

## The Evolution of AI Implementation in the DOD

In one form or another, the U.S. Army Chaplain Corps has been responsible for the Army ethics training mission for almost 250 years. It has been training and employing/ fielding specialists in ethics subfields for more than 3 decades. But a new field of ethics that is strategically relevant to the future security of our Nation has emerged. And now, the Chaplain Corps has an opportunity to adapt its ethics training to include artificial intelligence (AI) ethics and enhance its support for the Army of 2030 and beyond.

Innovative technology frequently outpaces the ability to anticipate its effects and respond appropriately. Critical examination of the production and employment of AI systems in an effort to anticipate and mitigate their potential negative effects is the foundation of AI ethics. The Department of Defense (DOD) approach to AI ethics has significantly evolved over the last decade.<sup>1</sup>

In 2018, the DOD published the DOD Artificial Intelligence Strategy (DAIS), which acknowledged that AI will impact every aspect of the DOD and directed a set of initiatives to rapidly and responsibly incorporate AI in order to enhance military decision making and operations across key mission areas.<sup>2</sup> The DAIS articulated guiding principles for the ethical employment of AI and committed the DOD to employing AI technologies in ways that advance peace and stability.<sup>3</sup> It also introduced concepts germane to the Chaplain Corps ethics training mission, stating, "By improving the accuracy of military assessments and enhancing mission precision, AI can reduce the risk of civilian casualties and other collateral damage."4 Finally, it noted that the DOD must cultivate existing talent through a comprehensive AI training initiative that would allow Soldiers to adapt to new AI-involved roles in the future.<sup>5</sup>

In 2020, the DOD published the *DOD AI Education* Strategy (DAIES).<sup>6</sup> This document added a more specific AI implementation framework and formalized the structure of AI education within the DOD. The strategy directed the DOD to "train [AI] end users to ensure they understand the limitations of AI systems and applicability of models in realworld contexts."<sup>7</sup> Per the *DAIES*, competency in AI ethics requires, but is not limited to, the following:

- A clear perspective on the ethical governance of AI.
- An understanding of the ethical application of AI-enabled tools.
- An awareness of ethical risks associated with particularuse cases.
- The ability to adapt ethical AI principles for command and effectively communicate them across an organization.
- The ability to provide advice concerning acceptable risk mitigation in employing/adopting AI into missions and processes.<sup>8</sup>

In 2022, the DOD Responsible AI Working Council issued the U.S. Department of Defense Responsible Artificial Intelligence Strategy and Implementation Pathway (RAISIP).<sup>9</sup> The RAISIP advanced the DOD AI strategy by outlining the operationalization of the AI ethical principles.<sup>10</sup> It reiterated the DOD focus on the employment of AI in a manner consistent with national values, shared democratic ideals, and a steadfast commitment to lawful and ethical behavior. The RAISIP also reinforced responsible artificial intelligence (RAI) as the DOD term of reference for AI ethics, explaining that RAI is "an approach to design, development, and deployment that ensures the safety and ethical employment of our systems; it emphasizes the necessity to build effective, resilient, robust, reliable, and explainable AI, while recognizing the value of multidisciplinary teams to advise on ethics, accountability, and risk."11 The RAISIP expanded upon six RAI foundational tenets established in the 26 May 2021 Deputy Secretary of Defense memorandum entitled "Implementing Responsible Artificial Intelligence in the Department of Defense"; those tenets are—

- RAI governance.
- Warfighter trust.
- Al product and acquisition lifecycle.
- · Requirements validation.
- Responsible AI ecosystem.
- Al workforce.<sup>12</sup>

These evolving DOD documents unequivocally directed DOD elements to posture themselves to provide the capabilities required to complete future AI-enabled missions.

## The Role of Chaplains

In the early stages of DOD AI strategy development, training and employing/fielding AI ethicists was not feasible. But as the DOD continues to posture for the future fight, it must transform at a pace that can be sustained by available resources. This will require difficult choices about the speed of modernization and the risks assumed in charting a long-term course for integrating new capabilities.<sup>13</sup> Today, the fielding of AI ethicists would merely require an adaptation of the Advanced Civil Schooling ethics mission that the Chaplain Corps has been successfully executing by regulation and precedence since the Vietnam War. The Chaplain Corps possesses the human capital, institutional knowledge, and allocated funding necessary to execute the AI ethics mission.<sup>14, 15</sup>

AI ethicists typically have a background in data science or philosophy and understand psychology, philosophy, and the relevant aspects of law. In part, their duty description, includes—

- · Conducting ethical impact assessments of AI systems.
- Integrating ethical considerations into the design and development of AI systems.
- Developing and delivering educational and training materials on AI ethics.<sup>16</sup>

As religious support professionals, chaplains are especially qualified to serve as AI ethicists. Faith plays a crucial role in AI development, particularly regarding topics such as automation, surveillance, and AI in combat.<sup>17</sup> AI ethicists must have the intrinsic desire and motivation to ensure the creation of responsible technology in pursuit of humans as the end beneficiary.<sup>18</sup>

Future AI ethicist optimal utilization assignments will be available at the Chief Digital and Artificial Intelligence Office, Arlington, Virginia (where an Army ethics officer has already been assigned) or within commands supporting the U.S. Army Futures Command. These AI ethics subject matter experts may be embedded with integrated product teams employed across the DOD AI capabilities generation enterprise, and their duties might include forecasting potential ethical issues of new AI tools and implications of DOD efforts, tracking ethics-related concerns and addressing them through appropriate channels, and ensuring that end user experiences reflect RAI principles. They may also serve as AI ethics educators, similar to the ethics instructors who are currently staffed at training centers of excellence across the Army.

## Conclusion

If we accept the *DAIS* and the "Army of 2030" Information paper projections that AI-enabled systems will be employed at the tactical level, then the need for AI ethics proficiency will significantly increase. If unmanned combat systems really are the future of the battlefield, then AI ethics proficiency may be required in every battalion or brigade in the Army.

RAI implementation requires that DOD components begin training AI-proficient professionals (especially ethicists) now. A feasible training path and optimal utilization assignments now exist to enable the fielding of AI ethicists. Adapting the Chaplain Corps ethics training mission in order to field AI ethicists will ensure that the DOD is postured for success on the AI-enabled battlefields of the future.

As the DOD transforms to meet an uncertain future, the Chaplain Corps must adapt to ensure that it is ready and capable when the Nation calls. After all, "The present moment is pivotal: We must act to protect our security and to lead the world in the development and adoption of transformative defense AI solutions that are safe, ethical, and secure."<sup>19</sup>

## **Endnotes:**

<sup>1</sup>U.S. Department of Defense Responsible Artificial Intelligence Strategy and Implementation Pathway, DOD Responsible AI Working Council, June 2022, p. 4, <<u>https://media</u>. .defense.gov/2022/Jun/22/2003022604/-1/-1/0/Department -of-Defense-Responsible-Artificial-Intelligence-Strategy-and -Implementation-Pathway.PDF>, accessed on 20 November 2024.

<sup>2</sup>Summary of the 2018 Department of Defense Artificial Intelligence Strategy: Harnessing AI to Advance Our Security and Prosperity, DOD, 2018, <<u>https://media.defense</u> .gov/2019/Feb/12/2002088963/-1/-1/1/SUMMARY-OF-DOD-AI -STRATEGY.PDF>, accessed on 14 November 2024.

<sup>3</sup>Ibid.

4Ibid, p. 6.

<sup>5</sup>Ibid.

<sup>6</sup>DOD AI Education Strategy, DOD, 2020, <<u>https://apps.dtic</u>.<u>mil/sti/trecms/pdf/AD1122946.pdf</u>>, accessed on 20 November 2024.

<sup>7</sup>Ibid, p. 5.

8Ibid, p. 22.

<sup>9</sup>U.S. Department of Defense Responsible Artificial Intelligence Strategy and Implementation Pathway.

<sup>10</sup>Ibid, p. 5.

<sup>11</sup>Ibid, p. 6.

<sup>12</sup>Kathleen Hicks, "Implementing Responsible Artificial Intelligence in the Department of Defense," memorandum, DOD, 2021, <<u>https://media.defense.gov/2021/May/27/2002730593</u> /-1/-1/0/IMPLEMENTING-RESPONSIBLE-ARTIFICIAL -INTELLIGENCE-IN-THE-DEPARTMENT-OF-DEFENSE .PDF>, accessed on 20 November 2024. <sup>13</sup>"Army of 2030," information paper, U.S. Army, 2022, <<u>https://api.army.mil/e2/c/downloads/2022/10/06/4632c205</u>/army-2030-information-paper.pdf>, accessed on 20 November 2024.

<sup>14</sup>FM 1-05, Religious Support, 21 January 2019.

<sup>15</sup>Army Regulation (AR) 165-1, Army Chaplain Corps Activities, 5 February 2024.

<sup>16</sup>"What Does an AI Ethicist Do?" *Artisan* website, <<u>https:</u> //artisantalent.com/job-descriptions/ai-ethicist/>, accessed on 20 November 2024.

<sup>17</sup>"AI and Faith," unpublished letter to the Office of Science and Technology Policy, Executive Office of the President of the United States, 2023.

<sup>18</sup>Olivia Gambelin, "Brave: What It Means to Be an AI Ethicist," *AI Ethics*, 1 February 2021, <<u>https://doi.org/10.1007</u>/<u>\$43681-020-00020-5</u>>, accessed on 20 November 2024.

<sup>19</sup>Summary of the 2018 Department of Defense Artificial Intelligence Strategy, p. 17.

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