

Creative Thinking for Senior Leaders

An essay on creative thinking for military professionals

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Leadership at all levels is involved with tackling existing problems and anticipating threats and opportunities that may emerge for the organization and the attainment of its goals. Rarely are those problems identical; many important issues facing strategic leaders require novel approaches. Consequently, solutions to tough problems require creativity and innovation from members of an organization if it is to adapt and thrive in a competitive landscape. The greater challenge for senior leaders that extends beyond individual problem solving is the development of *organizations* that have the capacity to adapt to accelerated change and the unpredictability of the future. Such an activity (to improve the ability to shape and interact successfully with the external environment) has been touted as characteristic of a learning organization. In *The Fifth Discipline*, Peter Senge defined a learning organization as one that “is continually expanding its capacity to create its future.”¹

A commonly-used definition of creativity is the ability to produce novel ideas that are valued by others. Because of the need to provide new and effective approaches to challenges, creativity is required of individuals, groups, and organizations at the tactical, operational, and strategic levels. Creative Thinking skills also facilitate the understanding of the interaction that occurs between the organization and its external environment.

The national security and contemporary operating environments have been characterized as volatile, uncertain,

complex, and ambiguous (VUCA).² Operating effectively in this context requires that senior leaders have the sophisticated cognitive skills to match the multiple demands of such an environment. Leaders in the 21st Century must be versatile and agile—to adapt when necessary and learn quickly. Creative thinking therefore, is a critical element of strategic thought and is necessary for successful leadership of our military. Consequently, our senior leaders must be skilled in developing and applying creative strategies to circumstances about which we have limited current knowledge or understanding.

For our military, creativity has an even greater sense of importance and value. Our profession requires its senior leaders to be strategic thinkers. Our U.S. Army War College (USAWC) faculty defined strategic thinking as “the ability to make creative and holistic synthesis of key factors affecting an organization and its environment in order to obtain sustainable competitive advantage and long-term success.”³ We anticipate that competitors and future adversaries will seek to gain any potential advantage and will rapidly adapt to changing circumstances. Accordingly, the need for creativity and innovation in the ranks requires our senior leaders to foster an organizational climate which can compete effectively under demanding conditions.

This essay begins the examination of student roles as individuals and as members of executive groups including during their year at the USAWC. We expect students to apply creative and critical thinking skills to

the myriad scenarios they will face during the academic year.⁴ Through a presentation of foundational concepts of creativity and then addressing individual creativity and group dynamics, we hope to increase awareness of how individual preferences and creative style may help or hinder contributions to group efforts. We will also review functions that are characteristic of effective groups and processes that support group creativity and innovation. To that end, the goal is to enhance student learning and increase their effectiveness as strategic thinkers during this year and beyond.

Throughout this curriculum, we operate under the premise that the individual attributes and skills that USAWC students possess have served them well in past assignments and will also be valuable in the future. However, we caution the students to remember that they are now at the position where those skills, while necessary, may be insufficient. Executive coach, Marshall Goldsmith offered that “what got you here, won’t get you there.”⁵ The attainment of new skills and competencies, specifically in individual creativity and maintaining a creative climate, are required for success at the senior levels of our institutions.

We hold the following assumptions:

- Everyone is creative
- Everyone is motivated to solve problems, hence seeks to be more creative and effective
- There are processes that can improve individual and group creativity
- Creativity is absolutely essential for effective leadership of organizations.
- Organizational processes that support creativity lead to better long-term performance.

Foundational Concepts

Barriers to Creativity

Given that creativity and innovation is so desired, why is it that they seem to be such rare commodities? Roger Von Oech tells us there are several attitudes that serve as barriers to creativity that he labels as “mental locks.”⁶ These attitudes are mostly developed through social interaction with others and the requirement to fill the roles we have been assigned. To fulfill our need to belong, we choose not to be different so practicality and conformity take precedent. As adults, we marvel at the creativity exhibited by children, but within our education system, we stress “rational,” linear, and standardized approaches that provide rules for everything. We emphasize that problem solving is serious business and thus requires somber effort. We seek to minimize deviations and errors by following set procedures in the quest for the optimal “right” answer. Wrong or just-good-enough solutions are viewed with disdain. In *A Whole New Mind*, Dan Pink asserted that this predominantly left-brain thinking (seeking rational, systemic, and predictable patterns), characteristic of the United States in the 20th Century, is no longer sufficient in this new century.⁷ We also have become victims of our own achievements as individuals and within organizations so we default to ways of thinking and acting that have made us successful in the past.

Some who have studied military innovation suggest that the culture of the United States military over the last half-century reflects these same attitudes and that the Army is not a learning organization.⁸ Clearly, battlefield requirements have driven tactical innovation within operational units, some of which have compelled changes in the institutional force. However, the military’s use of standard operating procedures (SOPs), regulations, and doctrine are designed to provide control over how people and organizations behave without tolerating departures from the “tried and

true.” Military training curriculums often follow very structured programs of instruction (POIs) to teach specific knowledge and competencies—what to think and how to react to situations.

Other observers further assert that the Army’s personnel selection and promotion process results in senior leaders who are limited in their ability to think or act “out-of-the-box.” Consider the fact that the majority of U.S. Army War College students have a Myers Briggs Type Indicator profile of STJ. But you should also consider that, at the individual level, historically almost 70% of the students have a Sensing preference, over 80% have a Thinking preference, and 70% have a Judging preference. Contrast this with the profile types where creative individuals tend to be more intuitive (“N”) rather than sensing (“S”), more thinking (“T”) rather than feeling (“F”), and more perceiving (“P”) rather than judging (“J”).⁹ While the MBTI type profile is not predictive in all situations, it does inform how most Army senior leaders *prefer* to act in stressful conditions.

What is Creativity and when is it needed?

Creativity is the ability to develop new ideas and concepts that are effective in resolving situations at hand. You may have noticed that I did not say “solve a problem.” Creativity is as much about observing both the internal and external environment to identify and define problems as it is about problem solving. Particularly at the strategic level, we must be sensitive to how we even *define* problems since very often, the specificity or breadth of the problem statement will limit the generation of viable solutions. The terms “novelty,” “quality,” and “appropriateness” are commonly used in definitions of creativity. These terms apply equally to problem definition as well as to the other components of decision making processes (developing alternatives, etc.).

To help us understand when to use creative problem solving, Puccio, Murdock, and Mance offer, in *Creative Leadership*, that effective problem-solving depends on the nature of the problem and the approach (see Figure 1).¹⁰ It is essential for leaders to determine the nature of the problem and well as an appropriate approach to address the problem.

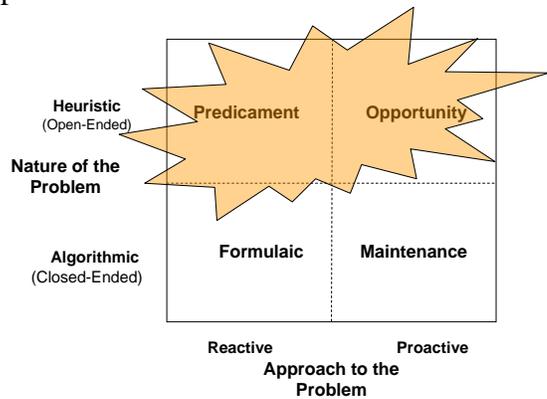


Figure 1.

Some situations are routine and have well-defined solution sets. This type of problem is close-ended where a systemic process (i.e., following an algorithm) achieves the best or accepted solution. If the approach to the problem is proactive and forward thinking then the situation is classified as requiring **maintenance**. Changing the engine oil of your car every 3000 miles to assure reliable transportation is a routine action and a proactive measure. If there is a need to respond to an undesirable state for which there is a known remedy, then the action is **formulaic**. Adding a quart of oil when the oil pressure light comes on should correct the situation and be expected to cause the light to extinguish.

For open-ended problems that do not have set procedures to address situations or commonly accepted solutions, we appeal to heuristics or “rules of thumb” for resolution. In cases where the resulting circumstance is unforeseen, the approach is reactive and we are faced with a **predicament**—a problem

to be solved. Such a condition exists when your car stops for no apparent reason and you are unable to get it started again. Your response may be to check for a loose connection at the battery terminal since you recall that was the case the last time it happened. For the proactive approach, the problem-solver sees potential for improvement and frames the situation as an **opportunity**. Joining a commuting network (e.g., Slug lines in the D.C. area) that shares rides and thereby, eliminates the need for a privately-owned car for local transportation is an innovative approach. Creative thinking and problem solving is most valuable for open-ended problems over those that are close-ended with routine solutions.

These points can be also illustrated using a personal health and fitness metaphor. Proper nutrition and exercise is a proactive way to maintain individual health and fitness. To recover from unwanted weight gain after the holidays, dieting and increased exercise are accepted formulaic responses—i.e., eat less and sweat more. If one suffers from unexplained muscle pains and lethargy, then that is a predicament to be addressed by exploring the potential causes that affect health. Looking beyond the purely physical aspects, such as taking an opportunity to participate in a spiritual program is a proactive approach to health and fitness—trying something new and non-traditional.

As we learn what works by creatively addressing situations, it is desirable to move problems from open-ended to close-ended ones with routine actions that provide acceptable solutions. This frees us to apply our creative energies to new circumstances and wrestle with tough issues. As you may have experienced, creative thinking may not come naturally and is hard work. As a senior leader, one of your value-added functions is looking forward to creating or seizing opportunities and to focus efforts towards overcoming challenges. Perhaps the most

challenging aspect of senior leadership is building a creative climate of openness and flexibility in an inherently bureaucratic organization that seeks optimization through control.

Creativity as a process

Creative Thinking is a cognitive process that supports divergent and convergent aspects of problem-solving and decision-making. Thinking creatively provides a means to identify that a problem exists and, therefore, helps with problem definition. It also gives rise to the generation of multiple alternatives and a range of options in this divergent component. Through the application of critical (convergent) thinking, the alternatives are analyzed and judged for effectiveness and appropriateness in solving the problem. The convergence on the problem solution results in a decision for implementation. However, our predilection for quick answers and easy solutions hinders the process of divergent and convergent thinking.

As Figure 2 depicts, when faced with a challenging situation individuals and organizations limit themselves to what they know—the comfortableness with the area of familiarity.¹¹ We are self-constrained in generating ideas and options, and impose boundaries on the solution sets. Our challenge is to push outward from our comfort zone and enter the area of discovery. This expansion to the areas of discovery is particularly important for military officers who are often rewarded for “making decisions and getting on with it.” While the divergent nature of creative problem-solving requires additional time, the value is that it encourages greater exploration of concerns and issues, unconventional problem identification, and “non-standard” alternatives.

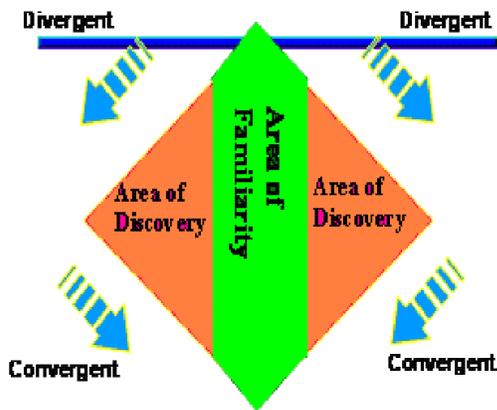


Figure 2.

Individual preferences and creative style

Research on creativity has revealed many attributes and competencies that are recurrent in individuals and organizations that are generally perceived as innovators. Diane Halpern in, *Thought and Knowledge*, presented the following as key elements of creative thinking:¹²

- Stretching and rejecting paradigms
- Problem finding
- Selecting relevant information
- Generation, exploration, and evaluation
- Insight and incubation
- Analogical thinking (lateral versus vertical)

USAWC course exercises serve to reveal personal factors related to creativity that are posited by Teresa Amabile in *Creativity in Context*.¹³ The Amabile model of creativity presents a framework composed of task motivation, domain-relevant skills, and creativity-relevant processes. Presumably, USAWC students display a high degree of motivation to complete tasks based on the competitive nature of the individual or just a desire to fulfill the expectations of the instructor. The breadth of knowledge and experience base is another important factor in the type of solution presented. The more

innovative solutions seem to be extracted from other domains. The ambiguity with the instructions and the inability to ask questions can be frustrating for some, but for others, it opens the door of possibilities. However, under these conditions, there is an opportunity to be foolish, have fun, and take risk in a non-threatening environment.

Throughout their careers, U.S. military officers have undergone a number of assessments that were intended to increase self-awareness and identify areas of strength and those areas for improvement. Our students have the opportunity to participate in the USAWC Leader Feedback Program (LFP) where they are administered a series of personality and behavioral assessments in a number of areas that we hold are important for success at the levels of senior leadership. Participants receive individual feedback on the results—feedback that highlights the complex interaction between leadership, health, and fitness at the strategic level.

The LFP uses a battery of assessment tools to enhance student self-awareness of their leadership style and behavior, including a 360-degree strategic leader behavior assessment, a detailed personality measure (the NEO PI-R), and a team roles measure. Also included are the results of the Myers Briggs Type Instrument (MBTI). The detailed, comprehensive feedback provided by trained staff addresses the concept of creativity in several ways, including behavioral feedback on encouraging and responding to change; detailed personality facets of openness to change, flexibility, and imagination; and team roles components of developing and implementing new ideas. Given the specific details associated with this process (and their unique outcomes), we strongly encourage each student participate in the LFP process. Moreover, because the details associated with such feedback are greatly individualized, it is necessary to take a broader look at the relationship between

personality and creativity by focusing on a more course-grained personality measure: the MBTI.

The MBTI has four factors that help describe an individual’s creative style: 1) where you draw your energy, 2) how you gather information about the world, 3) how you prefer to make decisions, and 4) how you organize your life.¹⁴ The USAWC offers a very informative and entertaining lecture by a noted MBTI expert that illustrates the profile archetypes, but more importantly, it provides insights on how individuals approach creativity. The stereotypical USAWC student with an ESTJ or ISTJ profile, (typically, greater than 50% of USAWC students, as discussed earlier) may feel that s/he is not that creative but rather, an *efficient* problem solver.

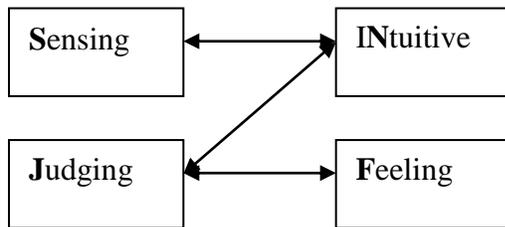


Figure 3.

Kroeger presents the “Z-Problem Solving Model” (Figure 3) suggesting that individuals in groups can use their multiple profiles to effectively solve problems.¹⁵ The Sensors of the group look at facts and details. Intuitives can employ their imagination to brainstorm various alternatives. Thinkers excel at objective analysis and consideration of consequences. In conjunction, the Feelers can evaluate with their unique insight how the proposed solution may affect others. In the end, all of these preferences bring a unique and valuable perspective to the problem-solving process. It is the strategic leader’s role to integrate these multiple perspectives so that the better decisions are made for the organization.

While people often work effectively outside of their preferences, it is easy to imagine that preferences, whether measured by MBTI or other instruments, have implications for how individuals approach creativity. Introverts may have a hard time brainstorming in a group setting. SJs may focus on collecting data from reliable sources and then making lists of solution sets, quickly dismissing non-standard actions and recommendations as “unfeasible.” Innovators may tend to start with a blank sheet of paper and re-define the problem in complex abstractions. In any case, there are strengths for each profile and areas for improvement that can enhance creativity. Specific techniques are presented by Halpern to further develop individual creative skills.¹⁶

Individual and team roles

To overcome some of the barriers to creativity that individuals naturally possess, Von Oech presents four roles—Explorer, Artist, Judge, and Warrior as essential for developing, selecting, and implementing creative solutions to problems.¹⁷ Individuals must consciously assume these roles as appropriate and address the obstacles of personal preferences.

The Explorer is a seeker of information from several sources, always on the lookout for something new and interesting. It is this role that collects information, asks questions, and is always on the prowl. The Artist is the creator that is able to piece together existing ideas in new combinations or to generate new ideas. The Artist is the experimenter who is willing to try out concepts, is willing to fail, and is willing to try again in order to learn from the experience. The Judge applies analysis and evaluation to the ideas in order to decide which problem solution to pursue. This is a role for which many of us have been trained

and quickly move to—gather the data, assess, decide quickly, and then act is our model of a military leader. But it is also the *third* step in the process; one challenge for successful strategic leaders is to devote time to the specific consideration of the first two roles (Explorer and Artist).

Finally, the Warrior is the implementer of the solution. Through perseverance, passion, and the influence of others, the Warrior is able to follow a plan through to its fruition. This role is the one that military members are the most comfortable with—the focus is directed toward accomplishing the mission and overcoming any and all obstacles. In order to be effective creative problem solvers, the mantels of each of these four roles should be worn.

Other authors present various categories of roles that support creative thinking and use similar concepts. In so doing, the use of a framework can foster collaboration among individuals, increase productivity of groups, and increase creativity and innovation within organizations.

Consider the following. In a problem-solving team, there are two fundamental challenges: managing the team and solving the problem. If leaders fail to understand their own perspectives, as well as the individual and team processes involved, they will never get past focusing efforts on the team dynamics. Understanding and managing the team is a prerequisite for the team's ability to most effectively solve the problem. This discussion provides insight into the process of managing the team. However, the importance of the interpersonal dynamics for creative problem-solving demands more on the subject.

One of the instruments of the LFP requires students to describe how they have functioned in the past within a team or group setting. Belbin identified eight team roles or functions that should be accomplished for

effective team performance.¹⁸ The functions that members fulfill within groups are listed below with short descriptors:

- Generate and provide new ideas (innovative, with a vision for the future; creative)
- Serve as a catalyst for group action (inquisitive, extroverted; like to build on the ideas of others)
- Be practical (reliable and conservative; realist that gets work done)
- Be the driving force (dominant, authoritative, decisive; driving toward objectives)
- Be supportive of group members (sympathetic, considerate; draw upon the best from others)
- Consult with others (even-tempered team players)
- Be a critical judge (calm critic; source of quality control), and
- Detail type (meticulous with detail, orderly, possibly compulsive)

One has probably noticed that some of the attributes from the MBTI and the LFP are used to describe the contribution of individuals to team efforts. Providing new ideas is important for the team to consider while the other members attempt to modify existing processes to solve novel problems. The MBTI Extrovert provides the spark that serves as the catalyst for team action. Von Oech's Warrior is decisive and pushes the team to accomplish its goals. The MBTI Feeler is aware of the importance of interpersonal relationships and can help Von Oech's Judge in selecting a solution.

The point is that individual preferences affect the roles that we prefer within groups so we should be aware of their potential impact. While the Leader Feedback Program will provide feedback on each of the eight roles, a modified version of this measure, titled the Adaptability Portfolio, selects three

roles most closely related to openness and creativity: Catalyst, Driving, and New Ideas. Feedback derived from the Adaptability Portfolio provides insight on the preferred roles as members of a problem-solving team and the implications of those roles. Awareness also informs us that we may have to assume certain roles even though they may be out of our comfort zone in order to support team creativity and performance.

Processes for group creativity

Research by Taggar identified specific individual factors that are important in determining group creativity.¹⁹ The premise is that individuals with their personality preferences and abilities can behave in a manner that contributes to the creativity of the group when the appropriate team processes are in place. There are three main categories that seem to influence group creativity: task motivation, creativity-relevant processes, and team creativity-relevant processes.

Task motivation focuses on two areas: commitment of individual members to the team, and focus of the members on the task at hand. Motivated members accept the goals and norms of the team and direct their energies to accomplishing the task.

There are certain processes at the individual level that reflect the behavior of group members and that are relevant to generating creative ideas. Taggar referred to these as **creativity-relevant processes**. These are:

- Individual preparation
- Openness to new ideas and the
- Synthesis of the ideas of the team,
- Establishing personal goals
- Development of a strategy to achieve the team goals, and

- Active participation by individual members of the teams.

As we saw in Belbin's team roles, individual behaviors must align with the required functions for effective group performance.

There are also several processes that are important for generating ideas and solving problems. Taggar designated these as **team creativity-relevant processes** where the interactions among the team's members support the application of individual creative resources and result in creative group performance:

- Team Citizenship
- Performance Management
- Effective Communication
- Involving Others
- Providing Feedback
- Conflict Management

The main processes for effective and innovative groups involve communication of goals and expected behaviors, coordination of the activities and contributions of members, and the handling of conflict.

There must be a process to allow for effective communication that enables other members to contribute ideas, to listen to the ideas of others, and to maintain supportive relationships within the team. Individuals must feel that they are contributing members of the team and are therefore valued citizens. There must be a mechanism to monitor the performance of the task and the adherence to established milestones.

Given the interdependent nature of groups, there must be coordination among the members of the team that ensures the involvement of others and encourages input from all members of the team. There should also be a shared responsibility of providing feedback to others. This feedback should be both positive and negative in order to

provide a critical assessment of ideas. We see that high-performing groups are self-monitoring—they actively seek information about their performance and undertake their own actions to better achieve team goals.

Another important process is the handling of conflict. Members must appropriately react to conflict and be willing to address conflict when necessary. They must understand that some degree of conflict is helpful, but should also be aware of how to avoid, or diffuse potentially disruptive conflict.

In summary, Taggar's research found that there is a relationship between individual attributes, the behavior of individuals within groups, and the creativity of groups. What we see is that given the abilities and skills of individual members, the effective use of the specific processes will support group creativity. Individuals that function as viable members of the group can contribute creative ideas in conjunction with and in support of others. They must prepare for the task and feel like citizens who have responsibilities to the group. They must be willing to listen to and synthesize the ideas of others. They must have set goals that they are motivated to attain and they must participate in the creative endeavors. When individuals function as members of a team, we find that Taggar's processes are helpful in supporting creativity. When groups consciously think about and apply these processes, they tend to be more creative and innovative.

Conclusion

So what does this have to do with our students' creativity and leadership? Personal skills and preferences will influence creative style. The MBTI assessments should not be a surprise—the data comes from the person completing the instrument. The same applies to the Team Roles assessment and the

Adaptability Portfolio that students receive with their LFP counseling. The assessments provide a self-awareness of their comfort zones and how they prefer to behave in groups. We suggest that students use that information to manage themselves and other members of the seminar.

During the course of this year and beyond, students will be members of groups that will be presented with situations ranging from trivial to just plain hard (VUCA will reign). Each block of the core curriculum has at least one exercise that requires group work. The capstone event for the USAWC year is the Strategic Decision Making Exercise (SDME) which provides the opportunity to employ the many concepts of strategic leadership, strategy and policy formulation, and theater-level operations. The SDME will take students out of their comfort zones of experience and expertise. They will work with other students that are role playing positions in higher level staffs and agencies. The exercise will require collaboration and peer leadership to address the problems presented for resolution. So, throughout the year students are encouraged to work on developing relevant skills and overcoming personal barriers to creativity so that they will be contributing members of groups that generate novel and workable solutions to unique problems. That may mean assuming some of the functions required for effective creative problem-solving teams. The self-awareness gained through the MBTI and LFP assessments combined with the roles identified by Belbin and Von Oech can support creative pursuits as an individual and as a member of a team.

There will be ample occasion for students to practice the five discovery skills attributed to successful creative executives.²⁰ *Associating* ideas from the core courses and personal experiences facilitates connections from seeming unrelated fields. *Questioning* underlying assumptions, asking

“what if?” and embracing paradoxes helps to clarify core issues. *Observing* behaviors internal and external to one’s own group may identify useful best practices. *Experimenting* to test ideas, concepts, and hypotheses builds personal knowledge. Finally, *networking* with diverse individuals and groups provides access to unrealized information and resources.

Being innovative requires openness to not only new ideas, but also being open to new experiences. As former Chairman, Joint Chiefs of Staff, Admiral Mike Mullen remarked about his experience in civilian business school executive program, “I learned a lot there, and one of the things I learned is that there are always ideas out there that you don’t know anything about. The more senior I got over time, the more I tried to seek those areas of diverse opinion to incorporate into my own thinking in making decisions.”²¹

When students are afforded the opportunity to lead groups, they should be aware that each individual member has a creative potential that can contribute to group success. The leader should ensure that the team functions are covered by its members and that the atmosphere within the group supports creativity. The larger issue is

that, as a senior leader in future assignments, the student will have a professional responsibility to develop innovative ethical teams and organizations. Success will belong to those who are agile and adaptive to the strategic landscape.

The processes that Taggar identified should help to monitor and manage the interactions of team members as well as those within organizations. Building an organization that is able to realize the creative potential of its individuals through their engagement with other members can result in an awesome product. This is the ultimate challenge faced by not only our USAWC students, but also the Army and Department of Defense.

Pulitzer Prize winner Thomas Friedman wrote, “the most important attribute you can have is creative imagination—the ability to be first on your block to figure out how all these enabling tools can be put together in new and exciting ways That has always been America’s strength.”²² As future strategic leaders for America, the challenge to develop and maintain this creative strength rests with you.

Endnotes

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