



US military will have more ROBOT soldiers on the battlefield than human soldiers by 2025.

3G	4G	5G
Total time: 30 hours	Total time: 9 minutes	Total time: 3.8 seconds

SOURCE: CONSUMER TECHNOLOGY ASSOCIATION

“Every single industry in the world will be disrupted in the 2020’s by a combination of these and other technologies.”⁴⁶
- Tony Seba

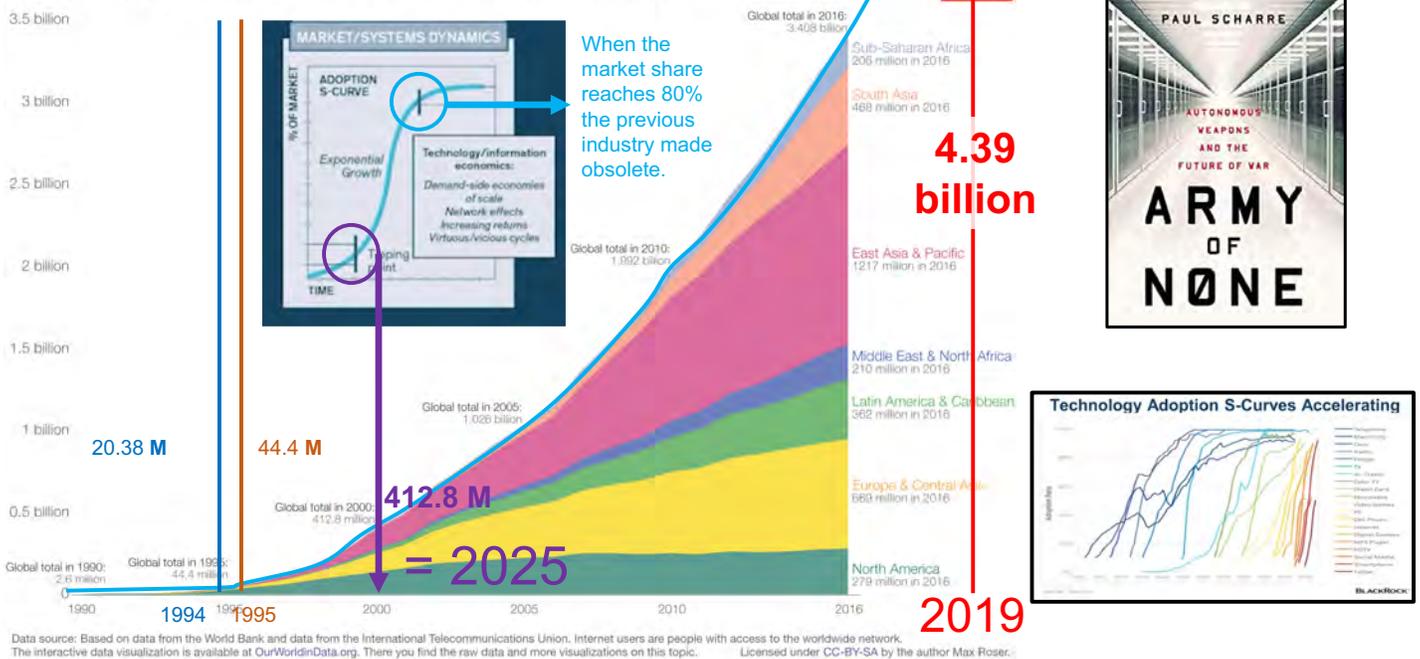
- Sensors / Internet of Things
- Artificial Intelligence / Machine Learning
- Robotics
- Solar PV
- Batteries
- 3D Printing
- 3D Visualization
- Mobile Internet & Cloud
- Big Data / Open Data
- Unmanned Aerial Vehicles / Nano Satellites
- Blockchain

The 2020’s will be the most disruptive decade in history. Every single industry in the world will be disrupted by a combination of these technologies and others.

“Robotics and artificial intelligence are where the internet was in 1994.”¹⁴

-BRANDON TSENG former Navy SEAL & Co-Founder of SHIELD AI

Internet users by world region since 1990



This quote came from Paul Scharre’s 2018 book, Army of None, where Sharre goes over the ethical, practical and economic issues surrounding autonomous weapons and the future of war. Brandon Tseng served as a Navy SEAL for seven years and later Co-Founder of SHIELD AI. Shield AI builds artificially intelligent systems to protect service members and civilians. As an expert on military technology Tseng gives us a metaphorical timeline when he said, “Robotics and artificial intelligence are where the internet was in 1994.” Applying Tseng’s prediction to the economic theory of market adoption, with the help of the graph, “Internet users by world region since 1990,” we see that in 1994, the number of users of the internet was 20.38M. Just one year later that number doubled to 44.4M. According to Tseng 2018 (robotics and AI) and 1994 (internet) were synonymous, so it is sufficient to postulate that 2019 and 1995 are the same. This means in the next 6 years the market will increase 10X what it is now.

The “Exponential Market Adoption S-Curve” is how economists track the disruption of industries. As you can see the graph in the bottom corner demonstrates how quickly new industries are being adopted, causing the old industries to be obsolete. The tipping point of the S-Curve occurs when the industry’s growth becomes exponential. As we are postulating this is 2025, the advancements we will see in the next few years are going to look like they came straight out of a Si-fi film. When the market adoption reaches 80%, the previous industry is displaced. It is safe to assume the future of warfare is going to be disrupted by robotics and artificial intelligence. ⁴⁶

With the disruption of modern warfare will come many necessary changes, perhaps the most important being the type of warriors the Military will need to recruit and retain.

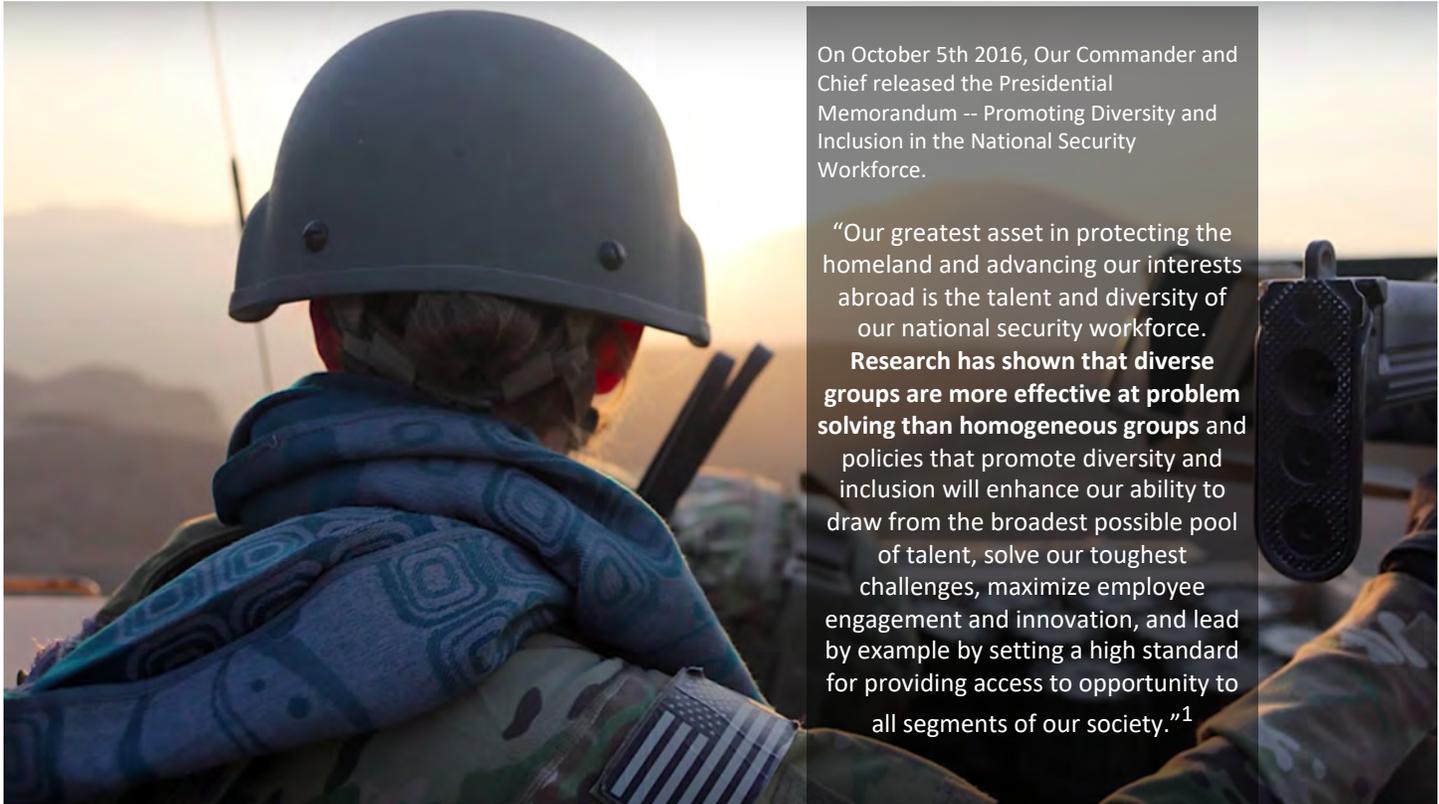
COMBAT GROUP THINK

- The Segway
- Pearl Harbor
- Bay of Pigs
- Watergate
- Challenger

Groupthink is a psychological phenomenon that occurs within a group of people in which the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome. The best way to combat groupthink is through diversity. The more the military expands into autonomous weaponry and technological warfare, the type of soldier that is recruited will of necessity, be quite different than the current recruits.

As a result of this approach, greater diversity will stimulate more stability and innovation. This will increase the need for cross-cultural awareness, and sensitivity to another's background. BeVoco is the tool that can help bridge culture and gender gaps, enabling the Military to move towards its goal of a 50% representation of women in the military.





On October 5th 2016, Our Commander and Chief released the Presidential Memorandum -- Promoting Diversity and Inclusion in the National Security Workforce.

“Our greatest asset in protecting the homeland and advancing our interests abroad is the talent and diversity of our national security workforce.

Research has shown that diverse groups are more effective at problem solving than homogeneous groups and policies that promote diversity and inclusion will enhance our ability to draw from the broadest possible pool of talent, solve our toughest challenges, maximize employee engagement and innovation, and lead by example by setting a high standard for providing access to opportunity to all segments of our society.”¹

On May 2nd, 2019, Dr. Van Winkle addressed the Department of Defense in reference to the 2019 Annual Report on Sexual Assault in the Military. She stressed the need to change the strategic approach to this serious issue: *“Where we are seeing the biggest issue, is not only getting from the top-down, which is what we have been typically doing for the last ten years, but starting from the bottom-up too. Recognizing that we need to have military members at ALL levels taking responsibility for [sexual assault].”*¹



The Author of Cross-Cultural Competence for a Twenty-First-Century Military: Culture, the Flipside of COIN, Dr. Allison Greene-Sands, we learn that Top-Down efforts alone do not work.

“Institutionalizing any change in professional development requires support and assistance of people within the community of operators, but also within the bureaucracy of the supporting establishment...Getting Senior leadership support is helpful, but ultimately, it is not the senior leaders who guide an idea to integration.”¹



If you want to influence behavior you must understand why the current culture acts the way they do.



According to Dr. Greene-Sands, we might bridge the gaps between social science practice and the military leadership's organizational development by understanding those within the community of operations.

Works Cited:

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4. Van Winkle, Dr. Elizabeth. "Latest Sex Assault Stats are 'Call to Action' for DOD Leaders, Official says." Interviewed by Jim Garamone. 2 May, 2019. <https://dod.defense.gov/News/Article/Article/1833511/latest-sex-assault-stats-are-call-to-action-for-dod-leaders-official-says/>.
5. Image: <https://www.youtube.com/watch?v=Ru9P7ULcJLU>.
6. Sands, Robert Greene, and Allison Greene-Sands. *Cross-Cultural Competence for a Twenty-First-Century Military: Culture, the Flipside of COIN*. Lexington Books, 2014.
7. Sands, Robert Greene, and Allison Greene-Sands. *Cross-Cultural Competence for a Twenty-First-Century Military: Culture, the Flipside of COIN*. Lexington Books, 2014.
8. Images: <https://www.nytimes.com/2019/02/28/us/politics/afghanistan-military-withdrawal.html>.