

## Conference Overview

Modern warfare is making increasing use of technology-mediated operations such as those involving weaponized remotely piloted aircraft (RPAs), robotic agents and vehicles with autonomous capabilities, and cyber-attack strategies. These types of operations raise many important questions related to the philosophical and ethical implications of technology-mediated warfare as well as the psychological, emotional, and social consequences of these systems both for their users and their victims. This conference brings together a core group of scholars, researchers, and stakeholders from Europe and the U.S. to examine several of these important questions in detail.

Including both social science and ethical perspectives in this discussion is important for two reasons. First, social scientists have not often been party to conversations about modern warfare strategies. Second, there is a growing realization among a number of philosophers that many ethical considerations, including those related to warfare technologies, need to be informed by empirical findings about how people and social groups actually behave.

This conference is sponsored by the United States Air Force Office of Scientific Research and the University of Notre Dame's Institute for Scholarship in the Liberal Arts.

For more information, including abstracts and participant bios, visit [ccrowell.nd.edu/home/tew](http://ccrowell.nd.edu/home/tew)

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# Technology-Enhanced Warfare: Perspectives from Ethics and Social Science



October 17–18, 2017  
University of Notre Dame  
Rome Global Gateway



Arts and Letters  
International

All events will take place in room 202 of Notre Dame's Rome Global Gateway building, unless otherwise noted.

## October 16 Pre-conference Day

19:00 Welcome reception and dinner The Lancelot Hotel

## October 17 Conference Day 1: Ethical Perspectives

09:00–09:10 Welcome and opening remarks  
Charles Crowell, University of Notre Dame

09:10–09:25 Day 1 Conference Context: The Importance of Ethics  
Maj. Gen. (Ret.) Robert H. Latiff, George Mason University and University of Notre Dame

09:30–10:15 Military Ethics and Cyber Conflict  
George Lucas, Naval Postgraduate School

10:20–11:05 Corporate Digital Citizenship and the New Cold War  
Fritz Allhoff, Western Michigan University  
Andrew Marquis, Western Michigan University  
Keagan Potts, Western Michigan University

11:10–11:35 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

11:35–11:55 Break

12:00–12:45 Virtue Ethics and Technology Enhanced Warfare  
Don Howard, University of Notre Dame

12:50–13:35 The Need for Ethical and Moral Competence in Autonomous Systems  
Matthias Scheutz, Tufts University

13:40–14:05 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

14:10–15:10 Working lunch provided in meeting facility

15:15–16:00 Designing Ethical Decision Making in Autonomous Weapons Systems: What is Appropriate?  
John Sullins, Sonoma State University

16:05–16:50 Criteria for the Ethical Use of (Semi-) Autonomous Systems in Security and Defense  
Markus Christen, University of Zurich

16:55–17:20 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

17:25–17:45 Break

17:50–18:35 The Troubles We Do Not Avoid: Human Character and the Emerging Technologies of War  
Shannon Vallor, Santa Clara University

18:40–19:05 General discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

19:45 Dinner at Naumachia (walking distance)

## October 18 Conference Day 2: Social Science Perspectives

09:00–09:10 Opening remarks  
Charles Crowell, University of Notre Dame

09:10–09:25 Day 2 Conference Context: The Importance of Social Science  
Maj. Gen. (Ret.) Robert H. Latiff, George Mason University and University of Notre Dame

09:30–10:15 The Justifications and Effects of Remote Killing  
Hugh Gusterson, George Washington University

10:20–11:05 Psychological Health Outcomes of USAF Weapon Strike Predator/ Reaper Remotely Piloted Aircraft Operators  
Wayne Chappelle, U.S. Air Force Research Laboratory

11:10–11:35 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

11:35–11:55 Break

12:00–12:45 RPAs in Irregular Conflicts: A Sociological Analysis  
Wilbur Scott, U.S. Air Force Academy

12:50–13:35 Moral Decision Making in an RPA Simulation Context  
Michael Villano, University of Notre Dame  
Maj. Dan Moore, U.S. Air Force Academy  
Julaine Zenk, University of Notre Dame  
Charles Crowell, University of Notre Dame  
Markus Christen, University of Zurich

13:40–14:05 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

14:10–15:10 Working lunch provided

15:15–16:00 Kill-Proofing the Soldier: U.S. Military Biotechnology Programs and the Ethics of Military Performance Enhancement  
Andrew Bickford, Georgetown University

16:05–16:50 Shared Human-Robot Control: Frameworks for Embedding Moral and Ethical Values  
Catherine Tessier, ONERA  
(Office National d'Etudes et Recherches Aérospatiales)

16:55–17:20 Discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

17:25–17:45 Break

17:50–18:35 Moral Robots? Investigating Human Perceptions of Moral Robot Behavior  
Matthias Scheutz, Tufts University

18:40–19:05 General discussion  
Moderator: Thomas E. Creely, U.S. Naval War College

19:05 Concluding remarks  
Charles Crowell, University of Notre Dame

19:45 Dinner at Hotel Forum (walking distance)