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## ABSTRACT

The modern operating environment produces more data than any previous generation of military professionals has ever confronted. What was once a fog born of uncertainty is now a fog created by abundance: too many feeds, too many dashboards, and too many “priorities.” The U.S. Army’s pursuit of a data-centric force reflects a recognition that information advantage underpins decision advantage. However, this emphasis risks equating “more data” with “better decisions.” This article argues that the Army’s emphasis on data-driven decisions unintentionally contributes to this problem by encouraging leaders to search for answers within available data rather than beginning with the decision that must be made. To address this challenge, the article proposes a shift to decision-driven data, a mindset that starts with the commander’s decision and works backward to identify the specific information required to inform it. Central to this shift is data discipline, a professional virtue that prioritizes precision over volume and sharp questions over sweeping queries. Decision-driven data restores clarity, tempo, and purpose amid the Army’s expanding data environment and strengthens mission command through faster, better-informed decisions. By asking better questions, commanders gain the decision advantage essential for future conflict.

## A NEW KIND OF FOG

Carl von Clausewitz described war as a realm dominated by fog and friction, where uncertainty obstructs even the simplest actions. Historically, this fog emerged from the absence of reliable information (Clausewitz, 1976). Commanders operated with delayed reports, incomplete intelligence, and limited situational awareness. In many ways, modern warfare appears to have solved this problem. Advances in sensors, networks, analytics, and information systems provide commanders at every echelon with unprecedented access to data.

Yet despite this abundance, uncertainty persists. In some cases, it has intensified. The contemporary operating environment produces a constant stream of intelligence feeds, logistics reports, personnel data, operational graphics, and predictive analytics. While these tools promise clarity, they often overwhelm the staff and slow decisions. The Army’s expanding data ecosystem risks replacing one form of fog with another: a fog created not by scarcity, but by excess.

This paradox exposes a foundational problem in how the Army conceptualizes the relationship between data and decision-making. The prevailing emphasis on data-driven decisions encourages leaders to look first to available data and then derive conclusions. In practice, this approach often obscures what truly matters to the commander at the moment a decision must be made.

To restore clarity, the Army must reverse this logic. Rather than allowing data to shape decisions, leaders must allow decisions to shape data. This article argues for a shift to decision-driven data and the deliberate cultivation of data discipline as essential elements of future decision advantage.

## THE DATA-CENTRIC IMPERATIVE AND ITS UNINTENDED CONSEQUENCES

Over the past decade, the Department of War and the U.S. Army have made data central to their modernization strategies. The Department of Defense Data, Analytics, and Artificial Intelligence Adoption Strategy emphasizes accelerating decision advantage through improved access to data and advanced analytics (DoD, 2023). Similarly, the Army Data Plan articulates a vision of a force in which data is visible, accessible, understandable, linked, trusted, interoperable, and secure (VAULTIS) (US Army, 2022).

These efforts reflect a legitimate recognition: Modern conflict is information-intensive, and the Army must compete in an environment where adversaries also exploit data at scale. The integration of data literacy into professional military education reinforces this commitment by ensuring leaders can interpret, communicate, and question data effectively. However, these initiatives have also produced unintended effects.

**FIRST**, they create a cultural expectation that more data equates to better decisions. The staff is incentivized to collect broadly rather than selectively. Information becomes something to accumulate rather than to refine.

**SECOND**, the proliferation of digital tools expands the number of potential sources without necessarily improving coherence. Analysts spend increasing amounts of time navigating systems rather than synthesizing insights. Commanders receive products rich in detail but poor in prioritization.

**THIRD**, decision tempo slows. When every dataset appears relevant, the staff struggles to distinguish the signal from the noise. As Nate Silver (2012) argues, without strong priorities and disciplined questioning, abundant data amplifies error rather than reduces it.

These dynamics reveal a critical insight: The challenge is no longer access to data, but discipline in its use.

## FROM DATA-DRIVEN DECISIONS TO DECISION-DRIVEN DATA

The phrase “data-driven decisions” implies that decisions emerge from the data itself. While attractive in theory, this framing subtly misplaces agency. Data does not decide; commanders do. When leaders expect data to reveal

answers on its own, they risk mistaking correlation for relevance and availability for importance. Decision-driven data reverses this logic.

Rather than beginning with existing datasets, decision-driven data begins with a clearly articulated decision. Only after the decision is understood does the staff identify what information is required to inform it. This approach imposes structure on analysis and prevents unnecessary collection.

At its core, decision-driven data asks a simple but powerful question: “What decision must the commander make, and what information is essential to make that decision with confidence?”

This shift produces immediate benefits:

- It forces clarity on the decision itself.
- It aligns staff effort with commander intent.
- It narrows information requirements to what truly matters.
- It protects time and cognitive bandwidth.

Decision-driven data does not reject analytics or technology. Instead, it ensures that these tools serve a defined purpose rather than drive unfocused exploration.

## DATA DISCIPLINE AS A PROFESSIONAL VIRTUE

Adopting decision-driven data requires more than procedural change; it demands a cultural shift. This shift is captured in the concept of data discipline.

Data discipline is the professional habit of preferring less but better data. It is the willingness to resist broad, unfocused information requests and to insist on clarity before collection begins. Data discipline recognizes that every request carries opportunity costs in time, attention, and effort.

Data discipline requires leaders to accept that:

- The staff cannot collect everything.
- More data can obscure rather than illuminate.
- Not all “nice-to-know” information contributes to a decision.
- Time spent searching for irrelevant data steals time from preparing for future decisions.

This disciplined approach requires emotional maturity from leaders and analytical rigor from the staff. It means resisting the instinct to demand every possible dataset “because we can.”

For example, a commander preparing to commit a reserve might ask, “Where is the enemy main effort?”

With data discipline, the staff reframes this requirement into precise, actionable questions:

- “Which enemy formation has the capability to penetrate our main defense belt within the next 12 hours?”
- “What is the mobility status of the reserve’s primary route?”
- “Does the reserve have fuel and ammunition for a 20 km movement and immediate engagement?”

These sharper questions drive intelligence, sustainment, and maneuver inputs tied directly to the decision instead of broad data-mining of enemy positions. This is data discipline at work.

Decision-driven data and data discipline also align closely with existing Army doctrine, particularly as articulated in ADP 5-0: The Operations Process (2019) and FM 5-0: Planning and Orders Production (2022). These publications emphasize that commanders make decisions through understanding, visualization, and direction, and that the staff exists to support those decisions. Essential to supporting those decisions is the development of commander’s critical information requirements (CCIRs).

The CCIRs are doctrinal tools intended to focus information collection on decisions. In practice, however, they often devolve into broad reporting requirements detached from specific decision points.

Examples include:

- “Report enemy movement in sector.”
- “Report significant changes in weather.”
- “Report casualties exceeding ten percent.”

While informative, these statements do not explicitly connect information to a decision. Decision-driven data demands that each CCIR be tied to a clear decision.

For example:

**Decision:** Commit the reserve.

**CCIR:** Identify any enemy formation capable of breaching the main defense within the next 12 hours.

**Decision:** Displace the tactical command post.

**CCIR:** Identify threats that compromise survivability at the current location.

By explicitly linking CCIRs to decisions, the staff transforms collection from passive reporting into purposeful support.

## MISSION COMMAND AND ARTIFICIAL INTELLIGENCE

Mission command depends on shared understanding and disciplined initiative. Decision-driven data reinforces both by clarifying priorities and empowering subordinates to focus on what matters most. When the staff understands the decision they are supporting, it can exercise initiative in collection and analysis without overwhelming the commander in detail.

Emerging technologies promise to process vast quantities of data faster than any human staff. Yet artificial intelligence and machine learning systems are only as effective as the questions they are designed to answer. Without decision-driven framing, algorithms can surface irrelevant correlations.

Decision-driven data ensures that advanced tools enhance, rather than distort, human judgment providing the cognitive structure necessary for effective human-machine teaming.

## A CULTURAL SHIFT, NOT A TECHNICAL ONE

Implementing decision-driven data does not require new offices, new policies, or new systems. It requires leaders to ask different questions.

To operationalize the cultural shift, units cultivate several core habits.

### Cultural Habits of Decision-Driven Units

- **Begin briefings with the decision, not the data.**
- **Tie every information requirement to a decision point.**
- **Push back on vague requests (“I need everything on...”).**
- **Teach junior officers how to frame questions with precision.**
- **Treat “data discipline” as a leadership skill, not a technical one.**
- **Periodically review CCIRs to ensure they remain decision relevant.**

These habits create units that use data purposefully, not passively.

## THE NEW DECISION ADVANTAGE

In future conflict, decision advantage will be measured not by the volume of data available but by how efficiently a force turns understanding into action. Adversaries with access to similar technologies will also possess vast amounts of data. The differentiator will be the ability to determine what truly matters, ask the right questions early, align collection against those questions, and make decisions faster and with greater confidence.

Decision-driven data and data discipline create that advantage. They empower the staff to separate essential information from background noise. They help commanders regain tempo. They restore clarity where digital systems have introduced clutter. And most importantly, they prepare the force for complex, multidomain competition where cognitive speed, not data volume, determines success.

## CONCLUSION: RESTORING CLARITY THROUGH BETTER QUESTIONS

The Army has made significant strides in data literacy, modernization, and analytical capability. These are necessary investments but without the mental shift to decision-driven data, even the best tools will struggle to cut through the complexity of modern conflict. The solution begins with asking better questions.

By cultivating data discipline, leaders can focus their staffs on relevant information, reduce wasted effort, and provide commanders with the precise clarity they need to act. Decision-driven data restores the commander's ability to operate inside the enemy's decision cycle, not by collecting more data, but by choosing the right data.

In an era where information saturation threatens to slow military decision-making, the ability to ask the right question is not a soft skill, it is a warfighting necessity.

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