

# ***ARMY OF NONE***

**A VERY IMPORTANT BOOK**

**Review & Analysis**

**35 ISMOR**

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# BLUF

- The book is an easy read; no complex writing, arcane phrases, obscure concepts. The reader has no difficulty in understanding what the author, Paul Scharre, is telling us.
- I argue that the scholarship is convincing; Scharre interviewed the right sources; he was granted access to recognized experts and applied the information gained appropriately and effectively.
- Given the extensive list of factors, issues, concerns compiled by Scharre, it is hard to think of topics important to the topic of autonomous weapons acting without human control that were overlooked by the author. [Perhaps an exercise for readers!]

# THE AUTHOR

- Paul Scharre is director, Technology & National Security Program, Center for a New American Security, a Washington, DC think tank
- He is a former U.S. Army Ranger, with combat service in Iraq & Afghanistan
- The Book, sub-titled *Autonomous Weapons and the Future of War*, was published earlier this year

# THE BOOK

- 436 pages with copious notes, acknowledgments, abbreviations, illustration credits, & index
- Six parts, with an Introduction (The Power Over Life and Death)
  - ROBOPOCALYPSE NOW
  - BUILDING THE TERMINATOR
  - RUNAWAY GUN
  - FLASH WAR
  - THE FIGHT TO BAN AUTONOMOUS WEAPONS
  - AVERTING ARMAGEDDON: THE WEAPON OF POLICY
- 21 chapters, distributed over the six parts, plus a Conclusion

# THE CHAPTERS: A WALK THROUGH

- 1. The Coming Swarm (The Military Robotics Revolution)
- 2. The Terminator and the Roomba (What is Autonomy?)
- 3. Machines that Kill (What is an Autonomous Weapon?)
- 4. The Future Being Built Today (Autonomous Missiles, Drones, and Robot Swarms)
- 5. Inside the Puzzle Palace (Is the Pentagon Building Autonomous Weapons?)
- 6. Crossing the Threshold (Approving Autonomous Weapons)

# THE CHAPTERS (CONTINUED)

- 7. World War R (Robotic Weapons around the World)
- 8. Garage Bots (DIY Killer Robots)
- 9. Robots Run Amok (Failure in Autonomous Systems)
- 10. Command and Decisions (Can Autonomous Weapons Be Used Safely?)
- 11. Black Box (The Weird, Alien World of Deep Neural Networks)
- 12. Failing Deadly (The Risk of Autonomous Weapons)
- 13. Bot vs. Bot (An Arms Race in Speed)

# THE CHAPTERS (CONTINUED)

- 14. The Invisible War (Autonomy in Cyberspace)
- 15. “Summoning the Demon” (The Rise of Intelligent Machines)
- 16. Robots on Trial (Autonomous Weapons and the Laws of War)
- 17. Soulless Killers (The Morality of Autonomous Weapons)
- 18. Playing with Fire (Autonomous Weapons and Stability)
- 19. Centaur Warfighters (Humans + Machines)

# THE CHAPTERS (CONCLUDED)

- 20. The Pope and the Crossbow (The Mixed History of Arms Control)
- 21. Are Autonomous Weapons Inevitable? (The Search for Lethal Laws of Robotics)
- Conclusion (No Fate but What We Make)



# DISCUSSION-QUESTIONS

- Key chapters
  - Possibilities of failures (9)
  - Command & Decisions: Safe use? (10)
  - Arms Control (20)
  - Inevitability: Lethal Laws of robotics (21)
- Questions
  - Is there a chance that full autonomy (super intelligence) may never be achieved?
  - How often do battlefield situations occur that require decisions faster than humans think?
  - How important are those decisions?

# EXCERPTS: *CONCLUSION* CHAPTER

“The visions of possible futures presented in this book...are only wisps of imagination. The real future unfolds one step at a time, one line of code at a time. Will the future be shaped by technology? Of course. But that technology is made by people...humanity has choices.”

“The technology to enable machines that can take life on their own, without human judgment or decision-making, is upon us...We can use artificial intelligence to build a safer world...Or we can become seduced by the allure of machines—their speed, their seeming perfection, their cold precision. We can delegate power to the machines, trusting that they will perform their assigned tasks correctly...and hope we haven’t got it wrong...”

“...[T]he conscious choice to pull back from weapons that are too dangerous, too inhumane—is what is needed today.”

“Machines can do many things, but they cannot create meaning. They cannot answer these questions for us. Machines cannot tell us what we value, what choices we should make. The world we are creating is one that will have intelligent machines in it, but it is not for them. It is a world for us.”

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***LOCKHEED MARTIN***

