During the 2020 Connections Wargaming Conference, author and wargaming consultant Graham Longley-Brown summarized his recently published book, *Successful Professional Wargames*, by distilling each of its 26 chapters; looking for a more finite response, the moderator pushed Longley-Brown to summarize the entire book to one point. His answer: “Wargames are about people.”¹

This seems like a simple answer, but it gets to the heart of what makes wargaming work. We know all models are wrong, but George E. P. Box’s warning extends particularly to models of human activity that leave out the human element.² We can construct a very good model of how a ball moves when acted on by forces, but it tells us very little about soccer, baseball, or cricket. By adding competitive human decisions to the simulation, wargaming emotionally engages the participants through competition. As a result, participants in wargames remember pivotal decisions, points of crisis, and moments of satori for the rest of their lives. Wargames are inherently experiential, and therefore wargames are inherently educational, because the players learn from experience.³

Anecdotally, the military lost its culture of wargaming in

---

² “Remember that all models are wrong; the practical question is how wrong do they have to be to not be useful.” George E. P. Box and Norman R. Draper, *Empirical Model-Building and Response Surfaces* (New York: John Wiley, 1987), 74.
³ For an easily read discussion of how games stimulate the same parts of our brains that learning from real experience does, see Raph Koster, *A Theory of Fun for Game Design* (Scottsdale, AZ: Paraglyph Press, 2005), 12–33. Koster argues that people enjoy games precisely because they learn from them.
the 1990s, as disruptive technologies drove manual wargaming out and replaced it with computer wargames. Computers offer real capabilities; but in doing the work for us, they all too often ensure that we do not understand how they arrived at results, and thus we cannot learn from them. Worse, many senior leaders expect wargames to act as an electronic oracle providing fast evaluations of plans. By removing human understanding of the course of events leading to the computer’s pass/fail evaluation, there is no understanding of the answer and thus the value of conducting the wargame is lost. Douglas Adams provided an eerily prescient parody of this in *The Hitchhiker’s Guide to the Galaxy*, where a supercomputer is tasked to provide the “Answer to the Ultimate Question of Life, the Universe, and Everything.” Thus, 7.5 million years later, the supercomputer delivers its simple but incomprehensible answer: 42. War games are about people, and they become pointless when we remove the people from them.

At the U.S. Army Command and General Staff College (CGSC), one of our goals is to “Create an Army of Wargamers”—an Army in which everyone understands wargaming and uses it routinely and well. In our pursuit of this, we support the use of wargames in education across many different courses; teach courses on the selection, utilization, and design of wargames; run the Wargame Design track in the CGSC Master in Military Education; and Col Eric M. Walters, USMC (Ret), “Wargaming in Professional Military Education: Challenges and Solutions,” *Journal of Advanced Military Studies* 12, no. 2 (2021): 81–114, https://doi.org/10.21140/mcuj.20211202003.

---


5 Adams’ novel presents a group of hyperintelligent beings who demand the answer from the supercomputer Deep Thought, which takes 7.5 million years to compute and verify the answer of 42. Deep Thought points out that the answer is meaningless because the beings who demanded it never knew what the question was. Adams would later claim in a 1998 interview with Iain Johnstone of BBC Radio that there was no deep analytical meaning behind the number 42; rather, he was looking for a simple ordinary figure. Douglas Adams, *Hitchhiker’s Guide to the Galaxy* (London: Pan Books, 1979).
Art and Science program; and offer frequent opportunities for voluntary hobby wargaming. We also operate to support the Army Modeling and Simulation Office’s wargaming education program. While we may never fully succeed in creating an army of wargamers, even partial success is worthwhile for its improvement of the force.

The effort consists of three core tasks. First, we need to use wargames in education, for the direct educational benefits they provide, and because doing so provides initial exposure to wargaming and education by the good example of its value, which in turn serves as a recruitment mechanism for the core cadre of wargamers. Second, we need to educate wargamers to develop the core cadres who will design and facilitate wargames across the force in both classrooms and units. Third, we need to ensure that end users of wargame products understand wargaming so they make appropriate use of their results. All of the authors within this edited volume address at least one of these lines of effort.

Timothy J. Smith provides a proven example of using wargames in education, carefully backing up their utility for both educational theory and measured outcomes. While the specific example covers training naval intelligence analysts, the point is much more broadly valid. Wargaming in the classroom comes at a real cost in time and effort, and we need studies such as this one to help convince our educational institutions that the time and effort pays off in improved outcomes; otherwise, we will not be able to expand the use of wargaming in curriculum and fail in the first task.

Dr. Kyleanne Hunter argues that educational wargaming needs to begin at the lowest possible level, focusing specifically on adapting wargaming into precommissioning courses. This should improve their overall education and simultaneously introduce and teach the use of wargaming at the beginning of

---

officers’ careers. This early recruitment of the wargamer cadre should be instrumental in spreading effective wargaming across professional military education.

Along similar lines, Group Captain Jo Brick and Lieutenant Colonel Scott Jenkinson argue that the Australian military needs to create formal positions within its educational institutions so that each has personnel whose job requires them to provide professional wargaming support and advocacy. These people can teach the courses and support others’ instruction to provide formal education and good examples, and help promote hobby wargaming to further assist in recruiting the wargaming cadre. Moreover, they note that these professionals need to organize and attend seminars and conferences on wargaming in order to expand their efforts and trade best practices with their colleagues.

Major Paul M. Kearney focuses on the critical need to increase the scale of the pipeline producing wargamers. He contends that the pipeline should leverage commercial wargames and wargame design practices, aiming to recreate many of the steps of a hobbyist’s accidental pathway into professional wargaming through a structured introduction. Properly applied, this should help expand the ranks of the wargaming cadre.

Major Ian T. Brown and Captain Benjamin M. Herbold similarly argue that the Marine Corps needs to create a structured program to train a cadre of wargamers who will carry wargaming back to their units. They see Education Command (EDCOM) as the key means of doing this: conducting wargaming education across all levels of EDCOM, with games tailored to each schools’ curriculum as explained in their selected examples. Dedicated institutional support, they conclude, is necessary to make wargaming’s current popularity more than a passing fad.

When we educate wargamers, what skills do they need? Unfortunately, different applications of wargaming require a mix of skills. Natalia Wojtowicz summarizes her extensive research for an answer to this question, and categorizes the vari-
ous applications and the skills that they require, assisting those who will train the wargaming cadre.

Equally important, we need to educate the sponsors of wargames. Dr. Jeff Appleget and Dr. Robert Burks go well beyond noting the necessity of this education, and provide specific advice to wargamers for ensuring the sponsors have both clearly explained their objectives for the wargame, and understand what they can and cannot get from it. Clear, tested guidelines such as these assist the wargaming cadre in learning to ensure a successful wargame.

Education of sponsors extends beyond the military. Dr. Brooke Taylor argues for the need to increase the inclusion of congressional members and staffs in wargames to improve the ability of the U.S. Congress to understand what the military needs. Expanding her point, sponsors need to participate in wargames in order to understand their outputs, or they may fall into the trap of getting ultimately useless ultimate answers.

While Timothy Smith used social science techniques to demonstrate the utility of wargaming in the classroom, Dr. Brandon Valeriano and Dr. Benjamin Jensen explore what wargames have to offer social science. They find that analytical wargames offer an opportunity for social scientists to explore problems with contingent outcomes that are often challenging for traditional social science methodologies, and explain a number of concrete examples where this has been done in the past few years.

Each of these authors addresses at least one of the three key tasks. However, their writing is meaningless without our action. Start a wargaming club or support the efforts of a local one or with USA Fight Club (wargaming experimentation group). Include wargaming in the current courses you teach. Offer and teach new courses on wargaming. Both inside and outside the military schoolhouse, work to educate your peers, subordinates, and superiors on better methods of wargaming. Push back against the flawed understanding that limits warga-
FOREWORD

 ming to a computer-automated black box performed only in course of action analysis. Get decision-makers engaged in their wargames and ensure they are run well. Together, we can expand wargaming and support victory.

James Sterrett, PhD
Directorate of Simulation Education
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas