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# Fundamental Change is Free

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**Money** is not a requirement for military innovation. Much of the current debate on military transformation focuses on *things* and not enough of the debate emphasizes *ideas*. The most important aspects of transformation are free.

In the last two years, between 2001 and 2003, there has been a tremendous momentum for change. Some current assumptions, forces, and doctrines will soon be extinct. Future events will require course changes that are impossible to foresee. What organizational priorities are needed to meet these challenges and to guide us in this new century?

Historians do not always agree on how or why some armies have innovated well and some have not.<sup>1</sup> John Kotter, a leading thinker on corporate transformation, suggests that the first steps of any transformation should be analytical, representing a focus on *ideas to be created and communicated*, not equipment to be purchased.<sup>2</sup> I recommend the following seven steps to focus first on getting the direction of change right before spending the money to transform.

## 1. Identify the Threat

Innovative organizations address specific competition. A trend among militaries that successfully innovated prior to World War II was their accurate assessment of the threat that they would face. Armies that did a poor threat analysis did an inadequate job of innovation. Organizations that aimed for generic capabilities created flawed doctrine.<sup>3</sup> What is the threat today, tomorrow, or in 2040? How are requirements to meet the near-term threat balanced against requirements to meet the long-term threat? Where is the threat appreciation that guides our transformation?

Cost: \$0

## 2. Encourage Debate

Innovative organizations debate their direction of change. Top down innovation does not work. Writing, thinking and discussing new concepts must be widespread, and not constrained to the classroom. The more thinkers we have, the more innovation we get. Obstacles to the free exchange of ideas need to be eliminated. Before World War II, a French army edict that all publications and lectures conform with official doctrine effectively killed all creative thinking in that service.<sup>4</sup> Competitive service innovation is more fertile than single joint ideas. Do any current policies unintentionally stifle debate? Are any of our publications actually “state organs” contributing much to conformance but little to innovation?

Cost: \$0

## 3. Study History

Innovative organizations know and use history. History helps us maintain focus on the fundamental nature of war. Identification of historical discontinuities gives leaders an awareness of trends that have accompanied previous transformations and insights into how to proceed. History is the guide for preparing experiments, writing doctrine, and changing organizations.

An honest audit of failure is needed to recognize and learn from mistakes. Militaries who contemptuously reject the lessons of history, especially when linked with a lack of experimentation, innovate poorly. In 1932, the British chief of the Imperial General Staff suppressed a review of British army performance in World War I, rejecting history and effectively preventing discussion of lessons learned. In comparison, the interwar German army appointed fifty-seven

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separate committees to study the lessons of World War I.

In the 1930s, the French army, the British Royal Air Force and the U.S. Army Air Corps all attempted to innovate without reference to the past.<sup>5</sup> Andrew Krepinevich noted the ahistorical nature of the U.S. Army after Vietnam, “the Army made little effort to preserve the learning that had occurred during the war, rather it expunged the experience from the service’s consciousness.”<sup>6</sup> Do we value history as a lens on our future? Do our emerging concepts stand on historical bedrock?

Cost: \$0

#### 4. Educate Leaders

*“If you want replication, train.  
If you want innovation, educate.”*  
— General Peter Schoomaker

Innovative organizations educate their leaders. Leaders of the next century will need wide cultural, political, and strategic vision. Broadly-educated leaders will have to understand the context of new problems and how cultural aspects shape the minds of our adversaries. True education requires intellectual rigor, lifelong study, curiosity and reflection. Author Williamson Murray, however, believes that “It is virtually impossible for young officers to find time...to attain the...historical knowledge, language training, and cultural awareness that the twenty-first century is going to demand.”<sup>7</sup>

Military officers need to understand ideas, trends and developments in the world at large. Fellowship assignments in the civilian economy, universities, government agencies, and foreign exchanges should be widely available to emerging leaders.<sup>8</sup> These experiences enrich both the leaders as well as the organization. Intellectual as well as operational experience should be the prerequisites for high command. Do we encourage critical study and intellectual

curiosity? Outside of our narrowly parochial and generally non-rigorous service schools, are our leaders being truly educated to address the challenges of the future?

Cost: \$0

#### 5. Select Change Leaders

Innovative organizations are led by change leaders. An organization’s personnel policies define that organization’s values.

Organizational change seldom develops within the minds of those promoted for their mastery of the current organization. Leaders who innovate and who encourage innovation need to be identified and given key responsibilities. Champions of innovation should lead our schools and instructor duty should be a requirement for high office. Transformation is a long process. We need to put forward-thinking people in key positions and leave them there. Is our next generation of leaders being selected for their innovative ideas?

Cost: \$0

#### 6. Think Hard, Experiment Small, Test with Rigor

Innovative organizations think hard about the problems of change. Hard thinking produces draft doctrine that serves as a catalyst for discussion and experimentation. The U.S. Navy had a conceptual doctrine for carrier air power before they owned a single aircraft carrier. The working heart of innovation is small, specific problems addressed and solved by small teams. Small experiments can afford to fail. Experiments should be driven by concepts, not technology.<sup>9</sup> In an organization that shares a common vision, multiple experiments are conducted by unrelated units. This strengthens the discussion and the validity of the concepts.

Rigorous tests conducted by merciless testers produce unquestioned data. “Organizations which are not scrupulous with empirical data in peace have the same

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difficulty during war.”<sup>10</sup> Doubters need proven field successes to sway their beliefs. Rigorous tests prevent flawed assumptions from becoming flawed doctrine. Are we working through the small, tough problems before investing in any big system solutions?

Cost: \$0

## 7. Change the Culture

*“You either change the people  
OR you change the people.”*

— T. Wood Parker

Innovative organizations seek to transform their culture. Most change projects fail more through people than technology. The culture of a military is the most important enabler of innovation.<sup>11</sup> Historically, military cultures that encouraged critical study of even their most closely held beliefs innovated most intelligently.<sup>12</sup> Long transformation processes, which exceed individual careers, depend on the sustained focus possible only within a culture of innovation.

When new ideas and new technology are laid on top of existing people and organizations, problems occur. Decisionmaking authority and organizational behaviors need to be adjusted to support the innovation. Studies of information technology projects have shown that buying information-age equipment without changing industrial-age organizations generates *worse* performance. The true investment in technology is actually the investment in organizational change.<sup>13</sup> Do our organizations reward innovation? Are we willing to transform our basic systems of compensation, career paths, education, performance-evaluation, command selection, and promotion? Are we ready to examine our assumptions on roles and missions, force structure, acquisition, and mobilization? Are we seeking solutions that change our culture?

Cost: \$0

Total Cost: \$0

## Conclusion

*“We’re out of money. Now we have to think.”*

— Unknown British General,  
quoted by LtGen P.K. VanRiper

Some analysts believe that a lack of money inhibits innovation.<sup>14</sup> The historical record discounts this. Between the wars, U.S. forces had no money, yet they educated their officers and produced significant theoretical and doctrinal developments. Wartime U.S. Army leaders studied, taught, and led schools during the 1930s. The amphibious capability of the Marine Corps was designed and tested then. These activities eventually drove the acquisition and training for the force that went to war in 1941. Studies of other armies show some of the same patterns. Education, debate, and focused doctrinal development cost next to nothing. A large budget can buy technologically advanced but doctrinally irrelevant equipment and forces.

During the past two years, new realities have sliced open a large number of our cold-war assumptions and legacies. This acceleration of the transformation process has generated much internal friction. Large sums of money only skew the process. Spending money is a form of arrogance. Buying things is easy. Developing a conceptual, doctrinal, and organizational roadmap is hard. We need to reduce the focus on technology. Proponents of technological solutions ignore history at their peril. To transform for the challenges ahead, we need to focus on our people and our ideas, realign our organizational and cultural foundation, and set a course for the future. Then, and only then, should we purchase the tools and relevant forces suitable to face the evolving threats of this new century.

## Notes

1. Stephen P. Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, NY: Cornell University Press, 1991). See

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- also Williamson Murray and Allan R. Millet, editors, *Military Innovation in the Interwar Period* (New York: Cambridge University Press, 1996).
2. John P. Kotter, "Leading Change: Why Transformation Efforts Fail," *Harvard Business Review* (Vol 72, Issue 2, Mar/Apr 1995), p 59. Kotter's *Leading Change* (Boston: Harvard Business School Press, 1996) contains lessons, examples and insights expanding his 1995 article.
  3. Williamson Murray, "Comparative Approaches to Interwar Innovation," *Joint Forces Quarterly* (Summer 2000), pp 83-90. Both the interwar Royal Air Force and the U.S. Army Air Corps developed a number of flawed 'generic' doctrines that were disproven in actual combat. See Williamson Murray, "Thinking About Innovation," *Naval War College Review*, (Summer 2001), pp 119-129. Twelve reorganizations by the U.S. Army, driven to meet specific threats as opposed to technological developments, are discussed in "History of Transformation," *Military Review*, (May/Jun 2000), pp 17-29.
  4. Murray, "Comparative Approaches to Interwar Innovation."
  5. Murray, "Thinking About Innovation." Murray's, "Comparative Approaches to Interwar Innovation," discusses the RAF's indifference to the problems of air-to-air combat and bombing accuracy prior to World War II.
  6. Andrew F. Krepinevich Jr., *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986). Williamson Murray, "Clausewitz Out, Computer In: Military Culture and Technological Hubris" *The National Interest* (Summer 1997), pp 57-64, includes observations on U.S. technological focus completely overriding historical and cultural memory during the war in Vietnam.
  7. Murray, "Thinking About Innovation." In "Clausewitz Out, Computer In: Military Culture and Technological Hubris," Murray discusses the intellectual emphasis at the U.S. war colleges and staff colleges during the 1920s and 1930s, evidenced by General George Marshall's observation that one could not understand strategy unless one had read Thucydides. By 1965, a different breed of less well-rounded leaders had emerged. "American technology... was rendering... history, culture and the... understanding of war irrelevant."
  8. The organizational benefits of existing educational fellowships are not widely recognized. Current DoD efforts to justify fellowships may be short-sighted, since the value of any educational experience cannot be captured by a short-term cost-benefit analysis.
  9. "History of Transformation." In an insight on institutional bias, the Army's test organizations disliked the 1980s test by the 9th Division *specifically* because concepts were being tested and not discrete pieces of equipment.
  10. Murray and Millet, *Military Innovation in the Interwar Period*.
  11. A military's culture is the most important factor in studies of military failures. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: The Free Press, 1990). For a survey of multiple cultures addressing doctrinal developments, see Murray and Millet, *Military Innovation in the Interwar Period*.
  12. Murray, "Comparative Approaches to Interwar Innovation."
  13. Lorin M. Hitt, "Information Technology, Productivity and Organization" (University of Pennsylvania, 2001).
  14. Bryon E. Greenwald, *The Anatomy of Change: Whey Armies Succeed or Fail at Transformation* (Arlington, Virginia: Association of the United States Army, 2000). Murray and Millet, *Military Innovation in the Interwar Period*, discuss the effects of budgets on innovation as well.
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