

This copy is for your personal, non-commercial use only. This article may not be reprinted for commercial purposes without the written permission of Mechanical Engineering magazine and ASME. © 2008 Mechanical Engineering magazine

Input/Output

Real-Life Business in Second Life

by Jean Thilmany

Some businesses make real money selling products in virtual worlds like Second Life. But many businesses, including engineering firms, should at least test their products in virtual worlds, according to one professor of management information systems.

By prototyping new products in a virtual world—including engineered products even before they're created—a firm can save time and money and garner richer and more accurate feedback, said Brian Mennecke, an associate professor of management information systems at Iowa State University in Ames.

Toyota, for example, recently unveiled a virtual edition of its Scion xB for Second Life residents to test drive online, Mennecke said.

Second Life, which boasts 14.5 million users, is a five-year-old Internet-based virtual world developed by Linden Research Inc. Using avatars who stand in for themselves, players become residents who interact with each other in the online 3-D world, which marries social networking with gaming.



Brian Mennecke, an associate professor of management information systems at Iowa State University, poses before his Second Life avatar. He said business owners, including engineering firms, can take advantage of 3-D worlds to assess the reaction of potential customers to product concepts.

Residents explore, meet others, socialize, participate in activities, and create and trade virtual property and services. Some businesses housed in Second Life, for example, make thousands of real-life dollars. Journalists from CNET, *Wired*, and Reuters have opened bureaus in Second Life. The National Public Radio show "Talk of the Nation" routinely takes calls from Second Life residents.

In many ways, virtual worlds such as Second Life provide customers with a very similar experience to that of shopping in a real store, Mennecke said, and it's this experience that businesses and developers can exploit to gather business intelligence.

Because virtual worlds offer businesses the opportunity to present products—both existing products and those under development—in engaging and interactive ways, Mennecke expects these online spaces to become increasingly important for businesses as places to design, develop, and evaluate new product offerings.

Some companies are already doing this. Siemens PLM Software offers a way for customers and partners to experiment with new collaboration and visualization technologies on Second Life.

"We're working together to explore how these technologies can be used to improve business processes and innovation," a company statement says.

The hotel chain Starwood Hotels & Resorts used Second Life more than a year ago to evaluate a new design for one of its hotel brands, Mennecke said.

"By allowing anyone who used Second Life to visualize the floor plans, colors, aesthetics, and other characteristics of the proposed designs, Starwood was able to conduct what amounted to virtual focus groups to garner feedback and suggestions for improving the designs for the new hotel brand," he said.

A similar idea is one that Sears developed with IBM. The project resulted in a virtual store that could create realistic representations of a customer's potential kitchen or bathroom. It not only allows a customer to visualize how Sears products might look or fit in the home, but it also allows Sears to examine when and how its products succeed or fail, Mennecke said.

"This is important because size, color, and other tactile characteristics matter to all of us," said Mennecke, who has conducted research and taught courses in Second Life. "If you visit a Web site to buy a camera, you'll likely want to see many images of the camera from various angles so that you can sense what the camera looks like, how big it is, and where the controls are arranged."

Of course, it'll be some time before the online experience can provide customers with a sense of actually holding a product, feeling its weight, or sensing its texture. But it's likely that the game-like tools found in virtual worlds will soon be integrated into common Internet activities like searching for, evaluating, and purchasing products, Mennecke said.

"The 3-D nature of virtual worlds," he said, "will significantly enhance the way that businesses can engage with their customers."