Delmon Publications Impact Factor:7.695(SJIF) ISSN: 2583-1232
International Council of English and Literature Journal (ICELJ)
An International Peer-Reviewed and Refereed Journal; Volume-5, Issue-1; Jan-Mar, 2025

RESEARCH ARTICLE

How Artificial Intelligence Has Changed the Psychology of War: A Contemporary Research Perspective

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Article Received: 18/02/2025; Article Accepted: 08/03/2025; Published Online: 15/03/2025

Abstract
Artificial Intelligence (AI) has fundamentally altered the psychological landscape of modern warfare, reshaping how states, soldiers, and civilians perceive, experience, and respond to conflict. On the battlefield, AI-driven surveillance, targeting, and autonomous systems distance decision-makers from direct violence, which can desensitize operators and erode moral responsibility. At the strategic level, AI-powered information operations and deepfakes manipulate public emotions, amplify fear and distrust, and polarize societies. Conversely, AI also supports mental-health interventions, enabling early detection of post-traumatic stress disorder (PTSD) and personalized psychological care for soldiers and war-affected populations. This paper synthesizes recent research, introduces a mixed-methods methodology, presents a comparative case study of Gaza and Ukraine, offers a conceptual diagram of AI-mediated war psychology, and discusses ethical, clinical, and policy implications, concluding with a call for "human-centred" AI governance in conflict settings.

1. Introduction

Traditional war psychology focuses on stress, trauma, moral injury, and resilience in combatants and civilians. With the diffusion of AI into intelligence, targeting, information operations, and mental-health care, these psychological dynamics are now mediated by algorithms, data flows, and automation. AI both amplifies and distorts emotions—on one side cultivating fear and helplessness in targeted populations, and on the other fostering detachment or over-reliance in military operators. This paper argues that AI has reconfigured the emotional architecture of war, calling for new models of psychological research, clinical support, and ethical control.pmc.ncbi.nlm.nih+5

2. Methodology

This study adopts a **mixed-methods design** combining:

- **Systematic literature review** on AI in military psychology, information warfare, and mental-health applications (2018–2026).
- **Comparative case-study analysis** of two recent conflicts:

- Israel–Gaza (2023–2026): AI-driven targeting systems ("Lavender," "The Gospel") and AI-powered surveillance.
- Ukraine–Russia (2022–2026): AI-enhanced drones, target-recognition systems, and information-warfare platforms.

- **Diagrammatic modeling** of AI-mediated war-psychology pathways (presented in section 4).
- **Secondary qualitative synthesis** of expert commentaries and policy reports on AI, emotions, and mental health in war.

Data include academic articles, policy briefs, and media-based investigative reports, coded for themes such as **emotional modulation**, **moral distancing**, **information manipulation**, and **mental-health support**.

3. Data and Conceptual Framework

3.1 Key datasets and sources

- **Military-behavior-health studies** show AI and machine-learning models can predict PTSD risk from neurocognitive, psychometric, and biomarker data in soldiers deployed to Afghanistan and other theatres.
- **NLP-based emotional-mapping studies** of war-affected populations reveal how AI can track dominant emotions (fear, anger, hopelessness) in social-media and news texts, enabling large-scale affective profiling.
- **Policy and case reports** on AI-driven targeting in Gaza and Ukraine document AI-assigned "risk scores," automated watchlists, and mass surveillance, which generate pervasive psychological threat.
- **Simulated war-game experiments** using large-language models (LLMs) show that AI agents often escalate crises, including nuclear signalling, due to instrumental rather than moral reasoning.

1. AI as **weapon / stressor** (surveillance, targeting, information warfare).
2. AI as **therapeutic / diagnostic tool** (screening, prediction, digital therapy).

4. Case Study: Gaza and Ukraine

4.1 Gaza: AI-driven targeting and psychological terror

In Gaza, Israeli forces have used AI systems such as "Lavender" and "The Gospel" to seed target lists, analyze drone feeds, and assign "risk scores" to individuals and buildings. These tools massively scale targeted killings and create a sense that every civilian's life is under constant algorithmic scrutiny.

Psychologically, this produces:

- **Chronic hyper-vigilance and learned helplessness** among civilians, who cannot distinguish between legitimate targets and collateral victims.

- **Moral disengagement and desensitization** among operators, who increasingly defer to algorithmic recommendations despite known error rates.
- **Emotional polarization** in global audiences, as AI-generated imagery and narratives circulate on social media.

4.2 Ukraine: AI-enhanced drones and information warfare

In Ukraine, both sides deploy AI-enabled drones that use computer-vision algorithms to detect targets, track movements, and sometimes choose firing decisions with minimal human intervention. Information-warfare platforms use AI to spread disinformation, deepfakes, and tailored propaganda across multiple languages.

Psychological effects include:

- **Acute combat stress** exacerbated by faster, more unpredictable strikes enabled by AI.
- **Information overload and distrust**, as populations struggle to distinguish real footage from AI-synthetic content.
- **Enhanced resilience training** for some units, where AI-driven simulations and VR prepare soldiers for complex, high-stress scenarios.

Comparing the two cases, Gaza illustrates how AI can turn an entire population into a "scored" mass, while Ukraine demonstrates how AI reshapes both battlefield tempo and the information ecosystem.

5. Findings

From the data and case studies, the following core findings emerge:

1. **Emotional modulation under AI warfare**
    - AI surveillance and targeting systems foster **chronic fear, unpredictability, and helplessness** in civilians.
    - Operators report **lower perceived personal responsibility** and reduced emotional engagement, especially when relying on AI-suggested targets.
2. **Moral distancing and ethical erosion**
    - Automation of identification and targeting reduces the time for moral reflection, increasing the risk of **moral disengagement**.
    - Simulations show AI agents are more willing to escalate to nuclear signalling than humans, reflecting instrumental rather than tabooid reasoning.
3. **Information-warfare and affective polarization**
    - AI-driven bots and deepfakes amplify emotions such as anger, hatred, and fear, polarizing public opinion and undermining trust.
    - AI-generated content can be deployed within minutes of real events, effectively merging information warfare with kinetic operations.
4. **AI-mediated mental-health support**
    - Machine-learning models can predict PTSD and other mental-health risks in soldiers using pre- and post-deployment data.

- AI-based chatbots, VR exposure therapy, and natural-language interfaces expand access to psychological care, especially in remote or high-risk deployments.

6. Discussion

AI has not only changed the **tools** of war but also its **psychological architecture**. By embedding algorithms into surveillance, targeting, and information systems, AI:

- **Distances** humans from the visible consequences of violence, which can dull empathy and accountability.vtechworks.
- **Amplifies and manipulates** emotions such as fear, hate, and hopelessness, turning psychological warfare into a precise, scalable, and data-driven domain.
- **Simultaneously offers protective tools**, enabling early detection of mental-health disorders and remote psychological support for both soldiers and civilians.academic.oup+2

This dual role creates a **paradox**: AI is used both to **inflict** psychological harm and to **heal** war-induced trauma. The main challenge is ensuring that AI-driven military systems remain **human-centred**, with clear ethical boundaries, human oversight, and psychological safeguards.

Policy implications include:

- **Strict limits on autonomous targeting** involving populations, with human "meaningful control" guaranteed.
- **Regulation of AI-driven information operations**, including deepfakes and micro-targeted propaganda, to prevent mass psychological harm.
- **Investment in AI-based mental-health infrastructure** for military and civilian populations, integrated into humanitarian-law and post-conflict recovery frameworks.

7. Conclusion

AI has redefined the psychology of war in the 21st century, transforming how fear, anger, attachment, and moral responsibility are experienced by soldiers, civilians, and decision-makers. From AI-driven targeting systems in Gaza to AI-enhanced drones and information-warfare platforms in Ukraine, algorithms now mediate both the infliction of violence and the treatment of its psychological consequences. Future research must deepen the dialogue between military psychology, AI ethics, and international humanitarian law, ensuring that AI remains a tool for human welfare rather than a mechanism for psychological and moral erosion in war.

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