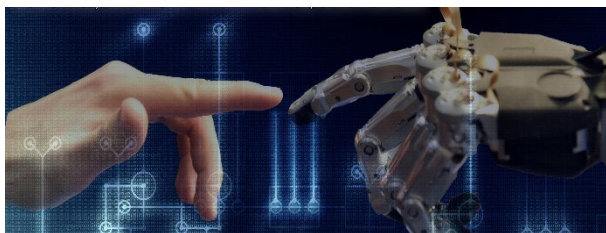# What is Mad Scientist?

- ➢ **Explores the future OE**

- ➢ **Develops collaborative partnerships with academia, industry, and government**

- ➢ **Shapes future land operations**
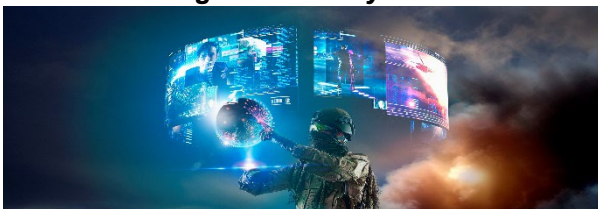
- ➢ **Increases the rate of innovation in our Army**

Visioning the Future

Story Telling: *using creative fiction and narrative to describe how new technologies can be operationalized*

Crowdsourcing: *collecting diverse concepts to challenge future assumptions*

Edge Cases: *exploring extreme possibilities for new / emerging technologies*

Historical Analogy: *applying past events to imagine the Army of the future*

Upcoming Events

Sci-Fi Writing Contest 2019:
Near-Peer MDO in 2030
23 January through 1 April 2019

Disruption and the FOE
24 & 25 April 2019
University of Texas at Austin

Conflict Trends in the OE 2050
15-17 July 2019
National Intelligence Council

Past Events on YouTube
https://www.youtube.com/user/G2TBOC

"Learning in 2050"
8 & 9 August 2018
Georgetown University

"Installations of the Future"
19 & 20 June 2018
Georgia Tech Research Institute

"Bio Convergence and Soldier 2050"
8 & 9 March 2018
SRI International – Silicon Valley

Questions? Contact the TRADOC G-2 at:
001-757-806-0933
Join our Community on APAN:
https://community.apan.org/wg/tradoc-g2/mad-scientist/
Visit the Mad Sci Laboratory blog:
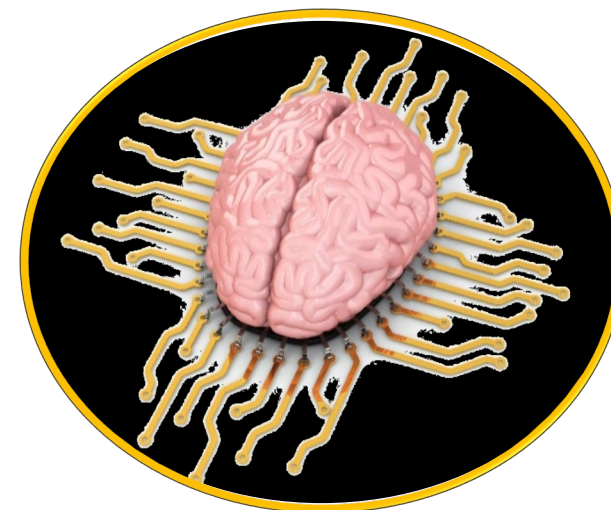https://madsciblog.tradoc.army.mil

Twitter: @ArmyMadSci

Version: 10 April 2019

U.S. Army Training and Doctrine Command

Mad Scientist Initiative: Supporting the Operational Environment Enterprise

Confronting the Future… Now!

The 12 Trends We Are Watching
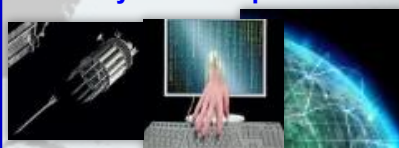

Big Data

Power Generation and Storage
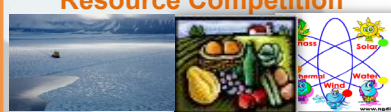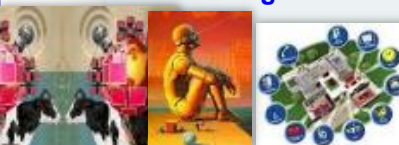
Cyber and Space

Collective Intelligence

Technology, Engineering & Manufacturing

Climate Change and Resource Competition

Artificial Intelligence

Human Computer Interaction

Demographics and Urbanization

Increased Level of Human Performance

Economic Rebalancing

Robotics

Legend:
- **Emerging S&T Trends** (red border)
- **Society, Biomed & Performance** (green border)
- **Information, Space, Cyber & Computing** (blue border)
- **Strategic World** (orange border)

TRADOC G-2 continuously examines and develops new ways to understand, describe, and deliver the conditions of the OE

What We Have Learned

Mad Scientist Themes

➤ **AI, Robotics, and Autonomy:**
with Georgia Tech Research Institute
- Self-disruption to shape future
- All things will be smart, connected, and self organizing
- AI and humans must co-evolve

➤ **Enemy After Next:**
with NASA Langley
- Democratization of advanced weaponized technology
- Speed of algorithm v algorithm

➤ **Multi-Domain Battle 2030-2050:**
with Georgetown University
- The Brain a new battlefield objective
- Asymmetry of Ethics

➤ **Bio-Convergence and Soldier 2050:**
with SRI International
- The Internet of Living Things
- Human judgement in machine speed warfare

➤ **Black Swans & Pink Flamingos:**
with National Ground Intelligence Center
  Black Swans, "unknown, unknowns"
- Virtual Nations, "Alternet"
  Pink Flamingos, "known, knowns"
- Space/ Counterspace, Deep Fakes, Hypersonics, Quantum Sensing

➤ **Installations of the Future:**
with Army Secretariat and Georgia Tech
- Tech rapidly outpacing policy/reg
- Tension between openness & security

➤ **Learning in 2050:**
with Georgetown University
- Learning demand is speeding up
- Geolocation less important for learning
- New skills for Army of 2050 not articulated yet