
Introduction

Symposium on Drones

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CHRISTOPHER J. COYNE

Unmanned aerial vehicles (UAVs) or unmanned aerial systems (UASs), more commonly known as drones, are aircraft controlled remotely or autonomously via computer without a human pilot. Like past innovations, drone technology offers significant potential benefits through various commercial uses. At the same time, this technology makes governments more efficient at intervening in other societies and engaging in death and destruction. The four papers in this symposium explore the use of drones in the commercial and military contexts and engage various issues and tensions in each context.

The U.S. Federal Aviation Administration forecasts that the number of drones employed for commercial use will increase from 42,000 in 2016 to more than 420,000 in 2021 (2017, 32). Commercial drones are already being used in fields such as aerial photography, construction and industrial inspections, real estate, and agriculture. The future holds further possibilities for the use of drones, such as the delivery of goods and the expansion of Internet access to remote communities. The commercial use of drones raises a host of issues related to air safety, privacy, and liability. The first two papers in the symposium address some aspects of these issues.

Ryan Hagemann begins with a consideration of the consumer privacy issues associated with the use of drones. His paper reviews the current U.S. legal and regulatory structure governing privacy and then considers how it relates to drones. He emphasizes the different types of data that might be acquired for commercial purposes and the difficulty of predicting all the different ways that drone technology will be used

Christopher J. Coyne is associate professor of economics in the Department of Economics at George Mason University and co-editor of *The Independent Review*.

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and how these uses will affect individual privacy. A key theme of his essay is that the privacy issues he addresses are not unique to commercial drones. Therefore, he argues, it is important that rules remain technology neutral instead of technology specific. Ultimately, the rules—both formal and informal—that end up governing commercial drone usage as they pertain to privacy will emerge from the interactions of private citizens, private companies, regulators, and the courts.

Randall Holcombe considers the rules governing airspace to avoid conflicts between manned and unmanned aircraft. He argues that rules need to be flexible to incorporate not just existing aircraft but also future aircraft as technology continues to evolve. He proposes a simple rule change—mandating that drones be responsible for avoiding all other aircraft, both manned and unmanned. The collision-avoidance technology necessary to fulfill this mandate already exists, and Holcombe discusses how it might be used to prevent accidents between aircraft. Most importantly, he notes how existing technology offers the possibility of shifting from a top-down air traffic control system to a bottom-up decentralized system for coordinating air traffic of both manned and unmanned aircraft.

The next two essays address issues with the use of drones by the U.S. military. The U.S. government has for decades been involved in developing drone technology for military purposes. This involvement can be understood in three distinct phases (see Hall and Coyne 2015 for more detail). The initial phase, which corresponds to the two world wars, was characterized by the use of drones for military-training purposes. In this phase, drones were not used as a direct instrument for projecting state power abroad. In the second phase, which corresponds with the Cold War and runs through the 1990s, the use of drones was expanded to include surveillance. During this phase, drone technology gathered intelligence for the effective projection of state power in foreign territories. During the most recent phase, which corresponds with the U.S. government’s “war on terror,” the use of drones has evolved further. Drones continue to be employed as a tool of support for military operations—for example, surveillance, the targeting of physical infrastructure, and so on. But they have also been institutionalized as an offensive tool for exterminating human targets. This expanded use of drones by the U.S. government raises a host of ethical, legal, and practical issues, as explored in the final two papers in the symposium.

Milena Sterio traces the U.S. government’s use of drones to conduct targeted killings from the George W. Bush administration through the Trump administration. She considers the use of drones in light of domestic, international, and human rights law and argues that the U.S. government’s drone program raises critical issues in all three areas. A central theme of her paper is that a complete assessment of the drone program under each area of law is impossible given the covert nature of the U.S. government’s activities. Another key theme is that the lack of effective oversight of the use of drones threatens human rights and individual freedoms, both at home and abroad, because of the significant amount of unchecked power concentrated in the executive branch.

Finally, Abigail Hall and I explore a tension in the use of drones to combat terrorism. The U.S. government justifies drones as an efficient method for weakening and ultimately

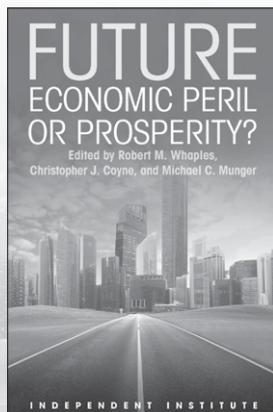
ending the threat of global terrorism. Drones, however, create terror among foreign populations. Drone strikes may annihilate specific targets, but they do not eliminate terror, which is instead propagated by the U.S. government's drone program. In response, it might be argued that exporting terror is preferable to U.S. citizens experiencing terror at home. We emphasize that this response undermines the strong claims made by U.S. officials that the purpose of the war on terror is to eradicate global terror. Moreover, it assumes that the use of drones by the U.S. government reduces the likelihood of domestic terror in the United States. We offer reasons why this assumption may be inaccurate.

The commercial and military use of drones will remain relevant for the foreseeable future. The papers in this symposium engage some but not all of the issues associated with the use of drones in these contexts. They are intended to begin a conversation about the benefits, costs, and tensions of employing drones and the various ways this technology can enhance or erode the freedoms and well-being of individuals around the world.

References

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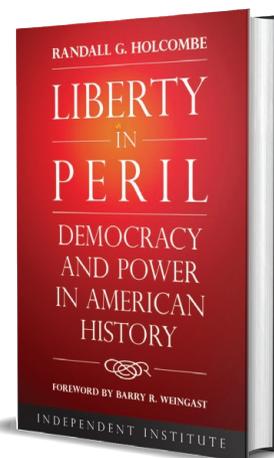
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