Training in the Metaverse: How the DoD is Setting the Standard

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Learning Throughout the Lifespan

Education Technology Evolution

2004: 94% of schools have a classroom with internet access.

2005: 94% of schools have a classroom with internet access.

2008: Poll everywhere launches.

2010: iPad is released.

2011: NYC Public Schools order 2000 iPads for students.

2014: Apple Watch is released.

2014: Google Classroom released.

2018: Kitaboo AR turns paper books into interactive eBook.

2019: Predictive Learning Analytics.

2020-2022 COVID


2020: Virtual Meeting apps gain increased popularity.

2026

2030

% of Students born in 2004+

Failure of current educational methods to meet need.
Typical Training Process Today

Enter The Metaverse

- Not a new concept but has reached pop culture status
  - Everyone has different definitions!

- A digital representation and network of virtual worlds where social experiences across domains exist

- Training in the metaverse?
  - Simply refers to a digital network where immersive training can live...
  - No single or cohesive metaverse at this point
  - This talk will focus on one aspect of the ‘metaverse’ – Extended Reality (XR)
DoD and XR Training

XR Training is being used across the services!
Challenges With XR Training

01 Lack of infrastructure to track, host, and report the training data outcomes

02 XR training solutions are stove-piped

03 Lack of system integration between XR training technologies and the standard LMSs
Future Vision For Air Force Lightweight Sims Ecosystem (LSE)

Training Data HUB

- LMS
- Content Mgmt.
- Performance Analysis
- Connectivity

Future is Data Centric, with networked tools that assist Instructors, and provides students with self-executed training options.
Building an Open Ecosystem
Implementing the Vision

- AI Agents
- Images
- Videos
- Lessons
- Lightweight SIMS
- Map Packs
- Scenes
- Apps
- 3D Models
- Software & Device Agnostic

Connected 3rd Party Tools
- Modular Open Systems Approach
- Open APIs and SDKs
MOTAR is delivering XR content and reporting data through xAPI industry standards for total interoperability.
Realizing Benefits

- Pilot program with MOTAR – Crew Chief Fundamentals Course
  - Powered 4 XR company’s training content in one seamless experience
  - Students completed the course 42% faster than traditional instruction
  - No performance trade-offs!
  - Saves approximately $27,000 per airmen

*The DoD is revolutionizing the mechanism for delivering and reporting XR training enabling a new metaverse for military training!*
THANK YOU

Questions?
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