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Artificial Intelligence and Data Biases: What Aristotle Can Teach Us

by John P. Ringquist and J. David Thompson

The runaway trolley problem is a common thought experiment in ethics curricula.¹ In it, a trolley will run over five people tied to the track unless you pull a lever to divert it to an alternate track, where it will kill one person. The scenario invites students to analyze absolute prohibitions against killing innocent individuals, utilitarian calculations that maximize overall good, and the doctrine of double effect, which holds that an action should be judged by what is intended rather than what is merely foreseen, assuming just means.

Now imagine the trolley problem in the contemporary era. Instead of pulling a lever, you design an artificial intelligence (AI) model that determines which track the trolley takes. Does the fact that you “only” designed the model relieve you of all moral responsibility for who is run over? Surely, it does not. Those who build and design AI models bear moral responsibility for what these models produce. Further, those who employ AI models must understand how these tool shape ethical decision-making.

AI has become increasingly embedded in military decision-making, from targeting assessments to risk management and beyond. Ethical discussions surrounding AI in military operations have largely focused on respect for individual rights, transparency in data use, accuracy and integrity of the data, bias mitigation, compliance with the law of armed conflict, responsibility for decisions, and attention to broader implications. The Center for Army Lessons Learned (CALL) Commander and Staff Guide to Data Literacy reflects these concerns. It emphasizes, for example, that “data collection efforts are conducted for clear purpose and within the boundaries of legal and moral frameworks,”

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“maintaining transparency to the extent possible fosters trust and accountability,” [m]isleading or incomplete data can lead to flawed conclusions,” “data is subject to biases,” “ethical use of data extends to the principles of proportionality and discrimination,” among other points.² These are important themes, and many authors have offered valuable insights for the responsible use of AI.³

Yet, a further problem has received less attention: AI systems that obfuscate how they generate recommendations pose an ethical threat not only by potentially producing incorrect decisions, but also by eroding practical wisdom (*phronesis*) through moral deskilling. In doing so, they weaken the exercise of virtuous military judgment. Much of the existing literature treats AI as a tool whose moral significance lies primarily in the correctness of its output.⁴ This article instead examines how AI may formatively influence the human decision-makers who rely on it. It focuses on the erosion of practical wisdom and the consequent weakening of virtuous military judgment.

This article argues that an ethical risk posed by AI-enabled decision support systems (AI-DSS) within the military context lies not only in algorithmic biases or unethical outcomes, but also in the gradual erosion of human judgment. When commanders and staffs repeatedly defer to AI, especially under time pressure and in conditions of uncertainty, AI systems may weaken their judgment. Even when AI improves accuracy or reduces bias, it can simultaneously foster new forms of moral deskilling by habituating users away from exercising practical judgment. To address this lacuna, this article employs Aristotle’s virtue-ethical framework, with particular emphasis to *phronesis*, or practical wisdom. For Aristotle, ethical action does not arise solely from rule-following or technical proficiency (*technē*). It emerges from experience and deliberation. It is irreducibly human, context-sensitive, and cultivated through

practice. From this perspective, the central question is not whether AI systems make “better” ethical decisions than humans, but whether they preserve and strengthen the commander’s ability to perceive what is morally salient and make an ethical decision under uncertainty.

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By reframing AI ethics through Aristotelian virtue, this article contributes to debates about autonomy and human control in three ways. First, it shifts ethical analysis from outcomes to the processes that cultivate moral agency. Second, it highlights moral deskilling as a distinct and underappreciated aspect of AI integration. Third, it argues that AI integration in a military context ought to facilitate, rather than replace, the development of practical wisdom. In war, responsibility cannot be delegated to machines, and moral errors carry grave consequences. The character of decision-makers remains as ethically significant as the tools that support their decisions.

AI is, to be sure, a tool to make more data-informed decisions. It can process and synthesize information faster than humans and enable more iteration. It offers significant promise, and this article does not argue against its use. Rather, it contends that AI should help cultivate, not diminish, the practical wisdom of commanders and staffs. To make this argument, this article proceeds in four steps.

First, it reviews cognitive biases and AI within a military context. This section outlines different forms of bias and explains AI’s role as a decision-support system. Its core claim is that AI does not merely reflect bias; it reshapes how humans deliberate. Second, the article reviews Aristotelian ethics on *phronesis*. Character is formed through repeated action, and virtue

is a stable disposition. *Phronesis* concerns particulars more than rules and therefore requires the perception of morally salient actors. It cannot be routinely outsourced without weakening one's moral analysis. Third, the article presents how the Israeli Defense Forces (IDF) used AI to accelerate decision-making during the war in Gaza. It would be beyond this article's scope to provide any thoughts about potential moral deskilling of the leaders involved, and the result of the targeting has been well-documented elsewhere. Instead, these examples are used to highlight the fact that militaries used AI to accelerate target recommendations and decisions. Decisions that have historically been made by humans in minutes and hours have been outsourced to machines, who accelerated the decision-making cycle to seconds.

Moral agency remains a human endeavor and professional military education must ensure that training with AI also includes training against overreliance.

Even if AI improved outcomes by reducing bias, it can still produce moral deskilling if it bypasses or truncates human deliberation. Here, Aristotle's concept of *akrasia*, "weakness of will," becomes especially important. While AI may optimize speed, efficiency, and engagement, it can also encourage ethical shortcuts that undermine command judgment. The case study examines how the speed of modern combat demands snap decisions and a human in the loop to prevent violence against non-combatants. When the decision to launch attacks rests in the analytical functions of an AI based on sensor data, a human is an essential part of the targeting process. Fourth, the article contrasts the existing AI ethics literature, which tends focus on outcomes and compliance, with the proposed focus on deliberative judgment and habituation effects. It outlines the implications

for professional militaries: responsibility cannot be outsourced to machines. Moral agency remains a human endeavor and professional military education must ensure that training with AI also includes training against overreliance.

One might ask what Aristotle can teach about AI. This article uses Aristotle's virtue ethics to foreground moral philosophy rather than technology. One might also suggest that bias is an empirical, not ethical, issue. Bias can indeed be understood empirically, as systematic deviations in data that can be identified and mitigated through improved statistical methods. However, the authors contend that biases also shape the conditions for moral agency. They can perpetuate and amplify unfair or disproportionate outcomes, thereby eroding trust and legitimacy. AI can help reduce bias, and the authors acknowledge and affirm this contribution. Yet the authors argue that bias reduction must serve, rather than substitute, the cultivation of *phronesis*.

Cognitive Biases and Military Targeting

The *Commander and Staff Guide to Data Literacy* published by the Center for Army Lessons Learned (CALL), identifies seven biases: selection, historical, measurement, cognitive, reporting, algorithmic, and automation. Commanders and staffs may unknowingly favor certain biases that impact their recommendations and decisions.⁵ Similarly, those designing or working with AI models may unwittingly incorporate these biases in the design or build phases. Army doctrine warns that individuals need to guard against biases.⁶ Failure to mitigate biases can be a form of counterproductive leadership, resulting in a loss of trust.⁷ Toward this, strategic leaders need to move beyond biases to view the environment objectively.⁸ Therefore, it is necessary for staff officers to present the commander with unbiased information.⁹

Algorithms can be designed in a way in which the functions and deployment may be based on flawed data or incomplete design. AI systems need to be lawful by design: it must factor in legal restrictions, account for oversight, and support human-in-the-loop (HITL) decision-making approaches. HITL ensures humans audit and correct AI model decisions and data biases that algorithmic approaches may miss in the mass of training data the AI uses to inform decision-making.¹⁰ AI models train on data. Larger data sets provide more information from which to create solutions and discern variation.

Bias can originate from several factors in the creation and employment of an AI model. The model may be trained with data that skews toward a certain cultural or societal perspective. Designers may provide data that forms the basis for pattern recognition that contains personal or cultural bias. The algorithm that governs how the data is organized for operations is also a factor. It is important to understand how the AI was trained to determine if there is bias resulting from how the individual training the model may have reinforced bias through data training and cycles of data acceptance and rejection. Finally, design is a factor. Initial design and mission may change, and the AI may require new training to enable it to adapt. If a model does not have proper data, it may develop transfer-context bias when used outside of its intended context. One operational example of this bias is an AI trained on a rural environment but is later used in an urban context without data being retrained.¹¹ Although data can be the foundational factor for AI performance, bias can skew performance. When one set of data training is combined with an unfamiliar environment, AI performance could be negatively affected. A human partner could be the decisive factor in targeting decisions. Further a human could help counteract bias-driven escalation, and ensure autonomous weapons systems stay oriented on legitimate, permissive targets.

The second dilemma concerning AI-DSS is control, especially if it guides weapon systems such as autonomous weapon systems (AWS). The control necessary to coordinate AI-guided weapons platforms, as well as the use of AI for operational functions in headquarters units, expands the potential for operational risk. Although it is expected that AI guiding an AWS will do so within the parameters of its training and instructions, there is no guarantee that in the course of its mission the AWS will not be damaged in a manner that affects its physical structure. Weather effects are an obvious form of

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unforeseen impacts on an AI-guided autonomous system. Hail, sand, rain, and lightning can degrade optics or damage electronics, so can the unanticipated impacts of extreme heat or cold on autonomous systems. If a damaged machine with a degraded AI is employed for a mission, the need for a HITL that can terminate a defective or damaged system is imperative. Further, machines that depend on guidance systems, such as those using global positioning systems (GPS) and AI, can be damaged by electronic warfare.

The AI in AWS can also be affected by errors in coding or unintended conclusions in its logic. Errors of these types could lead to a cascading set of actions that fail to meet the commander's intent and may violate the concept of lawful by design.¹² When the potential for AI failure or a defective autonomous weapon system is multiplied across multiple domains and by orders of magnitude, human control is essential. Human intervention is necessary to avert any potential actions that would violate ethical standards in war.

One key aspect of control on future battlefields is the integration of AI in command-and-control functions. The modern data-driven

battlefield is a crowded space that challenges commanders' cognitive bandwidth with competing data.¹³ AI can help commanders manage data through data analysis and organization, prioritizing of outcomes and impacts, and ultimately offering diverse courses of action that accelerate the pace of decision making and operational tasks.¹⁴ However, AI cannot make up for the information asymmetry. Commanders at different echelons may have access to different amounts of data, along with different AI agents to help guide and analyze data for staffs to process. While AI can help with the data load as it is processed for operations, the routing of critical data to different echelons may provide AI agents with insufficient data for decision-making. In an environment when seconds count, a human can fill data gaps with discernment and assume risk where they have experience that the AI may not be able to synthesize from data.¹⁵

Data bias and trust are factors that help shape decisions about how to integrate AI into decision-making processes.

Data bias and trust are factors that help shape decisions about how to integrate AI into decision-making processes. Some studies claim that humans are overly trusting of computer-based decision support systems.¹⁶ Humans exhibiting an automation bias may prioritize machine recommendations over data from other sources. In time critical situations data bias may be exaggerated by humans experiencing “data overload” and the need for a timely recommendation over a more detailed verification process.¹⁷ The war in Gaza showed how AI shapes the modern battlefield's operational tempo through its incorporation as a full partner in decision-making. The ethical challenges and employment of AI models in this

conflict will be formative for future conflict. Yet, this implies that the human has practical wisdom gained through experience and reflection.

Aristotle's Moral Philosophy on Practical Wisdom

Ethically assessing AI-enabled decisions in the military must begin with a clear account of human agency. Aristotle's virtue ethics grounds ethical action not in rules or outcomes but in the character and judgment of the decision-maker. Practical wisdom (*phronesis*) is central to this framework. It is the intellectual virtue, beyond understanding and knowledge, that enables agents to deliberate about what ought to be done in particular circumstances. For Aristotle, ethical action is not merely a matter of following rules or producing the best outcomes. It requires cultivating the capacity to perceive, judge, and choose rightly. Virtue is, therefore, a matter of character.

Aristotle distinguishes two types of wisdom: *phronesis*, or practical wisdom, and *sophia*, or philosophical wisdom concerning universal truths. He further separates technical skill (*technē*) which concerns production according to fixed rules. In discussing *sophia* he notes, “we say that they know things that are remarkable, admirable, difficult, and divine, but *useless*; viz. because it is not human goods that they seek.”¹⁸ The wise person must possess both intuitive reasoning and scientific knowledge. Of the two, though, Aristotle maintains that practical wisdom must be controlling.¹⁹ It is this practical wisdom that concerns this article. The wise commander must deliberate about what is good and just for the mission and the organization. AI can function as a tool that informs deliberation, but it cannot replace the commander's final judgment.

Aristotle describes virtue as a state of character guided by *phronesis*, finding the mean between extremes and enabling excellence.²⁰ Character develops by habituation rather than innate disposition. “For the things we have to

learn before we can do them, we learn by doing them. [...] [W]e become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts.”²¹ Character is formed through repeated practice and deliberation. In the military, professional judgment develops over time through training, exercises, and reflection. Crucially, habituation occurs whether one engages in deliberation purposefully and reflectively or outsources it to an external tool. Repeated patterns of deference shape character as much as repeated acts of independent judgment. Character is thus a habit formed through repeated actions. If individuals habitually outsource deliberation, they risk deskilling their practical wisdom. Conversely, if they routinely ignore tools that could improve decisions, they may lack prudence, one of the cardinal virtues (the others being wisdom, courage, and temperance).

Practical wisdom involves deliberation about what is good and prudent considering the particulars of a situation. “We deliberate not about ends but about means.”²² This deliberation cannot be reduced to rule following as it requires sensitivity to morally salient information that cannot be fully specified in advance. Practical wisdom is concerned with particulars because it must guide action.²³ This seems especially true in military contexts, where decisions must be made under time pressures, with incomplete information, and competing goods. The commander with *phronesis* applies doctrine and guidance within the strategic and operating environments given practical experience. This interpretive judgment is what distinguishes command from mere compliance.

Practical wisdom is inseparable from moral virtue. One cannot deliberate well about what is good without proper orientation toward the good. “The end, then, being what we wish for, the means what we deliberate about and choose, actions concerning means must be according to choice and voluntary. Now the exercise of virtues is concerned with means.”²⁴ The integration of

reason and character underscores why ethical judgment cannot be outsourced without risking moral deskilling. The moral agent deliberates over alternative courses of action in specific situations. Aristotle acknowledges the role of external circumstances yet insists that “it is absurd to make external circumstances responsible and not oneself.”²⁵ A system that produces technically sound decisions may still bypass the very process necessary for the exercise of moral judgment. Choices, therefore, reflects rational desires, aligning reasons and motivations.

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In military decision-making, responsibility cannot be delegated to a machine. Decision-support tools may inform judgment, but they cannot replace deliberation. Army doctrine states that situational understanding requires “collective wisdom and judgment, often under demanding, chaotic circumstances, to discern what is actually so.”²⁶ It further notes that strategic leaders use “experience, wisdom, and conceptual abilities” to exercise sound judgment across multiple, simultaneous challenges.²⁷ Technology can help manage complexity and improve organizational performance. The Army recognizes that proper integration of technology can increase operational effectiveness, survivability, and lethality.²⁸ Yet, despite better decision, it may ultimately deskilling the organization if members routinely outsource deliberation without reflection. From an Aristotelian perspective, the ethical danger of AI as a decision-support tool lies less in the assistance itself and more in the habituation of unreflective acceptance.

This underscores the importance of another Aristotelian concept: *akrasia*, or “weakness of

will” or “lacking mastery.” A central temptation with AI-DSS is to default to the rapid, technically correct decision that AI models may generate. This prioritizes immediate results over the long-term cultivation of judgment. Aristotle observes, “The man of practical wisdom, they sometimes say, cannot be incontinent, while sometimes they say that some who are practically wise and clever are incontinent.”²⁹ One might therefore ask whether the person who uses AI to achieve better outcomes behaves incontinently. Aristotle treats incontinence as stemming from incorrect opinions rather than desire alone. This suggests that bypassing deliberation does not merely risk error; it weakens the agent’s capacity for disciplined judgment and reflection over time. Repeated reliance on outsourcing decisions can train dependence.

...Aristotle’s virtue ethics offer a framework for analyzing the formative influence of AI on human judgment.

In summary, Aristotle’s virtue ethics offer a framework for analyzing the formative influence of AI on human judgment. Virtue is cultivated through habituation, and practical wisdom arises from deliberation. A system that diminishes these processes risks deskilling the moral agent’s active decision-making, even if it improves outcomes. An Aristotelian approach thus evaluates the ethics AI-supported decisions not only by their results but also by their effects on moral character and judgment, particularly for military professionals.

Official Military Policy and Examples of Recent AI Guided Targeting

National policy constrains the role of AI on the battlefield. Lawful war is waged with rules and an acceptance of what is legal and moral. AI is the product of its algorithm, the

data used to train the model, and the parameters of its deployment. The United States accepts the role of AI in war and regularly refines plans for its employment. Whether as advisor, analyst, or target acquisition platform, AI models are advancing in parallel with military transformation.³⁰ Autonomous weapons and analysis models are currently on the battlefield and are not going away.

The United States government does not support a total ban on lethal autonomous weapon systems (LAWS). The foundational document that outlines the DoW policy for the employment of autonomous weapons is Department of Defense Directive (DODD) 3000.09, *Autonomy in Weapons Systems*, first published in November 2012, and updated frequently as technologies and AI capabilities have advanced. The directive emphasizes that autonomous and semi-autonomous weapon systems will be designed to allow for human judgment over the use of force. Therefore, it does not constrain commanders but delegates the ability to choose the appropriate levels of human judgment over the use of autonomous weapons. One key provision is that humans do not have to exercise manual control of the weapon system but retain decision authority on weapon employment parameters. This includes “appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement.”³¹ Recognizing the need for regular review and continual training, *Autonomy in Weapons Systems* provides specific training requirements: regular training for operators, reliable and scalable human-machine interfaces, doctrine, and realistic operational testing to ensure the systems are prepared for adaptable decision-making processes.³²

A March 2018 white paper, *Humanitarian Benefits of Emerging Technologies in the Area of Lethal Autonomous Weapons*, conceptualized them as part of a new generation of weapons that

would enable automated targeting, tracking and engagement while ensuring the weapons struck military targets and lowered risk of civilian collateral damage.³³ LAWS are a potential for warfare to be conducted with greater precision and fewer non-combatant casualties compared to prior generations of “dumb” bombs or artillery. Importantly, though, the responsibility and authority for lethal strikes in *Autonomy in Weapons Systems* remained with humans.³⁴ However, since 2018 the evolution in AI and its employment in weapons systems has created an argument for greater autonomy that minimizes the flaws that remain in the AI agents that are expected to determine the priority and validity of potential targets.³⁵

The United States DoW AI strategy provides insight into how AI can be expected to be utilized in the future battlefield. The DoW strategy specifically mentions that AI will be used for “battle management and decision support, from campaign planning to kill chain execution.”³⁶ AI in the kill chain is an important evolution in its intended use. The United States Air Force defines the kill chain as: “[I]dentifying targets (Find), fixing their location (Fix), tracking them (Track), engaging with appropriate weapons (Target/Engage), and assessing the effects (Assess).”³⁷ The joint force is expected to mesh systems and layer effects to conduct operations across the Joint All Domain Operations space. However, the kill chain can be a time-consuming process and can fail if broken.

The DoW strategy will go beyond the kill chain with AI in the planning process. Unlike the kill chain that follows a series of sequential steps starting from target identification and culminating in target destruction, a kill web will utilize multiple systems. AI may be used in the decision-making loop because the kill web is also associated with distributed command and less centralized decision making. The kill web concept strives for flexible and resilient nodes across the joint force, and integrates

nodes of the kill chain into a flexible decision-making network that is resistant to disruption.³⁸ As humans use more AI in the evolution of kill chains into kill webs that operate across operational domains, the number of interactions and decisions that the system will be required to perform will multiply and increase in complexity. Eventually, complexity may blur the distinction between human and machine decision-making.³⁹ The implications for the conduct of war and the role of humans in decision-making are important, especially as time constrained tactical or strategic decisions may require operational execution decisions in a matter of seconds, not

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hours. Recent combat operations in which AI has been cited as an important decision-making and targeting tool present observers with multiple ethical dilemmas.⁴⁰ The use of Maven AI by the United States in its war against Iran in March 2026 shows that compared with prior human-led campaigns against ISIS, the scale and speed of target execution in Iran measured in seconds or minutes versus much slower past techniques.⁴¹ In 2025 the goal was for 1,000 decisions to be made per hour for targeting selection or dismissal.⁴² Before Iran in 2026 however, Israel employed AI in Gaza, to find, fix, and finish suspected militia targets.

Unlike the debate over policy or bias, the recent use of AI for planning, targeting, and the creation of sustainable warfighting kill chains or kill webs demonstrates how AI is being (or has been) developed for lethal operations. The integration of AI algorithms to facilitate decision making happened in Gaza where AI tools were an integral part of Israeli attacks

against suspected militants. The evolution from biometric border controls, facial recognition, and pattern analysis, to target identification and lethal action demonstrates how the kill chain and the kill web operate. In some cases, the application happens in a linear matter; in others, the whole of the Israeli military and intelligence ecosystem is brought to bear.

The war in Gaza provides an example of how AI is changing the character of war from one in which humans hold the ultimate authority to take life, to war in which algorithms recommend legitimate targets within the limits of their training. The Israeli Defense Forces (IDF) used biometrics in the past, but by combining data from multiple systems, its models guided drone strikes. In Gaza the debate over proportionality and discrimination informs the justifications for questioning modern targeting methods that utilize AI.⁴³ Ben Saul, an international law professor and UN Special Rapporteur on Human Rights and Counterterrorism believes that overreliance on AI leads to a system

compiled personnel data for targeting, and “Where’s Daddy?” tracked suspected militants to their homes which were bombed after they entered.⁴⁶ The process of employing the IDF AI-DSS has proven highly controversial. Press and activists including +972, an Israeli-Palestinian news organization, are making accusations that the process is subject to more than bias, it is becoming overwhelmed by the pace of war and decision-making within a highly politicized operational environment.⁴⁷

The application and imbedding of AI agents into the Israeli targeting process to form AI-DSS was made before the 2023 Gaza War, a product of staff processes intended to facilitate swift engagement and avoid “human decision-making bottlenecks.”⁴⁸ The Israeli use of Blue Wolf, Lavender, Gospel, and “Where’s Daddy?” to find, fix, and finish targets has been questioned on measures of proportionality and legality and possibly as a violation of international humanitarian law.⁴⁹ However, accusations are often overgeneralized and lack clarity on how these AI are used as decision support tools and not the final arbiters of decisions that remain in human hands.⁵⁰ The IDF, by integrating AI into the targeting process, accelerated target acquisition and identification.⁵¹ By late 2023 the AI-DSS was generating results that were being treated as decision recommendations for lethal effects in a period of twenty seconds or less. The main discriminator, and an indicator of bias, was the recommendation if the individual was male. This came despite an environment where recommendations could be difficult, and, according to IDF intelligence officers, the process reputedly had a ten percent error rate. This was within the context of an estimated 37,000 identified target list that was embedded in an urban terrain that was vulnerable to additional damage and non-combatant involvement.⁵² The risk of non-combatant deaths and the error rate are key factors for consideration when AWS are debated. AI is not foolproof. It does not offer

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that uses AI to acquire and assess targets, but employs unguided and imprecise munitions to destroy them.⁴⁴ When considering discrimination and precision munitions, precision is difficult to guarantee with large munitions such as 500-pound to 2,000-pound bombs that may have a lethal radius of hundreds of meters.⁴⁵

Modern targeting fully integrates AI into the process from identification and location to final verification and target engagement. The IDF used four primary AI systems: Blue Wolf helped with image recognition, Gospel identified and marked buildings as militant bases, Lavender

a 100 percent solution for targets, especially when targets may defy pattern analysis or the limitations of algorithms. Towards this, other IDF AI-driven systems with connections to the targeting process do not have a direct connection to the authorization of lethal effects. The AI system known as “Fire Factory” analyses targets and assigns munitions, prioritizes targets, and proposes target allocations.⁵³ The automation and data analysis of war is fully in effect in IDF decision-making processes.

International efforts to limit the use of drones in combat and to ban those that are capable of autonomous lethal action have been forwarded on grounds of ethical concerns and fear of the accelerating pace of warfare.⁵⁴ Called “morally repugnant and politically unacceptable” by UN Secretary-General Antonio Guterres,⁵⁵ autonomous AI weapons challenge the international humanitarian law principle of distinction that governs the ability to discern differences between combatants and non-combatants. Lines blur between uniformed combatants and plain-clothed combatants that wear civilian clothing, especially when they are embedded amongst non-combatants. Faced with combat that demands decisions amongst a sea of data, the analysis task may overwhelm humans and their ability to discern targets fast enough.⁵⁶ Combat acceleration creates new pressures to identify targets and make decisions on lethal effects faster than the twenty seconds reported for IDF operations in Gaza. Currently organizations are considering how to control autonomous weapons; some consider them akin to land mines in their threat potential and control/monitoring while others place the threat higher due to the risk of proliferation at the level of nuclear weapons.⁵⁷

Evaluating and Implications for Professional Militaries

This article does not argue against the use of AI. As military practitioners and instructors at

the United States Army Command and General Staff School, the authors are deeply invested in operational effectiveness, survivability, and lethality. The authors recognize the necessity of maintaining a competitive advantage that yields better outcomes. At the same time, the authors argue that military education must ensure that achieving better outputs does not lead to the moral deskilling of our future leaders. Leaders need to be dynamic, ethically sound, and technologically competent. Commanders and staff officers may at times be without access to AI and will still need to develop plans and recommendations that require practical wisdom. Accordingly, the authors identify two overarching findings specific to command responsibility and two implications for professional military education (PME).

Commanders and staff officers may at times be without access to AI and will still need to develop plans and recommendations that require practical wisdom.

The first finding concerning command responsibility is that responsibility remains human. A commuter or AI model cannot be held accountable. As in the modern runaway trolley case, the person who designed the AI model retains responsibility for what the trolley did, and the person who decided to outsource the trolley’s track selection also shares responsibility. In the military, the commander is ultimately responsible and will ultimately be held accountable. Therefore, the commander must decide.

The second finding, closely related to the first, is that moral agency cannot be delegated. AI models can help mitigate biases, analyze large amounts of data, and predict future outcomes, but they do not possess moral agency. Moral

agency is solely a human endeavor. There are also two implications for PME. First, training with AI must include training against overreliance. Adversaries can learn and probe the limits of AI—just as they know the limits of United States military doctrine, weapon systems, and other equipment. They cannot, however, determine the limits of each Soldier. The United States Army’s greatest strength is its force. For this reason, AI should be treated as a multiplier. The baseline is the commander or Soldier. If AI multiplies the Soldier’s ability, anything multiplied by a negative will yield a greater negative. Conversely, if the Soldier has a positive baseline, AI enables greater outputs while supporting individual development. This underscores the importance of training and educating on the fundamentals in staff processes—such as operational design, the joint planning process, military decision-making process, or joint intelligence preparation of the environment—both with and without AI enhancement. Second, AI literacy can function as a virtue-supporting practice. AI can help mitigate biases, analyze large databases, and support better organizational decisions. This requires, however, that users understand AI’s capabilities and limitations. Those working with AI must recognize when it can help produce quicker, better organizational outputs and when it is preferable to rely primarily on human judgment.

Conclusion

This article has argued that Aristotle’s virtue ethics provides a useful framework for analyzing the ethical implications of AI in military decision-making. Rather than focusing solely on AI design or outputs, it has sought to extend current AI ethics literature by emphasizing *phronesis*, or the development of practical wisdom. It has suggested that routinely outsourcing deliberation to AI may deskill a commander’s or staff officer’s practical wisdom, even when AI enables better decisions. Users must therefore be deliberate and mindful about the implications of AI as a decision-support tool. AI can act as a trusted staff officer, helping organizations make better decisions by analyzing large amounts of data, mitigating certain biases, and enabling rapid iteration. Yet, if used unreflectively, it risks eroding practical wisdom. AI can sharpen decisions, but only character can bear the weight of command. Thus, if AI is to strengthen the profession of arms, it must serve practical wisdom rather than silently replace it. **IAJ**

Notes

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