education, guided self-development, technology-abetted educational tools, and specialized elite programs to generate this edge. The themes he identified resonate with the Joint Chiefs' vision for professional military education and talent management and should be of interest to the Office of the Secretary of Defense and the Joint Staff, as well as the Service Chiefs and their learning institutions.

War Transformed is a rather ambitious project that asks the right questions, and Ryan offers numerous answers and recommendations as well. They are stated in generic terms, appropriate for a global audience, leaving the readers to apply the proposals to their own specific national contexts. Readers may not agree with all of Ryan's recommendations, yet he invariably frames the most critical issues and provokes his audience to join the debate. He offers a sober glimpse into the future, which will most certainly be a challenging era for the profession of arms.

War Transformed is strongly recommended as a guide to improve one's ability to navigate our uncertain future. Not everyone is a "surf rider," but this book will stretch minds and force readers to reassess longstanding assumptions and dated ideas. Its strength is in its synthesis of the ideas of many others, which makes *War Transformed* comprehensive and an excellent foundation for a security studies course. Supplemented by key articles for greater depth on competing ideas or specific technologies, it would be a superb text for a class on the changing character of warfare at either the undergraduate or graduate level. The issues collectively raised in *War Transformed* represent the cognitive challenge of our times, highlighting the need to change and to wisely assess the options before us. **JFQ**

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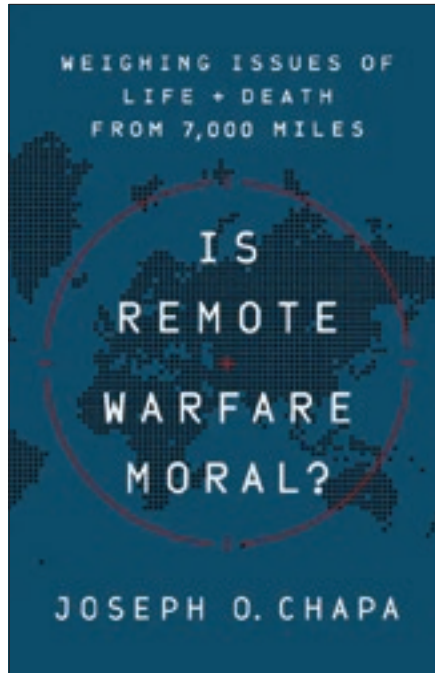
Is Remote Warfare Moral? Weighing Issues of Life and Death From 7,000 Miles

By Joseph O. Chapa
PublicAffairs, 2022
288 pp. $29.00
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Reviewed by Christopher Kuennen

When I explain the difference between the Services to new Air Force officer candidates, I occasionally joke that, if it came down to it, the Army could do its job with rocks, but the Air Force could not. My point is to emphasize the essential role of modern technology in the air domain, to overcome both the force of gravity and tyranny of physical distance. Warfare from a distance, of course, is not the exclusive purview of any single Service. And likewise, the lessons of Joseph O. Chapa's *Is Remote Warfare Moral? Weighing Issues of Life and Death From 7,000 Miles* are applicable beyond the remotely piloted aircraft (RPA) community upon which he focuses most of his attention. For a joint force charged with fighting from a distance—competing across oceans, planning against adversaries' anti-

access/area-denial threats, and employing artificial intelligence (AI) to make rapid sense of complex situations a world away—Chapa's book constitutes an important advance in the professional ethics of remote warfighting.

Is Remote Warfare Moral? is unique among comparable works in that its author is both a trained philosopher and a veteran of remote combat. Lieutenant Colonel Chapa, currently an Air Staff officer at the Pentagon, is also a rated RPA pilot and holds a Ph.D. from the University of Oxford. Chapa's unique perspective is inextricable from his exploration of the ethics of modern remote warfare. Indeed, his book often reads as a defense of the moral capacity of RPA operators, who have been alternatingly stereotyped as treating war like a video game or else suffering from crippling post-traumatic stress disorder. Ultimately, however, Chapa's firsthand professional experience and subject matter expertise help him draw ethical insights from our nation's use of the MQ-1 Predator and MQ-9 Reaper that are relevant to broader questions about the role of human judgment in all forms of remote warfare, from missile defense to offensive cyber operations.

The first of these insights is presented as a response to claims that remote violence is incompatible with just war and thus that the idea of a professional "remote warrior" is oxymoronic. Chapa insists on defining war as a sometimes justified, though always tragic, defense of some political community. The moral uprightness of responding to an unjust threat lends license for lethal force to certain members of the community. It follows that the qualities that make these individuals good warriors should be defined by whatever the defense of the common good demands. The martial virtues — traditionally identified with courage, loyalty, and honor — thus rightly differ in practice between the Union infantryman at Gettysburg and today's MQ-9 sensor operator, even as both fight justly against an unjust threat.

The second major insight in *Is Remote Warfare Moral?* is Chapa's development of what he calls the *judgment*

gap: "the distance between the point of application of human judgment and the effects of that judgment." Remote warfare has been criticized for distorting situational awareness and imprudently placing life-and-death choices in the hands of decisionmakers far from the nuanced subtleties of any combat zone. While Chapa acknowledges the inherent limitations of ordering kinetic effects from the other side of the world, he also points out that RPA operators have some important decisionmaking advantages over fellow combatants. For one thing, operating with reduced personal risk could actually make it easier to weigh the demands of a tactical situation against ethical norms and strategic priorities. For another, modern RPA operations give crews not only intimate awareness of the battlespace, but also the final decision about employing lethal force in that battlespace—all in virtually real time. That is, although the physical distance between RPA crews and their targets is large, the judgment gap is small.

Chapa offers multiple examples of RPA operators relying on their unique perspective and ultimate decisionmaking responsibility to push back against morally (and strategically) questionable requests from supported units on the battlefield or behind desks in an operations center. Although these examples may surprise those who consciously or subconsciously think of remote warriors as mere "gamers" or disempowered cogs in a machine, others will find Chapa's description of the judgment gap to be a helpful hermeneutic for conceptualizing the value of in-depth operator situational awareness. The major insights of *Is Remote Warfare Moral?* can help us appreciate Chapa's RPA anecdotes beyond their individual particularities, as highlighting the criticality of informed human judgment in distributed, technologically mediated warfighting.

In his final chapter, Chapa addresses the ethical outlook for future remote warfare and notes how AI-powered semiautonomous systems could widen warfighting judgment gaps. This is an issue begging to be explored in more detail. If *Is Remote Warfare Moral?* has

any notable weakness, it is its often narrow focus on looking back at ethical lessons learned over two decades of Air Force RPA employment at the expense of considering in more depth how these lessons might be applied across the spectrum of remote warfare. Chapa imagines a future conflict in which "cyber warfare operators might engage the adversary from Fort Meade . . . bomber crews will use standoff weapons—AI-enabled, air-launched cruise missiles—rather than penetrating heavily defended enemy airspace . . . [or] perhaps fighter pilots will remain at a safe distance while sending swarms of autonomous loyal wingmen, or drones, forward to conduct the air-to-air fighting." Although Chapa's insights about the martial virtues and judgment gap are well articulated and sufficiently generalizable, it might have been worthwhile to explore how, for example, a cyber operator would perform the kind of moral deliberation Chapa describes RPA operators performing today.

Under the assumption that such explorations will be carried on elsewhere, let me then reaffirm here what Chapa does have to say about the future. The martial virtues are whatever qualities of character empower Servicemembers to effectively combat unjust threats to the political community. At the same time, remote warfare need not impose a major judgment gap on human decisionmaking in conflict. As our military relies more and more on AI to confront the challenges of fighting from a distance, Servicemembers must be prepared—technically and ethically—to make their judgments count.

They might start by asking, *Is remote warfare moral?* **JFQ**

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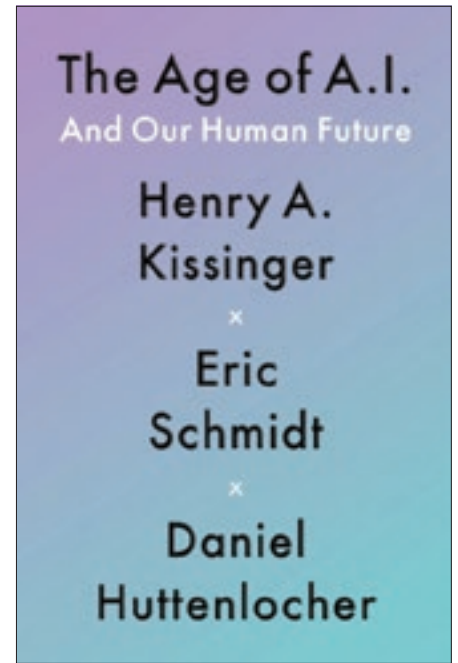
The Age of AI: And Our Human Future

By Henry A. Kissinger, Eric Schmidt, and Daniel Huttenlocher
Little, Brown and Company, 2021
272 pp. $30.00
ISBN: 9780316273800

Reviewed by John W. Sutherlin

To fully appreciate *The Age of AI: And Our Human Future*, one must overlook its nebulous description of a decades-old issue and suspend any expectations for a well-researched and thorough account of this vital topic. The authors, who represent major policy, industry, and academic heavyweights, stumble in their attempt to raise awareness and often fail to provide meaningful insights. The analysis and research manifested here leave so many things unanswered. In the end, many will ask themselves why they selected this book out of the choices currently available. This is not a typical Kissinger work spanning 800 or more pages with thousands of sources and infinitely quotable passages exhibiting personal perceptions and a vast foreign policy knowledge. Further, this is not a Schmidt work of