



REFLECTIONS FROM THE FIRST ANNUAL CONFERENCE ON THE FUTURE OF WAR

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ABOUT THE PROGRAM

The Future of War project – a partnership between New America and Arizona State University – brings together thinkers and practitioners from the worlds of law, technology, political science, history, policy, the military, and the media to address the challenges posed by changes in how wars are fought.



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REFLECTIONS FROM NEW AMERICA AND ARIZONA STATE UNIVERSITY'S FIRST ANNUAL FUTURE OF WAR CONFERENCE

On February 24-25, 2015 New America and Arizona State University held the First Annual Future of War Conference. The event featured top thinkers and policymakers from academia, major media, think tanks, the military, government agencies, and civil society. The conference was co-sponsored by CNN, had over 400 attendees, and over 9,000 viewers via live-streaming.

The following are some key insights from the event.

1. The future of war will be defined by uncertainty
2. Small wars will continue and the United States may continue to lack an effective strategic response
3. The future of war will increasingly involve unmanned and autonomous weapons systems
4. Cyberspace will expand as a key domain of conflict
5. The United States' security capacity will increasingly depend upon the ability to integrate multiple capabilities and adapt to change
6. Armed conflicts will involve hybrids of state and non-state adversaries
7. War will increasingly involve the private sector
8. Existing legal and political systems are unprepared for the changing nature of war
9. Cities and megacities will play a growing role in defining global security threats
10. The invasion of Iraq will continue to loom large in the United States' strategic thinking
11. Viruses, and diseases, both natural and man-made, as well as biological modifications will challenge international security
12. Civil/military relations may stress the United States' capacity to address future threats
13. Climate change will shape the future of war
14. Big data and mass surveillance will threaten civil liberties and human rights and play a growing role in future conflicts
15. Interstate war will remain rare, elements of global violence may decline, but armed conflict will retain many of its core qualities

In the following pages, each of these ideas is explored in greater depth.

1. The Future of War will be defined by uncertainty. Multiple presenters stressed the uncertainty and complexity surrounding current and future conflicts. Chief of Staff of the U.S. Army Gen. Ray Odierno called the global situation the most uncertain moment of his career. Dr. Arati Prabhakar, director of DARPA, noted the shift from when she started work during the Cold War to the present, remarking that the threat of a monolithic

enemy now appears comfortingly simple, “a luxury” the U.S. no longer has. The challenges of contemporary conflicts were described as a “holistic mess,” a collection of “wicked problems” for which there is no real solution, and complex in that they are “global rather than international.” Former Pentagon official and New America Fellow Sharon Burke remarked that the modeling of threats and responses is inadequate and that calls for a “grand strategy” may indicate a failure to recognize the intricate and interconnected nature of current and future threats. ASU professor Nadya Bliss suggested that we must become comfortable with uncertainty and that this situation presents opportunities for innovation and collaboration.

2. Small wars will continue and the U.S. may continue to lack an effective strategic response.

Conference participants agreed that while small wars will continue in multiple regions, the U.S. and allies lack adequate strategies to confront these threats. David Kilcullen, counterinsurgency advisor to Gen. David Petraeus in Iraq, noted that adversaries are highly adaptable so that established policies can quickly become ineffectual. New America Fellow and Navy SEAL Lt. Commander (Reserve) Chris Fussell considered the inadequacy of traditional military approaches, highlighting the success of newly evolving networked models for confronting insurgencies. Peter Bergen, co-director of the Future of War Project, suggested that the willingness to innovate in Iraq in 2006-7 may not be replicable without a similar sense of domestic political crisis caused by the fear of losing the war. Former U.S. Air Force Special Forces officer Ioannis Koskinas echoed this idea by suggesting that lessons learned from a more nimble, responsive approaches have not been embraced by the defense establishment, as revealed by the continued reliance on traditional training methods in Iraq and elsewhere. Various presenters questioned the possibility of successful efforts involving only air campaigns with limited ground troops as well as the risks of a general unwillingness to consider conflicts based on a multi-year timeline and from the perspective of local populations.

3. The future of war will increasingly involve unmanned and autonomous weapons systems.

Drone technology is rapidly proliferating with New America data showing that more than 85 countries have large-scale programs along with a number of non-state actors. Autonomous weapons systems are also advancing and, when polled, well over half the conference audience believed fully autonomous weapons would be deployed within a decade with only one in eight believing such weapons would never be used. Tom Malinowski, Assistant Secretary of State for the Bureau of Democracy, Human Rights and Labor, raised key questions regarding the legal and policy challenges posed by the proliferation of autonomous weapons systems. ASU professor Werner Dahm, former Chief Scientist for the U.S. Air Force, explained that there are no technical barriers to deploying fully autonomous systems and suggested a country other than the U.S. may well be the first to deploy a number of them, which could drive the global development of such systems. Multiple presenters suggested that the U.S. may not dominate these fields for long and that the financial costs of drone and other technologies will continue to decrease opening up the possibilities of far wider use. Peter Singer, Senior Strategist at New America, drew attention to the importance of how ideas about “robots” structure how we conceptualize emerging military technologies, and suggested that future weapons systems will be developed to take advantage of areas of structural weakness among traditionally dominant militaries, such as the U.S.

4. Cyberspace will expand as a key domain of conflict. Cyberattacks are common and will increase such that the U.S. and others will have to defend themselves through multiple strategies including systems that

support resiliency and redundancy. Gen. Raymond Odierno warned that cyber capabilities offer a relatively inexpensive means of attack and urged the creation of national level cyber capabilities. He noted the establishment of a cyber-career path within the military and a cyber institute at West Point. Midshipman Zane Markel described the importance of flatter organizational hierarchies while maintaining some leadership in training to fight in future cyber wars. Suzanne Spaulding, Under Secretary in the Department of Homeland Security highlighted the impact of a “trust deficit” between the private sector and the government at a time when coordination is essential for developing effective policies to protect against cyberattacks. Presenters highlighted the fact that there are millions of intrusions per week, yet there are models for successful norm-setting and new policies based on reciprocity and information-sharing, as well as new linkages that conceptualize cybersecurity as a broad social concern to be addressed in a coordinated, multi-institutional manner.

5. The United States’ security capacity will increasingly depend on the ability to integrate capabilities and adapt to change. Lt. Gen. H.R. McMaster emphasized that American military power relies on the differential advantage provided by coordinated joint military power. Gen. Raymond Odierno cautioned that while it is essential to ensure technological leadership, the speed and proliferation of advances will limit the value and duration of specific innovations such that the military must become better at using technology, rather than seeking to simply possess the most up-to-date systems. King’s College professor Sir Laurence Friedman noted that there have been tremendous failures in basing ideas of future conflict on an analysis of the past, suggesting that unintended consequences are often as important as what is expected and that good strategy is about adaptation and flexibility.

6. Armed conflicts will involve hybrids of state and non-state adversaries. Conference participants suggested that armed conflict will increasingly link multiple state and non-state actors that blur traditional distinctions between war and peace and between conflict and crime. These include asymmetric wars, conflicts linked with organized crime, and complex global networks. New America President Anne-Marie Slaughter noted that the future of conflict is not only about whether wars will be fought, but why they will be fought. Stanford University historian and archaeologist Ian Morris suggested that we are seeing a transformation of the significance of the territorial state with multiple destabilizing consequences. Col. Troy Thomas of the National Security Council drew attention to the role of hybrid conflict in creating extended periods of vulnerability, often associated with the rise of identity politics in current and future conflicts. ASU engineering professor Brad Allenby highlighted the threats posed by “civilizational conflict” which involves complex contests within which physical violence may play a minimal role.

7. War will increasingly involve the private sector. Private companies have surpassed the defense industry in the development of the key pieces of technology used in war and are dominating the labor market for the best technological minds. Columbia University law professor Philip Bobbitt commented that the constitutional order of the modern industrial nation, upon which much of modern thinking on war is based may be devolving through outsourcing and privatization. Laura Dickinson, a law professor at George Washington University, suggested that the trend towards privatization of security and intelligence will impact the U.S. and other militaries and may also challenge existing conceptions of control and accountability.

8. Existing legal and political systems are unprepared for the changing nature of war and conflict. Changes in military technology, the individualization of war, rising global networks, and other changes threaten the relevance and efficacy of dominant interpretation of the laws of war. Georgetown University law professor Rosa Brooks suggested underlying trends may blur the line between war and “not-war” in a manner that extends far beyond the particular challenges of the “war on terror.” Syracuse University law professor William Banks and Duke University law professor Gen. (ret.) Charles Dunlap highlighted the challenges posed by the increasing role of non-state actors that lack reciprocal commitments under the laws of war. Harvard University law professor Naz Modirzadeh suggested that there are significant long-term risks of prioritizing short-term policy interests over established international law. Yale University law professor and former U.S. State Department Legal Adviser Harold Koh argued that Congress should “supersede and sunset but not silence” the prior Authorization for the Use of Military Force by passing a new specific and limiting law to address the campaign against ISIS and other threats, suggesting that prior justifications are inadequate and that a continued reliance on them poses a threat to appropriate policy and the rule of law.

9. Cities and megacities will play an increasing role in defining global security threats. The world is becoming more urbanized and its growing population is increasingly settling along the coasts. Admiral Michelle Howard, Vice Chair of Naval Operations, explained that future wars may take place in coastal regions and in the littoral zones and that speed and the ability to move in these areas will be increasingly important.

10. The invasion of Iraq will continue to loom large in the United States’ strategic thinking. The initial conventional military success of the Iraq invasion coupled with the disastrous consequences will continue to impact U.S. military planning and influence the global actions of various adversaries. Author and former advisor to Gen. Odierno, Emma Sky, explained that the sectarian conflicts plaguing Iraq and the Middle East are not the result of millennia old divisions but a response to the invasion of Iraq and a sign of significant unintended consequences. David Kilcullen, Lt. Gen. H.R. McMaster, and others highlighted the importance of an honest assessment of the U.S.’s recent experiences in Afghanistan and Iraq. Douglas Ollivant, former Director on Iraq in the National Security Council and a Senior ASU Future of War Fellow with New America, highlighted the significance of local historical interpretations of the U.S. invasion for the country’s future. Former mayor of Tal Afar Maj. Gen. Najm Ahed al-Jabouri, outlined the importance for the U.S. of learning from past successes and failures by combating ISIS, not only through formal military action, but with a hybrid force approach involving local tribal support.

11. Viruses, and diseases, both natural and man-made, as well as biological modifications will challenge international security. Risks associated with disease and pandemics as well as multiple aspects of synthetic biology will significantly influence global security. ASU law professor David Gartner considered how the Ebola outbreak represented a failure of surveillance as well as an inability to invest in recovery and solutions in the field, suggesting an area of significant potential threat. ASU law professor Gary Marchant suggested that while serious militarized biological threats may not be imminent, research is advancing especially in areas of new pharmaceuticals. Gaymon Bennett, ASU professor of anthropology, noted that rapid advances in biology are creating a growing disconnect between science and the possibility for potential harm, suggesting that biology needs an ethic to “do no harm” similar to medicine. ASU President Michael Crow and others discussed biological

modifications for soldiers and the profound ways in which, over time, the synthetic biology revolution may impact armed conflict.

12. Civil/military relations and existing military culture may stress the United States' capacity to address future threats. Many presenters drew attention to the social and institutional divisions between the U.S. society and the military, suggesting a lack of understanding and connection may present increasing challenges over time, while also pointing out divisions within military culture. Michèle Flournoy, former Under Secretary of Defense, discussed how cultural barriers within the Pentagon hamper collaboration with non-defense industries presenting a serious obstacle to achieving the adaptability required to keep up with fast moving technological developments. Duke University professor and former fighter pilot Missy Cummings explained how the military's traditional "warrior ethos" negatively impacted UAV pilots devaluing their work even as their role becomes ever more important. Janine Davidson, former Deputy Assistant Secretary of Defense for Plans highlighted the importance of ensuring adaptability, accepting that resolving conflict is not a rapid process, and removing dangerous myths from doctrine. Sen. John McCain suggested that a key barrier to innovation and adaptability are internal military systems, such as those used for acquisition, and that these and other issues must be addressed to enable improved preparedness and adaptability.

13. Climate change will shape the future of war. Vice Chair of Naval Operations Admiral Michelle Howard warned that as the world warms "it will create instability" noting that major disasters require a global response and that one could foresee a future where a growing share of resources must be spent on disaster response. Presenters considered the security impact of rising sea levels and corresponding mass displacement, the risks of extreme weather, and the potential for multiple environmental impacts.

14. Big data and mass surveillance will challenge civil liberties and human rights and play a growing role in future conflicts. Data collection and information analysis have always been part of warfare, but the world is now undergoing a data transformation in which more and more data can be collected and analyzed with increasing ease. ASU professor Daniel Rothenberg suggested that these processes present significant threats to human dignity, a core human rights, which has yet to be fully acknowledged.

15. Interstate war will remain rare, elements of global violence may decline, but armed conflict will retain many of its core qualities. There are few interstate wars and this mode of conflict will likely remain infrequent, as many elements of overall violence decline. Harvard University psychology professor Steven Pinker explained that violence in human society, including the organized violence that is war, is in a state of steady and significant decline. Nevertheless, armed conflict continues at great human cost creating profound harm and suffering. ASU President Michael Crow suggested that rather than imagining that we will see an end to war, we need to prepare for resolving conflict and avoiding war when possible. Lt. Gen. H.R. McMaster warned against the idea that future wars will be fast, cheap, and efficient, arguing that it is important to understand its unchanging quality as a political contest of human will, reminding the audience that people fight today for "the same reasons that Thucydides identified 2500 years ago – fear, sense of honor, and interest."

