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INDIA'S JOURNEY SO FAR ON THE AI MILITARY BANDWAGON

India's Progress in Military AI Development: A Strategic Leap Forward

- India is steadily advancing its military capabilities by integrating Artificial Intelligence (AI) systems into its defence framework. The Defence Budget for 2023-24, pegged at ₹6.21 lakh crore (\$75 billion), underscores the emphasis on modernization and upgrading military systems.
- The development of innovative products such as the *Indrajaal* autonomous drone security system showcases India's commitment to leveraging AI for defence applications. Additionally, significant foreign investments, like Microsoft's \$3 billion initiative to build data centres in Telangana, are enhancing India's AI ecosystem and fostering a conducive environment for technological growth.

Government's Commitment to AI in Defence: Transforming Modern Warfare

- Defence Minister Rajnath Singh has highlighted AI's transformative potential in revolutionizing military operations. AI applications span predictive analytics, autonomous decision-making, and battlefield management, offering India a technological edge.
- India actively participates in global AI initiatives, reflecting its resolve to harness AI for strategic purposes. However, despite evident progress, several challenges must be addressed to ensure efficient AI adoption and integration into military systems.

Challenges in Adopting Military AI: Funding, Policy, and Technological Barriers

1. Funding and Infrastructure Limitations

AI development demands substantial investment in digitized data infrastructure and high-cost data centres. These requirements strain India's defence budget, especially as resources are also needed for replacing outdated legacy systems. Legacy platforms, such as older aircraft, struggle to remain globally competitive and highlight the pressing need for modernization.

2. Policy Gaps and Implementation Challenges

India's AI policies, while promising, often lack specific mechanisms for military implementation. Frameworks like the *National Strategy for Artificial Intelligence* and the *Responsible AI for All* document provide general guidelines but fail to address the nuanced demands of military AI deployment. Institutions such as the Defence Artificial Intelligence Council (DAIC) and the Defence AI Project Agency (DAIPA) are pivotal but require greater transparency and updated progress reporting to inspire confidence in their efforts.

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Navigating the Global AI Race: Staying Competitive Amid Rapid Advancements

• Countries such as Israel and China are spearheading rapid advancements in military AI, setting benchmarks that India must strive to meet. The global race to dominate military AI is intensifying, necessitating a clearer vision and faster execution from India to maintain competitiveness. Cautionary statements from global leaders comparing AI to nuclear weapons emphasize the need for balanced, ethical approaches to its deployment, highlighting potential risks alongside its transformative potential.

Specific Challenges in India's Military AI Ecosystem

1. Inter-Service Silos in Armed Forces

The lack of interoperability among the doctrines and communication systems of the Indian Army, Navy, and Air Force poses a significant challenge. These silos hinder joint operations and reduce the efficiency of AI-enabled solutions. Establishing a unified operational framework is crucial for addressing this issue.

2. Overreliance on Public Sector Units (PSUs)

India's defence sector has traditionally depended on Public Sector Units (PSUs) despite the emergence of private players and startups capable of delivering high-quality systems. Encouraging public-private partnerships (PPPs) and fostering competition, akin to the transformation seen in the space sector, can catalyze AI innovation and adoption in defence.

The Path Forward: A Strategic Roadmap for AI in Defence

• For India to unlock the full potential of AI in its defence ecosystem, systemic changes are essential. Addressing inter-service silos and reducing reliance on PSUs are pivotal steps toward modernization. Establishing strong ethical frameworks and clear, actionable policies will ensure the effective deployment of military AI. Moreover, fostering innovation through PPPs and enhancing international collaboration will bolster India's capabilities in this domain.

Conclusion: Harnessing AI to Revolutionize India's Defence Ecosystem

• AI presents a unique opportunity for India to revolutionize its defence systems and maintain strategic superiority. While challenges persist, a cohesive strategy encompassing robust policies, systemic reforms, and active international engagement will enable India to harness the transformative power of AI effectively. By prioritizing innovation, collaboration, and modernization, India can secure its position as a global leader in military AI development.

Source: <u>https://www.thehindu.com/opinion/op-ed/indias-journey-so-far-on-the-ai-military-bandwagon/article69086087.ece</u>

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