Mad Scientist
Science Fiction Writing Contest
Topic: WARFARE IN 2030-2050

Sci Fi writers, think about how trends in science, technology, society, the global economy, and other drivers could lead to new technologies that change the world in a meaningful way, with implications for how the Army operates in future conflicts—all wrapped up in a science fiction story. Draw on your own creativity, expertise and materials provided in this packet to spark your creative story. We're looking for a story that is 5000 words (8 pages).

- We are looking for ideas that are unorthodox and outside of what the Army is already considering about the future.

- Be mindful of the time frame – We are looking for ideas about Warfare in 2030-2050 that could have an influence on the world in 2050. This means technologies that will be mature enough over the next 35 years to approach real world application. Now, we want you to push the edge of what might be feasible by 2050. However, avoid ideas that violate the laws of physics. In DoD parlance, we are looking for ideas that could reach Technology Readiness Level (TRL) 5 or 6 by 2050.

What is the U.S. Army going to do with these stories?
Glad you asked. In the immediate term, your stories will be used as input into the Mad Scientist Initiative, ASA (ALT) (Assistant Secretary of the Army (Acquisition, Logistics and Technology) and ARCIC (Army Capabilities Integration Center). These stories are being used to explore fresh ideas about the future of warfare and technology. **The Army is specifically looking for unconventional thinking, which is why we want you to participate!**

What if I have questions?
Should you have questions at any point, please feel free to contact Allison Winer (allison.d.winer.civ@mail.mil)

On the next page you will find a list of 10 broad trends that could shape the world in 2050. These trends were identified through a horizon scanning analysis conducted by ASA (ALT) for its annual S&T Emerging Trends report.

Five of the trends you have been given relate to emerging domains of science and technology that leading experts agree could have an impact on the global economy and security environment. The other five trends reflect driving forces in society, politics, defense, and other domains that could shape the context in which technology evolves over the coming decades. ***The ideas are here simply to spark your creativity. <u>Submissions are not limited or bound to these ideas!</u>***

<u>Please keep your contributions at the UNCLASSIFIED level.</u>

Thank you for helping the Army think about how technology change the world and influence Army operations over the next 35 years!

Enter here on APAN: https://community.apan.org/wg/tradoc-g2/mad-scientist/p/science_fiction_writing_contest/

Mix and Match Ideas- Food for Thought

Note: The ideas are here simply to spark your creativity. Submissions are not limited or bound to these ideas!

SCIENCE & TECHNOLOGY

Synthetic biology
Materials science is an important cross cutting trend for many future technologies ranging from clothing, to additive manufacturing, to biomedical engineering, giving humanity the ability to transform life itself.

Internet of things
The increased prevalence of integrated sensors and networked technologies will provide significant social and economic impacts through more efficient production, optimized logistics, flexible smart grids for utilities and transportation, and countless other applications.

Autonomous systems
The continued advancement of robotics, machine learning, and artificial intelligence will permeate every aspect of everyday life and military operations, enabling humans to focus on more complex tasks.

Changing nature of work
Technology is underwriting a significant change in the relationship between individuals and their work. Freelancing is on the rise, fueled by access to web-enabled marketplaces and collaboration tools.

Mobile & cloud computing
The explosion of mobile computing coupled with distributed processing and data storage is providing the individual with easy access to information, potentially revolutionizing sectors from education to medicine.

CONTEXT

Individual empowerment
individual empowerment will accelerate owing to poverty reduction, growth of the global middle class, greater educational attainment, widespread use of new communications and manufacturing technologies, and health-care advances.

Tensions around privacy and digital security
The global expansion of cyber space will force societies to reconsider privacy in the 21st century, especially as cyber crime and cyber warfare become increasingly commonplace.

Global Inequality
While material conditions for most people are likely to improve over the next 30 years, the gap between rich and poor is likely to increase. Absolute poverty will remain a global challenge. Significant per capita disparities will exist within most countries and across some regions.(Especially in a Megacity or Dense Urban Area)

Climate change
Over the next 30 years, the shifting global climate will create rising temperatures, rising sea levels, and decreased agricultural output, all of which will exacerbate political and social tensions in many of the world's most conflict prone areas.

Anti-access/Area denial
The rise of China and other potential near-peer competitors will increasingly constrain the external intervention capability of the US military.

Source: Office of the Deputy Assistant Secretary of the Army (Research & Technology)