



You can change your future for the better by rehearsing it first.

Published on June 16, 2017

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A lot of people ask us what is different about WTRI virtual world business simulations. There are companies offering similar options. An interview with our principal scientist, Dr. Lia DiBello is our attempt to explain the difference.

First of all, what industries have you worked in?

WTRI has worked in nine industry verticals as diverse as biotech, pharma, manufacturing, mining, power generation, transportation, financial services, education, health care and others.

What do you think sets WTRI's FutureView™ Virtual Worlds apart from the others out there?

Our simulations are “rehearsals”. So instead of looking at it as a structured “game”, it’s best to think of it as a “smart place”. Companies can actually rehearse a future strategy, market play or project iteratively until they are successful with a specific financial or performance goal. We found that this process aligns the teams and the thinking of the organization. Because they have “done it” and gotten it to work, the capability that is developed along the way, and the new thinking, transfer instantly back to real work.

We didn’t find this result with more “scripted” business games, so as cognitive scientists, we researched the reasons why. Then we used what we know about the brain to design something that works with how expertise develops from experience and how that can be accelerated.

How did that come about?

We have an interesting history. We started as university scientists trying to understand the role of cognition – expert thinking in specific – and the forces that affect businesses; what makes businesses successful and what causes their demise? We work with economists to help us define models of success, and with cognitive scientists to design activities that develop the underlying business capabilities in an accelerated fashion. Most of our early work in this area was funded by NASA and the National Science Foundation and has a strong scientific history.

How would someone find out more?

That research has been published widely and is pretty easy to find. Simply, what we found is that managers have a theory of their business or a mental model that may not be a good fit with what is actually happening. Further, business leaders don’t always have insight into opportunities they actually have, given market forces and the strengths they have to leverage. There are numerous examples of “failed” businesses that actually had huge opportunities if managers had been capable of seeing them, such as Kodak, Woolworth, Pan Am, Research in Motion (Blackberry), Zenith, TWA and so on. We found a way to identify the right goals and then change the mental models of executives. In short, the rehearsals very quickly get teams back on track by creating ways to rehearse the future repeatedly until they are successful with specific goals.

Were you successful?

Oh yes, very much so. Our estimates of the impact for our clients are in the billions. But the simulations were usually customized working physical models and very time consuming to design and build. However, they were very powerful and got more so over the years as we developed technologies that made it easier to make them highly complex.



What do these technologies do?

All of our simulations are powered by the FutureView™ Patterned Event Generator. This creates an unfolding future of business events, synchronized at several levels, from major market forces to specific transactions, such as a single sales transaction. In a few minutes we can take the activities of a firm, such as manufacturing and assembly, a model developed by an economist, and synch them to create literally hundreds of thousands of events. These unfolding events are the context in which the team must find success.

Are you using these technologies in virtual worlds?

We are. We started attaching the FutureView™ Patterned Event Generator to virtual worlds as early as 10 years ago. We used various commercially available multi-player virtual world and gaming platforms and developed an Application Program Interface (API) to connect our technologies to them. We added a Metrics Engine, which tracks behavior in the simulated environment and creates instant feedback for participants as they interact with smart objects. This technology also calculates the financial value of the simulated business activity in an ongoing manner. Using in-world billboards or

dashboards the user can pull up with a click on a button, participants on the team can always see how they are doing against a goal.

Most of that work was funded by the National Science Foundation, National Academies of Science and some corporate laboratories, such as IBM Labs and Siemens Labs.



What are you doing now and why?

We found the commercially available virtual worlds hard to work with. They are not built to respond to complex business technologies like ours. The intense information traffic crashed them or the environment was too small to build complex companies. But we were pleased with the proof-of-concept results. And of course, they were not built for the purpose we had for them.

Therefore, in 2015, we began to build our own world. This has worked much better because it was built to work with our technologies and designed specifically to rehearse and evaluate complex business. It can also host large multi-player teams on a cloud server. We have some environments that are 50 square miles or larger and which are Oculus™ ready. We also developed a world economy and a map. All our “companies” are located somewhere in this “world” and have the economic features of those regions as context.

This has proven to remove any constraints to making very powerful simulated environments.

What's next?

We think the problems of many companies are very similar and lower cost, scalable versions of our worlds will provide tremendous value. We like the idea that more people can access our science and attain greater success.

What have you done so far?

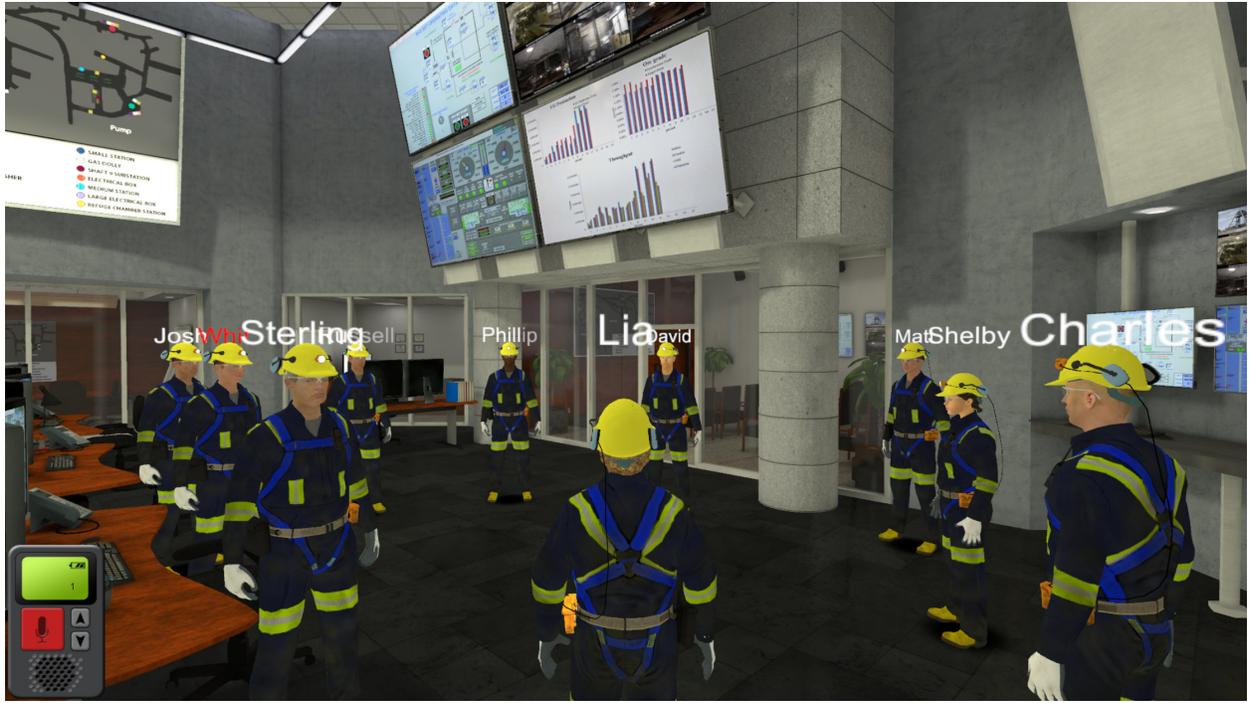
We created and are creating products for accelerating project management expertise in collaboration with the Project Management Institute. In tests last year with about 700 people world-wide, we proved that advanced project management skill that normally takes years to develop can be developed in weeks. This year we are conducting focused pilots with corporations in collaboration with PMI.

What's next with those kinds of efforts?

Currently we have other "generic" rehearsals under development, mainly in the "wicked problems" area and mergers and acquisitions. There is significant interest in the M&A rehearsal because of the high failure rate. We expect success similar to what we saw with the PMI product. Part of the reason is because early versions have been pre-piloted with about 100 people so far.

What do you predict for the future?

I think we have come full circle with the development of virtual worlds that are cloud based and multi-player. Human beings used to learn only through experience -- learning by doing -- for more than 100,000 years; it's part of our DNA. Virtual worlds now offer the means to do that again, only this time without risk to actual companies or people. However, the principle is the same. When properly designed as "smart places", Virtual worlds are experienced much more like real life and much less like a computer than anything else we have seen used for education or business improvement.



Pump

- SMALL STATION
- VALVE
- WATER TOWER

Josh Sterling

Phillip

Lia David

Mat Shelby

Charles

