
How an Online Expedition to Saturn Builds Better Leaders

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The year is 2087. You have been invited along with other students to join the Enceladus Expedition, the first commercial space mission to Saturn's moon Enceladus, whose south pole provides the only reliable source of liquid water beyond Earth. You accept this mission – and for a total of six hours over the next few days you will have to navigate real-world challenges as you compete with other teams during your online journey. You have joined The Saturn Parable simulation.

In the Outer Reaches of the Solar System

Jumping on a spacecraft to Saturn with other high school students from around the world may sound really appealing right about now, even from the comfort of your own computer. This particular escape, says Ethan Mollick, a Wharton associate professor of management who co-founded Wharton Interactive to create games that teach, is more than just a fun ride – it's a learning experience.

Mollick (with a team of collaborators) led the design of [The Saturn Parable](#), a multiplayer game that also teaches and evaluates leadership and team skills. The Wharton Global Youth Program has partnered with Wharton Interactive to provide the game to high school students this June (*see related links with this article to enroll*).

“Research shows that simulations are the best way to teach leadership,” says Mollick, who has spent 15 years building and studying games for teaching. “If you analyze the best way to train teams, for example, simulations beat out lectures, group exercises, performance reviews and all the other things we try.” Mollick, a long-time gamer, boasts some 410 games in his own library.

The Saturn Parable mission to Enceladus is critical because it will prove to be the key to humanity's expansion beyond Earth. The company that can land first on Saturn's moon will claim its water supplies and trillions of dollars worth of value. Players must solve problems throughout (think navigational decisions, telemetry data, and mission control mandates) as they make their way to Enceladus. They receive continuous performance feedback from the gaming interface, and Mollick delivers live Zoom lectures. Players are able to interact through the game, as well as with one another in their Zoom team room.

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For the duration of the simulation students are on their spaceship, in the outer reaches of the solar system. “You need to use your own skills in the art of persuading and collaborating with teammates,” notes Sarah Toms, co-founder and executive director of Wharton Interactive. “The best leaders hone their abilities through years of practice, lots of trial and error, and deep, personal reflection every step of the way while integrating the feedback of others. Simulations provide learners with a concentrated experience of each of these components. We can design the perfect scenarios that expose learners to concepts, providing opportunities to practice approaches to leadership and get feedback that's grounded in research and best practice.”

The Saturn Parable teaches three key levels of leadership, adds Mollick. “You learn about strategic leadership: how do you make large-scale choices and how do you apply some basic ideas of game theory and expected value to beat your competition. You learn about organizational leadership: how you craft messages and inspire groups of people and how you reconcile competing goals inside your organization. And you learn about team leadership: how you get a group of

people to do the things you want them to do and how you avoid mental traps people fall into that destroy team performance. How do you inspire and lead?"

Chocolate-covered Broccoli?

From the perspective of game designers, an interstellar mission is more than just a cool experience, it's an effective learning environment. "We need to put people in unfamiliar surroundings," says Mollick. "And it needs to have what we call verisimilitude or realism. It needs to feel realistic enough that your decisions matter and the world makes sense. We want to give you an experience you'll remember. That's important because then you'll remember the lessons." Even the star field in images for *The Saturn Parable* are positioned as they will be in 2087.

And, of course, you'll enjoy the ride, which is the ultimate goal for any gamer, and one that Mollick and Toms take seriously in their mission to pioneer new approaches to education. "This is not chocolate-covered broccoli where it's not a fun experience, but you pretend to make it fun by adding game around it. It's built from the ground up to be a good game," notes Mollick.

In this cutting-edge way of learning, adds Toms, the challenge is real. "The learner is in the driver's seat — or in this case, captain's chair — able to immediately put into practice the concepts and theories being taught. Students will come away with a deeper understanding of leadership and teamwork concepts, you will have made new connections with peers from across the globe, and you will have lots of fun."