



by Jack Hadley and Addison McLamb

We all know bad decisions when we see them. For example, the commander who can't 'decide' to stop talking at Friday formation, the NCO so entrenched in his ways he can't accept the simple solution in front of his face, or the platoon leader on a patrol stupidly deciding to turn left. At the same time, it feels difficult to pinpoint the causes that distinguish good and bad decisions, even though we feel their effects in our bones.

In July 2020, to identify and assess cognitive factors affecting decision-making, the Army launched the [Army Critical Thinking Test](#) (ACTT). The ACTT's 45-minute multiple-choice Army-style GRE measures the critical thinking skills of analysis, inference, conjecture, and integration, with questions pertaining to hypothetical Army situations, such as deducing the timeline of a significant action (SIGACT) based on spotty intelligence reports. Test results capture absolute performance ("80% correct on questions measuring analysis") and relative performance ("75th percentile in integration") to provide an overall measure of the test-taker's critical thinking skill. The ACTT's second part is a metacognition self-assessment

## Information Quality's Outsized Effect on Decision-Making

capturing the categories of focus, cognitive flexibility, and emotional regulation. Respondents answer questions like "Before making big decisions, I assess my gut feelings" along a spectrum from "Never like me" to "always like me." There are few 'right' answers to this second assessment, only honest ones, and results are given only relative to other peers' responses.

In our opinion, the ACTT is well-designed, challenging yet reasonable, and the results are valuable for self-development. This is a significant outcome-equipping leaders, at relatively low cost, with the self-knowledge required to become better decision-makers. If the success or failure of our Army depends on the decisions made by leaders at all echelons, the ACTT can play a real role in improving leaders' decision-making, and therefore greatly influence our mission success.

The ACTT is an excellent starting point for assessing cognitive factors that feed decision quality. But we would like to propose a third key *uncaptured* variable affecting decision-making, which the Army and its leaders should formally identify, define, and assess: information intake.

### Information Quality's Centrality to Decision-Making

Information is logically prior to critical thinking and metacognition. Information is the raw material we digest via critical thought to produce decisions. In [the language of John Boyd's](#) famous OODA loop, information is what we *observe*—before we can *orient*, *decide* and *act*. Yes, deciding absolutely depends on reasoning and logical skill (i.e. critical thinking). But critical thinking is a secondary skill of assessing and rearranging information, and knowing which information to look for next. Garbage in produces garbage out.

The perfect leader will still make bad decisions if they unknowingly reason from the wrong information. Let's say for example that battalion staff, including the S-4, mistakenly reports to an infantry company commander that there are no mortar rounds currently on hand for the battalion's organic mortars. In reality, there are rounds available, but in this case, the S-4 and distro teams were not tracking; the commander had received bad information. His mission is to conduct a raid on a guarded building complex in order to identify and destroy an enemy supply depot. Of course, despite this (incorrect) information, the commander employs his critical thinking and metacognition skills to develop a tactical plan. He reasons from the information inputs given to him. He decides to assume risk by moving the support-by-fire element within direct fire range without the support of mortar suppression.

The mission goes awry. The unsuppressed enemy guards prevent the commander's

achievement of fire superiority in his support-by-fire element. The maneuver element never meets the trigger to conduct a flanking movement. The company must withdraw under pressure. The mission failed—because of bad information.

If decision outcomes are largely dependent on information quality, we should take great measures to ensure we leaders intake high quality information, both professionally and personally.

But there is no easy way to ensure peak information quality or to assess it. Every person lives and works within different information ecosystems, with their own education, expertise, interests, and processing habits. Some scenarios, like the above, require interpersonal tact to confirm informational accuracy; others require deep domain knowledge. Nonetheless, there are some information navigation challenges common to us all.

### **Navigating Information Superabundance**

The most pressing modern information intake challenge is navigating information superabundance. Right now, nearly one million podcasts are actively releasing content. Each day roughly 2,700 books are published in the United States alone. Our information problem is no longer one of access, but one of filtering, or discernment, and this is a landmark shift in human history. William Jones said that “wisdom is the art of knowing what to overlook.” We can take this advice and maximize the quality of our information inputs by measuring and improving our information intake along three axes: quantity, quality, and retention.

### **The Challenge of Quantity: *Break Your Information Bubble***

The best way to take advantage of information superabundance is to diversify our information intake to increase its quality. Oversaturating ourselves with similar types of information reduces the benefit of each moment receiving that information. For instance, someone who reads the news on three different news apps, subscribes to two foreign relations magazines, and listens to four different political podcasts reaches information redundancy. This person can avoid making an echo chamber for himself by replacing political news with an adjacent information source—for example, economics reading—or something even more different, like a fashion YouTube channel. With algorithm-based social media, diversity can be even harder to obtain since an algorithm-induced ‘[filter bubble](#)’ feeds you information consistent with your reliable, established interests. If we read, listen to, or watch the same hot take five times over, which alternative views are we missing? This

is the biggest challenge facing leaders in terms of information quantity.

### **The Challenge of Quality: *Employ Azimuth Checks***

Most information consumption is zero-sum - as we're paying attention to one channel, we're ignoring the rest. Common sense tells us not all information is created equally - there's a difference between financial textbooks and financial TikToks. This does not mean we must always opt for the 'high-quality' textbook; occasional indulgence is of course healthy. But decision-makers must be conscious of their intake, and vigilant to ensure overall quality. Therefore, leaders should prioritize regular (say, quarterly) 'information azimuth checks'. By this, we mean a semi-formal self-examination to monitor (and adjust as necessary) one's information intake habits. In practice, this can look like re-assessing email subscriptions, upgrading to the paid version of a digital news source, temporarily deleting the Instagram app, analyzing screen time data, or reaching out to new people for reading or viewing recommendations. By incorporating a loose rhythm of information review, leaders can increase information intentionality and therefore maximize its quality.

### **The Challenge of Knowledge Retention: *Consolidate Information Gains***

Knowledge is only as valuable as our ability to recall it. We are constantly absorbing new stimulation, both actively and passively. Most of this lives and dies in short-term memory, never making its way into the deeper comprehension and recollection systems of our brain (sometimes called the "System 2" function). Yet - if we can't remember what we watched or read two weeks ago, what was the point? Of course, no one should expect to remember every detail, but we should generally expect some lasting value from our information consumption.

For improving information or knowledge retention, it can be helpful to slow down on new inputs, to consolidate information gains. One method is creating some sort of information journal or note-taking system. For example, I (Addison) like to dog-ear book pages the first time through, when a passage resonates with me (e-readers have digital methods for this too). After finishing the book I circle back to the notes and decide which information to keep. Usually, most notes no longer resonate the second time through. For the notes that do, I consolidate them into a digital journal. This method cuts down information superabundance into important, impactful, and retainable nuggets. I can reference them later with ease. More importantly, those excerpts - whether from stories, memes, or essays - become part of what and how I think. They become my working knowledge, with lasting impact years afterward.

Another way to improve retention is to simply intake less information in our free time. That could mean putting down the phone, closing the book, or turning off the TV. Instead, try a (phoneless) walk, or even reflective silence. Entrepreneur and author [Luke Burgis argues](#) that “today there is a public health crisis of noise.” He quotes philosopher Blaise Pascal: “All of humanity’s problems stem from man’s inability to sit quietly in a room alone.” Though perhaps both overstating the point, Burgis and Pascal direct us to a rarely proposed solution to the problem of information intake: sometimes just stop.

### Conclusion

Leaders make decisions, and good decisions require good thinking. The Army has recently begun quantifying good thinking in terms of critical thinking and metacognition, excellently embodied in the ACTT. Still, we argue that a third pillar for assessing good thinking should be the quality of a leader’s information intake. Our brains are not static systems, we are not born with a preset calibration of premises, facts, or information.

Rather, our minds are growing and malleable, changing with time, and altered by the materials they consume and produce, just like our bodies respond to our nutrition and exercise. Therefore, filtering the information we consume matters. Leaders mindful about information intake quality can maximize their ability to connect dots, spot patterns, recall facts, and make optimal decisions under stress.

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