Immersive Sciences as Building Blocks for the Training of Tomorrow

The Infantry is the soul of the Marine Corps and its training is very traditional focusing on field exercises. Budget, safety, and manpower factors continue to impact the ability to conduct live training exercise, so there is a growing interest in developing simulations for infantry that are akin to those used by aviators. However, the technical challenges faced by ground forces differ from those in other environments. I will describe a few of the technical challenges associated with training USMC ground forces, and provide an overview of the efforts that HPT&E is undertaking to address those technical challenges. I will specifically focus my talk on the use of immersive sciences to develop basic understanding and frameworks that can then be applied to more advanced research efforts.

ABOUT THE SPEAKER

Dr. Peter N. Squire is the program officer for Human Performance, Training, and Education (HPT&E) in the Office of Naval Research’s Expeditionary Maneuver Warfare and Combating Terrorism Department. As the HPT&E program officer, he manages a broad portfolio of research projects, basic research through advance technology development efforts spanning across a variety of research domains — e.g., psychology, physiology, education, and computer science.

Dr. Squire received his B.S. with Honors in Computer Science from Mary Washington College, his M.A. as well as Ph.D. in Human Factors and Applied Cognition from George Mason University focusing on cognition (working memory and attention), automation, and human-robot interaction. Prior to joining ONR he worked at the Naval Surface Warfare Center Dahlgren Division (NSWCDD) for ten years holding several positions. He started his career at Dahlgren as a computer scientist developing software for Naval gun weapon systems. Next, he worked as a biologist, investigating the binding of antibodies to carbon nanotubes and neurons. Finally, he worked as an engineering psychologist within the Human System Integration group, spearheading science and technology efforts.

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