

FutureView™ Smart MMO Mega Worlds for Solving “Wicked” Problems. A cost-effective solution with accelerated results and high impact

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Abstract

For decades, our team has explored accelerating expertise through a specific kind of “gamification”, which emphasizes unstructured tasks with high stakes “non-negotiable” goals and opportunities for rapid trial and error iteration. This approach – although new – has deep roots in long standing research on expertise (e.g., Chi, Glaser and Farr, 1988) and the cognitive mechanisms involved, which we have discussed in other work (DiBello 2011; DiBello 2019; Hoffman et. al 2014). Our research shows that this approach results in the development of deep domain expertise. In 2007, we incorporated the use of Massive Multi-player virtual worlds with advanced behaviour tracking and instant feedback as a way of increasing the power of this method and scaling it. The differences between these applications and our previous attempts were size and complexity. The number of people in the environment and the number of moving parts that could be in play (such as technologies and impacts) were much greater. Over time, we developed a platform automating our approach –FutureView™. Two uses have emerged:

1. Solving problems in corporations which are very complex, and which are solved more efficiently by exploring options in 3D, through iterative trial and error, usually in a collaborative team. These approaches go beyond “digital” twins which are models that users can observe, but which are not immersive. Rather, our models are immersive; people can log in as avatars allowing reality analogous models to be tested against contact with human actors trying out a new approach or a change in a workplace. Specifically, the *immersive participation of actual workers, customers or stakeholders executing proposed strategies or even company designs “inworld” allows all to see if the proposed plan will survive reality – and more to the point – contact with human actors.* The 3D platform, if rich enough, can both serve as places to “rehearse” what-if ideas, and as ways to cognitively extend the team’s ability to think about complex options.
2. Developing expertise more rapidly in what would be considered relatively “bounded” domains. Examples of these include project management, IT deployment for supply chain efficiency, understanding and managing risks in changing insurance markets with globalization, maximizing returns in mining, and even issues such as psychologically safe leadership, inclusion, and leadership approaches that promote innovative team practices, to name a few.

Why is this important? Managers and workers have their own notions of the goal and how to get there. Until they “enter” the model, both the model and the thinking and acting of users are not reality tested. Further, sometimes the interactions between human actors trying a model and the model reveal a better approach, which can then, in turn, be iteratively tested. Most important, all this can happen without the risk or cost of doing this in real life.

These iterative rehearsals have sometimes resulted in the discovery of an entirely new approach to business. A third usage has therefore emerged, related to the two above exploring *new approaches to difficult problems*. Specifically, massive 3D environments that are connected to outside data sources make possible business models that are too complex to understand without the assistance of 3D environments.

Recently, have been exploring the potential in various industries where there is high

uncertainty and where decisions have mission critical impact. We will discuss the results of case studies. The challenges addressed are: Portfolio management, ESG, accelerated leadership development, deploying advanced IT, making complex fleet decisions for complex operations, and measuring the impact of operational decisions on the firm's value in the context of changing mineral prices and lift costs in mining. Because the worlds are fully immersive, strategies can be tested with actual workers and managers.





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