic plan. Many people were needed and are needed to make the vision work, and sustainable financial support is crucial to the success of the project.

## IOWA METAVERSE AND VIRTUAL IOWA

The mission and purposes of Iowa Metaverse, Inc. are educational. The specific mission is to develop and operate regions, islands and servers in and for virtual worlds, what has been called the metaverse. Iowa Metaverse attempts 1) to educate and inform people with regard to economic and educational opportunities in the State of Iowa, 2) to living in and relocating to the State of Iowa and 3) to opportunities for visiting and tourism in the State of Iowa. When appropriate, Iowa Metaverse, Inc.

will help other States and regions requiring aid in such projects. Currently, Iowa Metaverse, Inc. operates only in Second Life (SecondLife.com).

The 16 acres called Iowa in Second Life has a variety of attractions and features. The overall theme is green prairie, open spaces, entrepreneurship, virtual education, and high technology. Attractions include The University of Northern Iowa College of Business Building and UNI Campanile. River City, Iowa includes Spirit Jazz Club and The Wild Rose Pub, live music venues, Lunar Passages Art Gallery with a trendy coffee house, Iowa Livery mall with store fronts for new SL ventures for student entrepreneurs, Danny's Diner and the Trysor Building, currently being used as a meeting hall. All of the facades are Midwest, small town Americana. Virtual Iowa also includes a farm, Iowa River swimming and the Iowa Queen Riverboat, the Iowa Technology Park and Decision Support World. A YouTube video of Virtual Iowa is available at URL <http://www.youtube.com/watch?v=qJ3NNhbbNTk>. You can also take the balloon tour of virtual Iowa, narrated by the Spirit of Iowa using chat.



**Figure 1. Welcome Center in Virtual Iowa**

Virtual Iowa is more than just a SIM in Second Life. It is a community. Past, present and future Iowans in RL have found a home in Virtual Iowa, not to mention plenty of other people of a variety of nationalities. The people of Virtual Iowa are kind, generous and hospitable in every way.

## BUILDING VIRTUAL IOWA

The main pluses of building Iowa in Second Life were the free client, reusable objects, building tools, a large community with experienced builders and corporate visibility for the platform. The vision was to create a place where Iowans and former Iowans and their friends, i.e., students, business people, faculty can come and have a great experience. The short-term goal from March until September 2008 was getting Iowa built. This was a much bigger project than anticipated. Then the focus changed to generating traffic and visibility. There was no formal feasibility study, this was an entrepreneurial project.

Design and development started with a square on a whiteboard that was approximately 64 cm by 64 cm. An island in Second Life is a maximum of 256 m. by 256 m. and we chose to use the square shape. The process involved incremental design with some formal components:

- ▶ Started trying different layouts. In retrospect, a grid system would have helped.
- ▶ Got feedback on the layout.
- ▶ The project was built in parts more than phases, 4 quadrants for the island.
- ▶ 3 primary builders.
- ▶ Some prefab content.
- ▶ The project manager did the layout, design and project management and coordination.
- ▶ Project took much longer than planned, due to use of volunteer labor.
- ▶ Goal had been for a 2-3 month build based on knowledge of other projects.

Requirements elicitation involved brainstorming and speaking with interested parties

- ▶ We went through 9 versions of the design plan and 2D sketches
- ▶ The basic design stayed the same, but got less ambitious as the project manager learned what was possible in 16 acres, a square 256 m by 256 m.
- ▶ Virtual Iowa was the driving vision and the Dean wanted a virtual College of Business building
- ▶ The requirements elicitation was primarily in terms of content, trying to create an environment for repeat visits, to provide teaching support, to encourage entrepreneurship and to attract a target audience

## CONCLUSIONS ABOUT BUILDING VIRTUAL IOWA

A build in a virtual world is art and function. One needs to create an association with reality when desired and create shared experiences. Replica builds like the UNI Curris Business Building require much more work than other structures and take much planning. While quite different in nature, the resource constraints when it comes to building in virtual Iowa are as real and require as much complex decision making as any real-world resource constraints. The quality of the build is reflected in the details like signage, subtle cues, textures that are appropriate, and links to fantasy and imagination. For example, River City is Merridith Willson's town for the play "Music Man" and besides naming the town in Iowa, we have a Meridith Willson Memorial Park. One island cannot replicate all of real life Iowa, so choices and tradeoffs were necessary. Finally, there is a need for ongoing marketing and management of a public island. One person can't create and operate an active virtual space that is 24/7/365.

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