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How Bureaucratic Shuffling in JAIC and CDAO Obscured the Real Challenges of Government AI Adoption

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May 8, 2025

CONTENTS

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The Gordian Knot Center is the entrepreneurship center for national security. It brings together Stanford and Silicon Valley technology, talent, and rapid innovation to solve intractable problems in national security.

EXECUTIVE SUMMARY

The Department of Defense (DoD) established the Joint Artificial Intelligence Center (JAIC) and later consolidated it into the Chief Digital and Artificial Intelligence Office (CDAO) to accelerate AI adoption across the military. However, structural misalignment, bureaucratic inertia, cultural resistance, and limited enforcement power undermined their effectiveness. Despite receiving Congressional funding, JAIC and CDAO struggled to integrate artificial intelligence (AI) into military operations as a result of fragmented governance, inter-service rivalries, and an absence of direct control over AI investments. Bureaucratic layers expanded, and "flyaway" teams did not have the authority or resources to deploy operational capacities. Additionally, cultural friction led to resistance from military branches while high attrition rates weakened institutional knowledge. This paper distills key lessons from JAIC and CDAO to guide the design and execution of future government units, ensuring they are strategically positioned, effectively governed, and empowered to drive lasting impact.

KEY LESSONS & RECOMMENDATIONS

To support future AI innovation, we recommend government leaders pursue the following measures:

1. **Position entrepreneurial units within decision-making authorities and ensure structural integration.** JAIC's placement under the DoD's Chief Information Officer hampered its ability to mandate AI adoption in service branches. Future organizations should be embedded within operational commands with direct budgetary and directive authority.
2. **Use governance to define acceptable risk and deliver results.** The CDAO case study reveals that leaders should ensure oversight and compliance functions enable implementation by defining acceptable risk, especially with novel and powerful technologies like AI.
3. **Align funding control with decision-making power to avoid stagnation.** JAIC and CDAO received Congressional funding but did not have the authority to dictate how services used it. Future entrepreneurial units in government should have the ability to set and enforce spending priorities instead of relying on persistent persuasion.
4. **Overcome cultural resistance by embedding innovation in operational units.** Resistance to external oversight has slowed government AI adoption. Innovation teams within DoD should work alongside warfighters to ensure solutions align with military needs and scale requirements.
5. **Avoid forced mergers without a clear integration strategy.** The JAIC and CDAO case studies demonstrate how forced mergers struggle to address deep organizational and cultural rifts without leaders first defining a unified mission, setting structures, and aligning incentives.

METHODOLOGY

This study employed a rigorous multi-method approach to analyze the formation, challenges, and effectiveness of entrepreneurial government units, with a focus on JAIC and CDAO. The study weaved organizational history research, qualitative interviews, and extensive archival analysis to provide a comprehensive evaluation of governance, execution, and impact. We analyzed data from 39 interviews with current and former senior government officials as well as thought leaders in academia and senior executives at Federally Funded Research and Development Centers (FFRDCs). 11 personal semi-structured interview conversations offered first-hand insights into decision-making, bureaucratic obstacles, and stakeholder dynamics. 28 online interviews featuring key personnel added further depth to our analysis of leadership perspectives and institutional strategy. We gathered more than 75 open-source reports ranging from government and policy documents to media, FFRDC analysis, procurement contracts, official DoD memoranda, and budget information. We reviewed YouTube interviews and public events from national-level decision makers to assess their stated goals, strategic shifts, and institutional challenges. This study represents a robust examination of government entrepreneurship. By triangulating interviews, archival research, and theoretical frameworks, we provide an assessment of what drives and hinders government innovation. Our findings offer actionable insights for policymakers, agency leaders, and entrepreneurial units—present and future—striving to balance innovation with institutional stability.

We combined organizational history research, qualitative interviews, and extensive archival analysis to provide a comprehensive evaluation of their governance, execution, and impact.

CORE CONCEPTS

The JAIC and its successor, the CDAO, formed to accelerate AI integration and data-driven decision-making at DoD. Both organizations, however, faced structural inefficiencies, bureaucratic resistance, leadership shortcomings, and cultural friction, critically disrupting their ability to achieve meaningful impact. This analysis applies four key organizational concepts—organizational positioning, governance, stakeholder resources and power, and overcoming inertia—to diagnose the challenges JAIC and CDAO faced and to extract critical lessons for government-led innovation moving forward.

Principle 1. Organizational Positioning: Structural Misalignment and Silos' Persistence

An **organization's position** within a bureaucratic hierarchy significantly influences its ability to execute its mission. A well-positioned entity has clear enforcement authority, budget control, and jurisdiction over key stakeholders, enabling it to drive meaningful change. By contrast, an organization lacking these levers of influence must rely on persuasion, voluntary cooperation, and fragmented funding structures, thereby challenging the possibility of large-scale implementation.

A well-positioned entity has clear enforcement authority, budget control, and jurisdiction over key stakeholders.

JAIC's positioning under the DoD Chief Information Officer constrained its role as an enabler of warfighting capabilities. Instead of being structured as an operational AI implementation unit, JAIC was treated primarily as a technology initiative. Without Title 10 authority, JAIC could not mandate AI adoption across the services and instead was compelled to rely on coordination and influence to drive change. A former senior military official described how this misalignment created an identity challenge within the DoD:

> *"No organization could oversee JAIC because no one knew what we did or how it worked."* [1]
>
> *"We were stuck under the DoD Chief Information Officer but were expected to influence warfighting applications. The mismatch was clear from the start."* [2]

Hypothetically, had JAIC been embedded in a unified warfighting command with Title 10 authority from the start, the Command could have directly overseen AI application adoption across all service branches and ensured they would usefully serve the warfighter. Without these structural constraints, JAIC would have been far more effective scaling AI across the armed services.

The CDAO Merger: Attempted Realignment Without Full Integration

Acknowledging JAIC's structural limitations, the DoD consolidated it, the Defense Digital Service, the Chief Data Office, and Advana into the Chief Digital and Artificial Intelligence Office (CDAO) in 2022. It did so with the goal of streamlining AI adoption, enhancing data-sharing policies, and aligning AI acquisition strategies with commercial best practices.

However, instead of functioning as a true organizational merger focused on efficiency and synergy, CDAO operated more as a realignment of pre-existing entities with each component retaining much of its prior independence. A former senior leader who played a role in shaping CDAO's mission explained how this created friction rather than cohesion as originally intended:

> *"The hardest part of the merger was that the teams didn't want to merge, and they didn't see the value in working together as equals. That was a major hurdle."* [3]
>
> *"The organizations technically merged on paper, but in practice, they remained separate entities. They had a new name—'CDAO'—but still functioned as JAIC, Advana, and so on underneath the hood."* [4]

Instead of creating a centralized AI strategy, the merger of these organizations functionally enabled the services and previously-independent offices to maintain separate priorities, sometimes-conflicting approaches, and competition for funding.

Had these entities been fully integrated together (teams, leadership, technology, and objectives), CDAO could have benefited from a more cohesive AI development and adoption framework that didn't eliminate certain initiatives because of competition. Cutting down on waste and cost also would have resulted in a more unified and efficient CDAO.

Service Resistance and the Challenge of Centralized Oversight

A key challenge in AI adoption was the perception of CDAO as an externally-imposed oversight body rather than as a collaborative partner. Because JAIC fell under the management of the Office of the Secretary of Defense (OSD)—a civilian body, the military services were reportedly hesitant to fully embrace it. A former senior military official described this resistance:

> *"Nothing energizes the services more than opposition to the OSD. Since OSD owned the JAIC, it was good they had top cover, but then every service started doing their own AI work."* [5]
>
> *"None of the services knew what they were doing, but the JAIC didn't either. The services just knew they should be in opposition to the OSD as a result of fierce tribalism."* [6]

Rather than aligning under a unified AI strategy, each service developed its own independent AI programs. This led to fragmentation, duplication of effort, and inconsistent adoption across the DoD.

The Failure to Integrate Siloed Organizations

When CDAO was formed in 2022 by consolidating the JAIC, Defense Digital Service, Chief Data Office, and Advana, this formation was intended to streamline AI adoption across the DoD. However, the merger did not fully integrate these organizations into a cohesive entity. Instead, CDAO inherited the fragmented cultures, operational styles, and competing priorities of its predecessor organizations.

A former senior official explained how this absence of integration created confusion about priorities, funding, and execution:

> *"One of the primary goals of the merger was to drive integration, but without structural incentives, that didn't happen naturally."* [7]
>
> *"Employees didn't fully understand why they were now part of 'CDAO.' They were still working with the same teams, doing the same work, and suddenly had a new name on their badge. That created confusion and demoralization."* [8]

"One of the primary goals of the merger was to drive integration, but without structural incentives, that didn't happen naturally."
— Former Senior Official

This unclear integration strategy resulted in internal efficiencies and operational uncertainty:

- Advana's backend, originally designed for data aggregation rather than AI-driven analytics, struggled to support large-scale AI applications.
- JAIC personnel felt displaced as their roles within the new structure were poorly defined.
- Defense Digital Service employees resisted integration, citing concerns that CDAO leadership lacked the technical expertise to oversee their work.
- DoD stakeholders remained uncertain whether CDAO's primary role was governance, AI delivery, or research, thereby leading to ambiguity about expectations and responsibilities.

Impact on Success

The absence of JAIC's enforcement authority prevented it from mandating AI adoption across the military services. Without Title 10 authority or the ability to direct AI funding, JAIC could only recommend AI policies rather than implement them, leaving each military branch to pursue its own AI initiatives. Instead of fostering a unified strategy, the creation of CDAO reinforced existing silos and led to internal competition over resources and priorities.

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By allowing legacy organizations to maintain their independent cultures, CDAO struggled to function as a single, coordinated entity. The military services viewed CDAO not as an enabler of AI adoption, but as an external body imposing oversight. As a result, many services chose to develop their own AI programs rather than engage with CDAO's initiatives.

Without clear structural incentives for collaboration, CDAO inherited conflicting priorities that hindered its ability to standardize AI approaches, drive data-sharing reforms, and implement enterprise-wide AI solutions. Instead of becoming a centralized force for AI modernization, CDAO spent much of its early years navigating bureaucratic obstacles, service resistance, and interagency friction, limiting its impact.

Principle 2. Governance: Bureaucratic Overload and Decision Paralysis

Governance defines how an organization sets priorities, makes decisions, and enforces accountability. Effective governance ensures that policies align with execution and enables an organization to operate efficiently. When governance structures become too complex, slow, or compliance-heavy, they can create unnecessary barriers to action. These may lead to inefficiencies, delays in decision-making, and an inability to execute key initiatives. Poor governance results in confusion about roles, unclear accountability, and failure to implement large-scale reforms.

> *"Governance mechanisms existed, but they made decision-making slower, not faster."* [9]
>
> *"Bureaucratic dysfunction is manageable when you have predictable responsibilities, but when you are starting an innovation unit, responsibilities aren't predictable. Old bureaucratic behaviors can't be applied."* [10]

JAIC reportedly struggled with weak governance from its inception, which contributed to its inability to direct AI adoption across the DoD. Congress authorized JAIC as the military's flagship AI initiative, yet the organization lacked clear oversight. The 2021 National Defense Authorization Act mandated a Board of Directors for JAIC, but this board was never fully implemented. Without a formal decision-making body to enforce AI adoption, JAIC had to rely on persuasion rather than directive authority. This governance gap allowed military services to develop their own AI initiatives independently rather than aligning with JAIC's mission.

CDAO attempted to fix JAIC's governance shortcomings by creating the CDAO Council, a governance body designed to coordinate AI strategy across DoD leadership. However, the council seemingly introduced more bureaucracy rather than simplifying decision-making. A former senior military official described how governance complexity slowed progress instead of accelerating it:

> *"CDAO became too focused on policy and compliance rather than delivering AI capabilities to warfighters."* [10]

CDAO inherited fragmented governance structures from JAIC, the Defense Digital Service, the Chief Data Office, and Advana. Instead of consolidating these organizations under a single governance framework, CDAO allowed them to continue operating semi-independently, which reinforced inefficiencies. Instead of eliminating redundant leadership structures, CDAO's governance approach arguably maintained them, creating confusion about which part of the organization was responsible for which AI functions.

CDAO's governance also overemphasized responsible AI frameworks and compliance, diverting resources from operational AI deployment. A former senior military official criticized this shift in focus, arguing that it distanced CDAO from its core mission.

> *"CDAO studied AI to exhaustion. Instead of focusing on implementation, they were focused on AI policy and regulatory concerns."* [11]

Excessive governance requirements had created an organization focused more on process than results.

While responsible AI policies are important, they should enable execution, not obstruct it. CDAO's governance structure led to a situation where the organization spent more time refining AI governance policies than fielding AI capabilities in real-world operations.

The Impact of Bureaucratic Overload on Execution

CDAO leadership initially believed that a strong governance framework would streamline AI integration across the DoD. However, by 2023, excessive governance requirements had created an organization focused more on process than results. Bureaucratic inefficiencies slowed critical AI adoption efforts, including the AI and Data Accelerator initiative and AI integration into the Joint All-Domain Command and Control strategy.

A former senior leader noted that CDAO faced significant challenges in navigating the competing interests of DoD agencies, the Office of the Secretary of Defense,

and Congress. Each of these bodies had different expectations for CDAO's role, which triggered inconsistent decision-making, delays in AI acquisition, and failure to secure full buy-in from military stakeholders.

CDAO's strong reliance on consensus-based decision-making slowed execution. Internal teams spent more time refining AI governance policies and working through bureaucratic hurdles than actually fielding AI capabilities. This inefficiency frustrated military stakeholders, who had expected CDAO to act as a force multiplier rather than yet another bureaucratic layer.

CDAO's strong reliance on consensus-based decision-making slowed execution.

By late 2023, CDAO's governance issues became even more apparent as internal morale declined. A DoD-wide personnel survey revealed significant dissatisfaction among CDAO employees, with many citing excessive bureaucracy as a major problem. Many private-sector hires, who had expected an agile environment, found themselves stuck in slow-moving government decision-making processes. The failure to streamline governance structures made it difficult for CDAO to operate at the speed required for AI adoption at scale.

Failure to Align Governance with Mission Execution

CDAO's governance structures slowed execution instead of enabling it. The attempt to centralize AI leadership under the CDAO Council added complexity without granting the organization meaningful enforcement power. Internal silos persisted because CDAO's governance model failed to integrate its absorbed organizations into a unified decision-making structure. The Defense Digital Service, Chief Data Office, and Advana continued operating as semi-independent entities, which reinforced inefficiencies and made collaboration difficult.

A former senior leader acknowledged that structural incentives were necessary to drive integration, but these were never implemented. Instead, leadership relied on existing governance structures, which preserved rather than eliminated the barriers between CDAO's different components.

> *"One of the primary goals of the merger was to drive integration, but without structural incentives, that didn't happen naturally."* [12]
>
> *"Employees didn't fully understand why they were now part of 'CDAO.' They were still working with the same teams, doing the same work, and suddenly had a new name on their badge. That created confusion and demoralization."* [13]

Additionally, CDAO's governance model made it difficult to respond quickly to emerging AI needs. As technology evolved, CDAO struggled to pivot fast enough due to slow decision-making processes. The focus on compliance and governance reviews meant that even relatively minor AI projects required extensive approval processes before they could move forward.

A former senior leader emphasized that governance challenges within CDAO created a disconnect between leadership and execution:

> *"We had all the necessary technical components in place, but the business processes and team structures needed to scale these capabilities effectively were not there."* [14]
>
> *This governance misalignment meant that, despite its strong technical foundation, CDAO struggled to translate AI innovations into operational impact.*

Impact on Success

CDAO's governance model placed too much emphasis on process at the expense of execution. The attempt to centralize AI oversight created additional bureaucratic layers without improving decision-making speed. Internal silos persisted because CDAO failed to integrate its absorbed organizations into a cohesive governance structure.

The excessive focus on responsible AI and compliance diverted CDAO's resources from fielding AI capabilities. Instead of accelerating AI deployment, governance structures created delays that frustrated military stakeholders. The reliance on consensus-based governance further contributed to inaction, as multiple stakeholders had to agree before AI initiatives could move forward.

CDAO's governance challenges also contributed to declining morale among employees and private-sector hires. Many individuals who joined expecting an agile, fast-moving organization found themselves navigating slow government processes that prevented them from making an impact. This further reduced CDAO's ability to recruit and retain top AI talent.

CDAO's governance framework ultimately failed to align with its mission. Instead of serving as a catalyst for AI adoption, CDAO became a compliance-heavy organization that struggled to implement AI at the speed required for military operations.

Principle 3. Stakeholder Resources and Power: Funding Without Execution Control

Stakeholder resources and power determine how funding, decision-making authority, and institutional support influence an organization's ability to execute its mission. Organizations that lack control over their budgets and authority often struggle to transform financial resources into tangible results. This misalignment creates inefficiencies, forces organizations into a cycle of justifying their existence rather than executing their mission, and ultimately leads to fragmentation and slow adoption of new initiatives.

JAIC and later CDAO struggled with a fundamental disconnect between the resources they received and their ability to implement AI solutions at scale. Congress authorized JAIC's creation to lead AI adoption across the DoD, but without Title 10 authority and the ability to mandate AI adoption, JAIC had to rely on influence and persuasion rather than directive power. Congress gave the money. The services kept the power. CDAO had neither control nor leverage.

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A former senior military official described this as a core failure of the organization:

> *"JAIC wasn't effective at all, minor wins in coordination. Major problem—Title 10, can't have a joint organization tell the services what to do."* [15]
>
> *"JAIC knows that they have no authority or budget (~$200 million). Yet Congress puts all these burdens on JAIC."* [16]

This problem persisted when CDAO absorbed JAIC, the Defense Digital Service, the Chief Data Office, and Advana. Although CDAO received an increased budget, it still did not have the correct authority necessary to enforce AI adoption across the services. A former senior leader explained how the lack of execution power led to inefficiencies:

> *"Congress gave us a lot of latitude within the department, but we were constantly in 'pitch mode' with various stakeholders in the House and Senate. Ensuring that every stakeholder got what they needed to move forward resulted in a dilution of the organization's mission and strategy."* [17]
>
> *"We made deliberate efforts to improve communication—weekly calls, structured feedback loops—but at the end of the day, CDAO couldn't compel the services to adopt AI. We had to convince them."* [18]

The Challenge of Congressional Oversight and Military Service Resistance

Congress served as one of the most influential stakeholders in the creation and funding of JAIC and CDAO. While Congressional support ensured a steady budget, lawmakers often imposed prescriptive requirements that limited execution flexibility. A former senior civilian official highlighted this challenge:

> *"Congress enables many investments, but they're prescriptive investors. It becomes impossible for the executive to execute when Congress micromanages how funds must be spent."*[19]
>
> *"Congress wanted to see AI adoption, but it didn't trust the DoD to implement it properly. That led to Congressional overreach in defining AI programs instead of letting execution teams figure out the best approach."*[20]

Congressional influence also led to misaligned priorities, where AI programs were designed more to meet legislative expectations than to drive operational effectiveness. Military services, meanwhile, saw JAIC and later CDAO as a potential threat to their funding and independence. A former senior military official explained how services resisted external AI oversight:

> *"Nothing energizes the services more than opposition to the OSD. Since OSD owned the JAIC, it was good they had top cover, but then every service started doing their own AI work."* [21]
>
> *"The services weren't communicating with Congress properly around AI, but they knew that if they built their own AI initiatives, they could keep control over their budgets and decision-making."* [22]

This created a fragmented AI adoption landscape where multiple, redundant efforts occurred across the services. Instead of a coordinated DoD-wide AI strategy, each branch pursued its own AI programs in isolation, further complicating CDAO's role as a central AI authority.

Inefficiencies in AI Contracting and Procurement

CDAO also faced challenges in AI procurement because of restrictive contracting mechanisms and entrenched defense industry interests. One of the most glaring examples was the $800 million multi-year contract awarded to Booz Allen Hamilton to support JAIC's Joint Warfighting National Mission Initiative. A former military official strongly criticized this contract, describing it as ineffective and counterproductive to fostering true AI innovation:

> *"Hot garbage: the contract ceiling of $800 million doesn't actually mean that's the money to be spent. Complaints about primes seeming to crush innovation. Booz says they are going to subcontract to all these small innovative companies, but it is just the central contracting organization."* [23]
>
> *"Contracting rules don't allow you to actually build winners. Booz takes the money and just builds things themselves, rather than letting smaller AI firms develop innovative solutions."* [24]

This procurement structure favored established defense contractors over smaller AI startups.

This procurement structure favored established defense contractors over smaller AI startups, limiting DoD's ability to leverage cutting-edge commercial AI technologies. CDAO leaders recognized this problem and attempted to introduce

modular procurement strategies that allowed for more competition among AI vendors. Still, the shift was slow, and contractual obligations limited CDAO's flexibility.

The Struggle to Balance Innovation and Bureaucracy

CDAO leaders faced an ongoing struggle to balance AI innovation with the realities of DoD's bureaucracy. A former senior leader described how bureaucratic constraints forced CDAO into a reactive rather than proactive role:

> *"We structured procurements in a modular way, breaking them into smaller task orders that could be completed and structured differently. This gave us more flexibility in managing stakeholders while refining service delivery. However, executing that approach successfully is a programmatic challenge, and we had to see how well it played out."* [25]

Despite these efforts, CDAO still faced internal resistance from stakeholders who preferred the status quo. A former senior official explained how traditional defense acquisition processes were fundamentally misaligned with AI adoption:

> *"The DoD and government agencies don't have an AI problem; they have a fundamental software problem. If you don't get the software architecture right, you don't get AI right."* [26]

This software-first approach clashed with the way the DoD traditionally managed technology programs, further complicating CDAO's mission.

Impact on Success

CDAO's inability to control its own funding and mandate AI adoption across the services led to inefficiencies and duplications of effort. Congress provided funding but also imposed prescriptive oversight which limited execution flexibility. Military services resisted external AI governance, preferring instead to develop their own AI programs to maintain control over their budgets.

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CDAO leaders attempted to introduce modular procurement strategies to encourage AI innovation, but existing contractual obligations favored large defense contractors, making it difficult for smaller AI firms to compete. This further slowed the adoption of cutting-edge AI solutions within the DoD.

The struggle to balance AI innovation with bureaucratic constraints forced CDAO into a reactive position, in which it spent more time managing stakeholders and justifying its existence than implementing AI solutions. This prevented CDAO from becoming the central AI authority it was intended to be.

Principle 4. Overcoming Inertia: Cultural Resistance as a Greater Barrier Than Bureaucracy

Overcoming inertia requires breaking through institutional resistance to change, outdated processes, and entrenched cultural mindsets. Bureaucratic inefficiencies slow progress, but cultural resistance can actively block change from taking hold. In organizations as large and decentralized as the DoD, cultural inertia often outweighs bureaucratic barriers. Individuals and groups accustomed to existing ways of working may see innovation as a threat to their influence, operational control, or funding. Without strong internal buy-in, even well-funded and well-positioned initiatives struggle to gain traction.

JAIC and later CDAO faced cultural resistance on multiple fronts. Many military leaders and defense officials saw AI as overhyped or unnecessary. Instead of embracing AI as a tool for warfighting superiority, they viewed it as an external initiative imposed by policymakers and Silicon Valley outsiders. This resistance manifested in institutional behavior.

Military branches viewed JAIC and CDAO as organizations that could undermine their autonomy.

Military branches viewed JAIC and CDAO as organizations that could undermine their autonomy. They resisted centralized AI oversight because they saw it as a challenge to their control over budgeting and technology development. Instead of working with CDAO, many services deliberately built parallel AI programs to maintain independence. This fragmented AI adoption across the DoD and made coordination nearly impossible.

With early cultural buy-in, however, JAIC and CDAO could have flourished in military branches by rapidly deploying AI into the field. While each branch would have its own needs, JAIC and CDAO could tailor applications for specific instances and use lessons learned from one branch to be applied to another. Instead of

these disparate organizations all distrusting JAIC and CDAO, all parties involved would have benefited from the partnership had they trusted JAIC and CDAO to perform its mission.

A former senior military official and a former civilian leader both noted that even within CDAO, internal cultural differences created obstacles to collaboration. The JAIC, Defense Digital Service, Chief Data Office, and Advana each had its own unique cultures, operational styles, and priorities. Rather than integrating seamlessly, these organizations continued operating independently under CDAO's umbrella.

Disconnect Between AI Leadership and the Warfighting Community

CDAO leadership failed to establish strong relationships with the warfighting community, which further deepened cultural resistance. Under JAIC, leadership had prioritized direct engagement with warfighters to demonstrate AI's operational value. However, when Craig Martell took over CDAO, he shifted focus away from warfighting applications toward broader AI governance and regulation. This change severed the critical link between AI technologists and military operators. A former senior official noted this shift:

> *"CDAO started to fixate on AI as a technology rather than a warfighting enabler. They were more concerned with looking for bias in datasets than building AI applications for real combat scenarios."* [31]
>
> *"They built their own LLM and studied LLMs, but that was far removed from solving actual warfighting problems."* [32]

This pivot alienated the warfighter community which had seen AI as a tool to improve decision-making and operational effectiveness. Instead of focusing on delivering AI capabilities to combat units, CDAO became preoccupied with risk mitigation and AI safety frameworks. While these areas remain important, this shift in focus resulted in growing skepticism in the military because these areas do not directly translate to battlefield effectiveness.

The Failure of the Flyaway Teams Initiative

One of CDAO's most ambitious initiatives to overcome cultural resistance was the Flyaway Teams program which was intended to deploy AI specialists into military units to help integrate AI into daily operations. The goal was to demonstrate AI's value firsthand and create grassroots support for its adoption. However, the initiative quickly lost momentum as a result of internal opposition and structural challenges. According to a former government official, the Flyaway Teams struggled to provide tangible benefits to military units:

> *"The Flyaway Teams became 'fact-sharing' teams. Units wanted engineers and funding to build solutions, but the teams didn't provide that."* [33]
>
> *"People care about prototypes and solving problems. Talking in abstractions and focusing overly on governance is not what people are going to listen to."* [34]

Because the Flyaway Teams did not have enforcement authority and tangible deliverables, they failed to gain credibility among warfighters. The services saw these teams as outsiders with no real power to drive change. Without operational integration, the program fizzled out, reinforcing the perception CDAO was more focused on bureaucratic oversight than advancing practical AI adoption.

Because the Flyaway Teams did not have enforcement authority and tangible deliverables, they failed to gain credibility among warfighters.

Private Sector Friction and Talent Drain

CDAO also struggled to retain AI talent because of its inability to offer competitive salaries together with rigid hiring processes. The private sector provided higher pay, greater autonomy, and fewer bureaucratic constraints, making it difficult for CDAO to attract and retain top AI talent.

A former civilian official described the difficulties of hiring and retaining qualified personnel:

> *"CDAO and JAIC weren't allocated the requisite billets. Rotational assignments meant people didn't stay long enough to make a sizable impact."* [35]
>
> *"People would join for a year, gain government experience, and then get poached by private-sector companies for far more money."* [36]

This constant turnover weakened CDAO's ability to build long-term AI adoption strategies. Instead of creating an enduring AI workforce, CDAO became a stepping stone for private-sector careers, constraining its ability to develop deep expertise in AI implementation.

Impact on Success

Indeed, cultural resistance within DoD prevented CDAO from successfully driving AI adoption at scale. Military services actively resisted external AI oversight, preferring to develop their own solutions rather than align with a centralized AI strategy. The failure to integrate CDAO's various components into a unified organization further weakened its ability to execute its increasingly muddied mission.

The disconnect between AI leadership and the warfighting community damaged CDAO's credibility with operational units. Instead of prioritizing warfighter needs, CDAO leadership became overly focused on governance, compliance, and AI safety; issues that, while important, do not necessarily directly contribute to warfighting effectiveness.

Efforts to embed AI specialists in military units through the Flyaway Teams initiative failed because the teams did not have the required resources, authority, and tangible deliverables. Instead of fostering AI adoption at the tactical level, the initiative became another example of AI efforts lacking operational relevance.

Finally, CDAO's struggles to attract and retain AI talent meant institutional knowledge was frequently lost. The organization reportedly relied heavily on short-term rotational assignments, leading to a high turnover rate that prevented long-term planning and execution. Private-sector opportunities consistently drew talent away as well, further weakening its ability to build an enduring technical workforce.

LESSONS FOR ENTREPRENEURIAL UNITS IN GOVERNMENT

The experiences of JAIC and CDAO reveal critical lessons for government entrepreneurial units seeking to enact innovation and streamline modernization. Leaders therefore should establish strong organizational positioning, design execution-driven governance, align funding with decision-making power, and overcome cultural resistance to change. These units should also embrace an ambidextrous approach, enabling them to develop groundbreaking innovations while ensuring successful integration into existing bureaucratic structures. By balancing exploration and execution, government innovation units can deliver transformational change without disrupting essential government functions.

Recommendation 1. Position Entrepreneurial Units Within Decision-Making Authorities and Ensure Structural Integration

Government innovation units should embed themselves within agencies or offices holding clear operational or budgetary authority rather than functioning as external advisory bodies. Initiatives cannot rely on voluntary cooperation from agencies; they should secure mandates ensuring broad participation. Leaders should ensure these units have the structural power to implement change, not just recommend it.

Government innovation units should embed themselves within agencies or offices holding clear operational or budgetary authority.

These units should fully integrate from their inception instead of merging pre-existing offices with different cultures, priorities, and incentives. Without a unified structure, personnel and decision-making processes become misaligned and create inefficiencies while reinforcing silos between agencies.

To prevent these challenges, government leaders should adopt an ambidextrous structure where innovation units operate with their own processes and cultures while remaining tightly connected to the broader agency leadership. This approach allows teams to develop new solutions without interference from bureaucratic constraints while ensuring their work aligns with long-term government priorities.

Entrepreneurial units should:

- Position themselves within agencies that hold operational and budgetary authority rather than functioning as arms akin to external think tanks;
- Maintain separate innovation teams able to experiment with new technologies and policies while aligning with core government functions;
- Establish strong senior leadership integration to ensure new innovations gain adoption across the agency; and
- Implement cross-agency collaboration models preventing duplication of efforts and encouraging knowledge sharing.

Without an organization-wide framework integrating innovation initiatives into government strategy, new efforts will remain fragmented, duplicative, and inconsistent across departments. Leaders should design their organizations with the authority to enforce adoption, ensuring that transformation efforts move beyond experimental phases to become institutionalized.

Recommendation 2. Use Governance to Define Acceptable Risk and Deliver Results

Entrepreneurial units should design governance structures that drive execution and hold teams accountable for results. CDAO's experience shows that consensus-based decision-making and vague collaboration goals can prevent execution and delay outcomes. Leaders should focus governance on delivering outcomes, making decisions quickly, and clearing roadblocks.

Leaders must empower innovation teams with the authority to experiment, iterate, and implement solutions. At the same time, teams should have direct access to senior decision-makers who can quickly resolve conflicts and remove bureaucratic roadblocks. Governance structures should establish clear decision-making roles, accountability mechanisms, and escalation pathways. By defining who is responsible, who approves, and who must be consulted or informed, organizations can eliminate ambiguity, streamline execution, and enable faster innovation.

Leaders must empower innovation teams with the authority to experiment, iterate, and implement solutions.

To ensure governance drives collaboration and action, leaders should:

- Align governance directly with mission outcomes and agency priorities to ensure innovation efforts deliver real operational impact, not stand-alone policy exercises;
- Establish a clear chain of command with defined decision-making authority and fixed deadlines to eliminate redundant approval layers and prevent delays caused by indecision;
- Tie funding and incentives to collaboration by conditioning budgets and performance evaluations on joint execution and shared outcomes, ensuring multiple offices align and deliver together; and
- Create cross-functional teams with joint budgets and dedicated staff empowered to act without repeated approvals and supported by streamlined procurement and regulatory processes to cut bureaucratic barriers.

Entrepreneurial units should focus governance on mission delivery, not just compliance and consensus. Leaders should ensure oversight and compliance functions enable implementation by streamlining reviews and defining acceptable risks.

CDAO's governance has failed because leaders have been compelled to over-index on devising policies and building consensus instead of delivering outcomes. Leaders therefore never successfully clearly defined who had authority to act and allowed internal friction to stall progress. Future entrepreneurial units should focus governance on action, speed, and accountability for outcomes.

By building execution-driven governance, leaders will ensure entrepreneurial units move from ideas to real solutions. They will create organizations that deliver results quickly, align teams on shared goals, and provide tangible value to the public.

Recommendation 3. Align Funding Control with Decision-Making Power to Avoid Stagnation

Government entrepreneurial units should ensure funding directly supports execution, not compliance-driven mandates from Congress or other oversight

bodies. Government agencies often receive innovation funding that is tightly restricted and subject to many layers of approvals, rendering it difficult to allocate resources effectively. When money and mandate are misaligned, innovation stalls under compliance and gridlock.

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To prevent funding from becoming a bureaucratic burden, entrepreneurial units should:

- Secure the correct authorities to enforce program adoption rather than relying on voluntary agency participation;
- Establish direct budget control to prevent Congressional micromanagement and ensure strategic investment in government innovation programs;
- Implement procurement reforms that promote competition, allowing smaller firms and startups to participate in government contracts instead of favoring large traditional contractors; and
- Align government innovation efforts with immediate agency and public service needs rather than compliance-driven initiatives that lack measurable outcomes.

By integrating such an ambidextrous approach to funding management, government innovation units can dedicate a portion of their budget to experimentation while ensuring successful initiatives transition into full-scale programs. This balance prevents the stagnation that often results when agencies focus too heavily on long-term research at the expense of implementation.

Funding alone does not guarantee success. Government entrepreneurial units should pair financial resources with the authority to execute strategic initiatives, ensuring that innovation efforts yield tangible results rather than being trapped in cycles of justification.

Recommendation 4. Overcome Cultural Resistance by Embedding Innovation in Operational Units

Future government transformation efforts should embed innovation in operational teams rather than functioning as external oversight bodies. New initiatives often fail when leaders impose them from the top without securing buy-in from those expected to implement the changes. Entrepreneurial units should take a

bottom-up approach, ensuring new initiatives integrate with the day-to-day work of agency personnel.

To break down cultural resistance, entrepreneurial units should:

- Deploy innovation teams directly within operational units to ensure hands-on integration;
- Align innovation efforts with immediate agency needs rather than focusing just on long-term theoretical frameworks;
- Build strong relationships with agency leadership to secure buy-in and prevent redundant, competing initiatives;
- Offer competitive incentives to attract and retain top talent instead of relying on short-term personnel rotations creating workforce instability; and
- Shift the focus from compliance-heavy governance to practical implementation delivering measurable improvements in government operations.

JAIC's and CDAO's experiences highlight the risks of misalignment between structure, authority, funding, and cultural integration. Government entrepreneurial units should secure operational authority, streamline governance, align resources with power, and embed innovation within operational units to avoid these challenges. By adopting this approach, government innovation leaders can ensure that new ideas and technologies gain traction without disrupting essential government functions. Entrepreneurial units should act decisively, ensuring that government transformation efforts lead to measurable improvements in efficiency, service delivery, and long-term national competitiveness.

Recommendation 5. Avoid Forced Mergers Without a Clear Integration Strategy

Government entrepreneurial units should avoid merging pre-existing organizations with different missions, cultures, and structures unless they first establish a clear strategy, align leadership, and design an integrated operating model. A merger without a unified mission just preserves silos under a new name. Without deliberate meshing, forced mergers preserve silos, fuel internal competition, and confuse roles and responsibilities.

A merger without a unified mission just preserves silos under a new name.

CDAO's formation shows how poorly executed mergers can weaken government organizations. DoD combined the JAIC, Defense Digital Service, Chief Digital Office, Advana, and parts of Project Maven without clearly defining a shared mission, building a unified structure, or appointing an aligned leadership team. Instead of harmoniously cooperating, these groups continued operating independently and clung to their old identities and priorities. CDAO leadership could not break these silos because they lacked the structural authority and incentives to enforce integration. As a result, CDAO has dedicated more time to managing internal conflicts than delivering AI and digital infrastructure to the department.

As a result, several former senior officials described this merger as a case of government consolidation that rearranged organizational charts without addressing deeper structural and cultural problems, comparable to "rearranging deckchairs on the Titanic"—a task doomed to inevitable failure from the start. Without crafting a clear strategy, defining unified processes, aligning incentives, and holding the organization accountable for cross-team collaboration, mission execution becomes impossible.

Future entrepreneurial units should therefore reject mergers as a shortcut to reform. Instead, leaders should take intentional steps to build unity and organizational clarity. They should:

- Define a clear mission and strategy that aligns all teams before merging organizations;
- ppoint strong leadership and empower them to drive integration and resolve conflicts;
- Design a unified structure with integrated teams and clear reporting lines instead of keeping legacy offices intact under a new name;
- Create shared processes, aligned incentives, and culture-building efforts that require collaboration and accountability; and
- Invest in change management and internal communications to ensure everyone understands the vision, structure, and goals.

Leaders should treat mergers as a last resort and use them only when they commit to managing integration directly and effectively. They should also avoid merging organizations with deep cultural and operational differences unless they also commit to making the necessary structural and leadership changes to support success. CDAO's struggles reveal how mergers without a clear plan can create confusion and conflict instead of progress.

Future entrepreneurial units should build modular and flexible structures that let innovation teams experiment and deliver results while staying connected to senior leaders and agency priorities. Leaders should design new organizations intentionally rather than combining existing ones without a set strategy.

CONCLUSION

The experiences of JAIC and CDAO highlight the challenges and opportunities of embedding innovation in government. While these organizations set out to accelerate AI adoption across DoD, their struggles with bureaucratic inertia, fragmented governance, and cultural resistance underscore the need for a more agile and empowered approach to enact institutional change.

In an era where technological superiority is essential to national security, these lessons offer a roadmap for progress. With clear authority, strategic integration, and aligned incentives, government innovation units can overcome barriers to success and fully harness emerging technologies to enhance decision-making, efficiency, and mission success.

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NOTES

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GLOSSARY

Advana - A Department of Defense (DoD) platform used for data integration and analytics, originally designed for aggregation, not advanced AI deployment.

Ambidextrous Organization - A management structure that balances exploration (innovation, experimentation) with exploitation (efficient execution of current capabilities). Often cited as a model for navigating transformation in complex institutions.

CDAO (Chief Digital and Artificial Intelligence Office) - A central DoD office created in 2022 to lead digital modernization and AI adoption by consolidating several digital units, including JAIC, the Defense Digital Service, and others.

CDAO Council - An internal governance body intended to coordinate AI and digital strategy across DoD leadership, though it often added bureaucratic layers.

Chief Information Officer (CIO) - A senior DoD official responsible for information technology and cybersecurity. JAIC was originally placed under the CIO, limiting its operational authority.

Consensus-Based Decision-Making - A collaborative process where decisions are only made when all stakeholders agree. While inclusive, it can delay action in fast-moving environments like AI deployment.

Defense Digital Service (DDS) - A DoD innovation team that recruited private-sector talent to tackle urgent technical challenges. Known for rapid development but with a distinct culture from traditional defense units.

FFRDC (Federally Funded Research and Development Center) - Nonprofit research institutions that support U.S. government agencies with strategic analysis and technology development under long-term contracts.

Flyaway Teams - CDAO initiatives that embedded AI teams within military units to foster on-the-ground AI adoption. Often under-resourced and lacked enforcement power.

Governance - The systems, rules, and frameworks by which an organization makes decisions and enforces accountability. Effective governance balances control with agility.

JAIC (Joint Artificial Intelligence Center) - Established in 2018 as the Pentagon's central AI initiative, focused on accelerating AI integration across military services. Later absorbed into the CDAO.

Modular Procurement - A contracting strategy that breaks projects into smaller, flexible task orders, encouraging innovation, competition, and faster delivery cycles.

NDAA (National Defense Authorization Act) - Annual U.S. legislation that specifies the budget and policies for the Department of Defense. It often includes mandates for technology initiatives like JAIC and CDAO.

Office of the Secretary of Defense (OSD) - The senior civilian leadership of the DoD, responsible for overarching defense policy, budgeting, and planning. JAIC was overseen by the OSD, which contributed to inter-service resistance.

Operational Commands - Military units responsible for planning and executing missions (e.g., CENTCOM, EUCOM), as opposed to administrative or support functions.

Responsible AI - A policy and design framework to ensure that AI systems are ethical, explainable, unbiased, and safe—especially important in defense and national security contexts.

Stakeholder Power Dynamics - The balance of influence and authority between different actors involved in a program—e.g., Congress, DoD services, private contractors—shaping what gets implemented.

Structural Incentives - Built-in organizational levers (such as budget authority or mandates) that motivate individuals or teams to adopt specific behaviors or align with strategic priorities.

Title 10 Authority - Legal authority granted under Title 10 of the U.S. Code, allowing military leaders to direct operations and manage service components. Lacking this limits enforcement capability.