

Military Writing in Simulations and Operations: Establishing Metrics and Standards

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Keywords:

Written Communication, Synchronizing Simulation and Operational Standards, Message Drafting, Deep Learning, Natural Language Processing, Metrics

ABSTRACT: *The mundane tasks of drafting and proofing military communications are often eschewed by junior officers, but are frequently the cause of significant loss in operations. Many simulations do not include message drafting and fewer still evaluate the quality of that vital function. This paper addresses the need for an analysis of this oversight and the potential benefits from remediating inadequate skills in many officers. A brief historical review of the necessity of the cogency and the clarity of the varying forms of writing is presented, including insights from the authors' own professional experience in military, academic and professional contexts. Some informal studies into the amount of time spent drafting written and oral items by varying levels of military leaders is offered to bolster the contention that the time spent on these tasks is higher than anticipated and is in no way reflected in the training time expended on it. The lack of current training efficacy is considered, along with the resultant lack of skill often observed. Both personal and literature support for these observations are presented. Current simulation practice is surveyed, with an emphasis on opportunities to engage and monitor writing skills. Then the authors present a number of emerging technologies that will putatively enable improvements in identifying skill deficits, providing remediation opportunities, quantifying improvements, and confirming implementation impacts in combat and non-combat environments. The authors provide an informal cost/benefit analysis of implementing such an emphasis, including risks that it may be more disruptive than beneficial. Ancillary benefits are suggested that may help compensate for additional costs in time and funding. Dual use issues are covered. The paper concludes with a call for a greater focus on actual engagement of military professionals in their day-to-day activities and the expected outcomes from utilizing the technologies that are available today for such an effort.*

Author Biographies

DAN M. DAVIS is a Research Associate Professor at Catholic Polytechnic University (CPU) and is also active as a consultant at the Institute for Creative Technologies, University of Southern California (USC). He is currently focusing on large-scale DoD simulations and virtual human implementations. Prior to retirement, he was the Director of the JESPP project at USC for more than a decade. As the Assistant Director of Advanced Computing Research at Caltech, he ran Synthetic Forces Express, bringing HPC to DoD simulations. He has also served as a Director at the Maui High Performance Computing Center and in computer research roles at the Jet Propulsion Laboratory and Martin Marietta. He was the Chairman of the Coalition of Academic Supercomputing Centers and has taught at the undergraduate and graduate levels. As early as 1971, Dan was writing programs in FORTRAN on one of Seymour Cray's CDC 6500's. While in the Marine Corps, he saw duty in Vietnam as a Cryptologist and retired in 2002 as a Commander, U.S.N. He received B.A. and J.D. degrees from the University of Colorado in Boulder.

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MARK C. DAVIS, PH.D. is the Chief Technical Officer at Wood Duck Research, Inc, and is semi retired after careers in the US Navy and as a computer design engineer for both IBM and Lenovo. Rising to the level of Distinguished Engineer at Lenovo, he was responsible for the design of laptop computer cross-disciplinary technology, including PC architecture, embedded systems, open source and virtualization. Previous work was with IBM in the areas of software development and architecture involving security, storage and virtualization. Dr. Davis has been granted well over fifty patents that were filed during his service at both companies. He is a graduate of the Duke University NROTC program and was commissioned as an Ensign, attended nuclear power school, and served as a Submarine Officer for twelve years, including one duty tour as a classroom instructor. He left the active duty as a Lieutenant Commander to pursue a PhD. Mark holds a BSEE degree from Duke University and a PhD in Computer Science from the University of North Carolina, Chapel Hill, where his advisor was Professor Fredrick P. Books.

JUDITH L. JACOBUS is retired from conducting speech therapy as a Speech and Language Specialist for more than two decades. Her experiences were in public schools settings in Orange County, California. She also previously taught for 12 years as a classroom teacher in multi-cultural communities there. Judith currently volunteers her professional skills for a local police department, so has extensive experience with dysfunctional adults and children in a variety of both every-day and traumatic situations. Her participation in amateur theatrics has more fully familiarized her with the characteristics of human behavior as they are projected via verbal, facial and body-language cues. This experience has also exposed her to the skill and art of the selection of appropriate persons for specific on-screen roles. Judith holds a lifetime Special Education Credential in Speech and Hearing Therapy, K-12 from the State of California. She earned a B. A. Degree in Speech Communications from the California State University Long Beach and an M. A. Degree in Teaching and Teacher Leadership from the Grand Canyon University in Glendale, Arizona.