Unlocking The Metaverse: The Cyber-Physical Relationship

January 16, 2024 | Session Overview

Speaker

Paul Doherty, President and CEO, The Digit Group

Moderator

Jennifer Hitzke, Director, Governance & Special Programs, National Institute of Building Sciences

Unlocking the Metaverse Overview

Emerging tech solutions like the Metaverse, artificial intelligence, blockchain, and digital twins are providing opportunities and challenges for the built environment.

On January 16, 2024, NIBS hosted a webinar on the cyber-physical relationship with Paul Doherty, President and CEO, The Digit Group. The webinar was part of the Building Innovation Webinar Series.

Doherty, author of Unlocking the Metaverse: A Strategic Guide for the Future of the Built Environment, published by John Wiley & Sons, took webinar attendees on an exploration of real-world solutions and projects that are challenging the industry.

In his presentation, Doherty discussed new technology terms and definitions and identified the value that digital twins, the Metaverse, AI, and blockchain can provide. Jennifer Hitzke, Director, Governance & Special Programs with NIBS, served as moderator.

No Cookie-Cutter Approach

Doherty opened his presentation, discussing the importance of data – beyond needing more than the latest and greatest – but maintaining things to keep them going.

"We need to allow these innovations to thrive," Doherty said. "We need to see them as ingredients that make recipes. This is not a cookie-cutter approach. … data [is] a big bucket."

Being open to technology will allow us to discover new innovations in industries like energy and water – something that already has been embraced by certain governments in their bids for urbanization.

Doherty then walked webinar participants through a history timeline on the technology experience, covering terms like digital twins, building information modeling, facility management, and smart cities.

Creating Outcomes in the Physical World

The term "digital twin" has been around forever. This began with two-dimensional blueprints, breakouts, and graphics to get design intent into the minds of constructors, Doherty said.

"A digital twin is a mirror," he said. "It should be exactly what is in reality."

The metaverse ecosystem has three layers: digital twins, virtual worlds, and the metaverse.

Doherty discussed several tools that are changing business, as we speak.

These include ChatGPT, SpecGPT, DALL-E-2, Midjourney, and roomGPT.io.

For example, SpecGPT is a tool that will shake up some industries, Doherty said. He used the example of using SpecGPT to create a large building with a certain square footage, using several different materials and finishes. Doherty himself said he could probably come up with project in roughly 40 hours. SpecGPT was able to do this in 42 seconds, and "it was 80 percent there."

"AI is not going to take your job, but someone using AI will," he said. "The rules are there are no rules."

Building Innovation Webinar Series

As part of our mission to continue conference education, NIBS launched a webinar series to reach even more professionals on new technology, trends, groundbreaking tools, best practices, and workforce solutions.

It's our way of extending the Building Innovation annual conference beyond the in-person meeting.

The next webinar – The Intersection of AI and Building Sciences: A New Era of Intelligent Infrastructure – takes place January 25, 2024.