

# Foundational Principles & Technologies for the Metaverse

Tim Sweeney

Founder & CEO

Epic Games

Cary, NC, USA

[tim.sweeney@epicgames.com](mailto:tim.sweeney@epicgames.com)

## ABSTRACT

Science-fiction notions of “the metaverse” are slowly becoming a reality as products such as Fortnite, Minecraft, and Roblox bring immersive social experiences to hundreds of millions of people and blur the boundaries between games and social networks. This talk will explore the foundational technologies, economies, and freedoms required to build this future medium as a force for good.

## CCS CONCEPTS

• **Networks**; • **Human-centered computing**; • **Theory of computation**; • **Computing methodologies**; • **Applied computing**;  
• **Computer systems organization** → **Real-time systems**;

## KEYWORDS

Metaverse, augmented reality, gaming, social networks, economics

### ACM Reference Format:

Tim Sweeney. 2019. Foundational Principles & Technologies for the Metaverse. In *Proceedings of SIGGRAPH '19 Talks*. ACM, New York, NY, USA, 1 page. <https://doi.org/10.1145/3306307.3339844>

---

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

*SIGGRAPH '19 Talks, July 28 - August 01, 2019, Los Angeles, CA, USA*

© 2019 Copyright held by the owner/author(s).

ACM ISBN 978-1-4503-6317-4/19/07.

<https://doi.org/10.1145/3306307.3339844>