Leadership founded in habits of inquiry and reflection (Abstract)

Robert C. Bolz Jr.

Follow this and additional works at: http://ecommons.udayton.edu/mth_kcs

Part of the Mathematics Commons

eCommons Citation
http://ecommons.udayton.edu/mth_kcs/15

This Article is brought to you for free and open access by the Math Events at eCommons. It has been accepted for inclusion in Kenneth C. Schraut Memorial Lectures by an authorized administrator of eCommons. For more information, please contact frice1@udayton.edu, mschlangen1@udayton.edu.
Abstract:
Leadership in the Science, Technology, Engineering, and Mathematics (STEM) disciplines has been the foundation of leadership in the world for over 600 years. In practical domains, aerospace is one of today's leading edge technology opportunities in which technical leadership determines the outcomes of cultural, political and diplomatic leadership. Medical research is another. In theoretical domains, cosmology for the macro, quantum mechanics for the micro, unified field theory for integration of these worlds, and evolution in the biological world have major consequences for policy in the world we live in. Dr. Bob Bolz reflects on his experiences and leadership in education and aerospace to discuss the exigencies of leadership in the modern world.

University of Dayton (UD) Strategic Plan Goal #1 calls for development of servant-leaders to transform the world we live in. Today our nation must refocus leadership in the STEM disciplines to restore our science and technology leadership in the world. UD STEM students are called upon by vocation to lead through high degrees of professional competence, and the development of skills that propel the UD graduate to set standards of leadership in a world craving competent leaders.

UD students, including STEM students, live in worlds defined by ideas, not things, and while technical competence is a necessary condition for providing leadership, it is not sufficient for providing effective leadership in our technical world. Today's leaders must understand the world in its political, diplomatic, cultural and ethnic complexity and diversity, as well as its technical competence. Today's leaders need to understand the history of why we are where we are, and the myths that hold our worlds together. They need to internalize the foundations that make ethical decisions possible. In short, the University of Dayton is asking its students to develop Habit of Inquiry and Reflection that allow leaders to discern the true issues facing mankind, and to find solutions to world problems that stand the scrutiny of ethical decision making.

The UD student does not stand alone in this endeavor. UD is to provide the leadership-nurturing environment and experiences that foster growth of servant-leaders. UD
students need to internalize the leadership imperative and develop Habits of Inquiry and Reflection within the UD student experience. Success depends upon the collaborative nurturing of the UD community. Educational immersion in history, philosophy, the humanities and the arts is critical to the success of the UD student leader.

For Arts, Humanities, Business, and Education students, understanding the STEM disciplines is an equally necessary condition for providing effective leadership in our technical world. The foundations of these imperatives will be explored by Dr. Bob Bolz. He has a unique educational background and has provided leadership in aerospace and education. He is a leader in the arts in his community, and supports the UD School of Arts and Sciences as a member of its Advisory Council.

Bob Bolz is a dual-degreed 1966 graduate of the University of Dayton, receiving his B.S. in Mathematics with a minor in Physics, and a B.S. in Secondary Education. Doc Schraut was an integral part of Bob’s UD educational experience, as Doc was Chairman of the Department of Mathematics during that period. Upon leaving UD, Bob taught high school Mathematics and Physics in the New York City area and Puerto Rico for 10 of the next 12 years. Bob also served as Chairman of the Mathematics and Science Departments during that period. Bob interrupted his teaching to obtain his M.S. degree in Physics from Manhattan College in 1972, and his M.A. (1973) and Ph.D. (1976) degrees in Philosophy from Fordham University. His concentration was in the Philosophy of Science / Foundations of Physics, having done his dissertation on Objectivity, Observability, and Space-Time.

In 1978 Bob entered the aerospace industry, joining Fairchild Republic Company in New York as an Operations Analyst, growing to management of systems development of a Mission Planning System for the United States Air Force, and Program Management on the SAAB-Fairchild 340 aircraft program. In 1986 Bob moved to General Dynamics (now Lockheed Martin Aeronautics Company) in Fort Worth, Texas, and has held leadership positions on all of Lockheed Martin’s major aircraft programs ever since. He first managed F-16 International Co-production Programs; then he led all F-16 International Programs across 23 countries. Subsequently he led the development and competition teams that won the largest international development contract for an upgraded version of the F-16, the Block 60 F-16.

Bob led the Lockheed Martin’s Proposal Teams for the Joint Strike Fighter (JSF) in 1995-96 (against Boeing and MacDonald Douglas) and 1997-2001 (against Boeing). The JSF is common-designed aircraft to meet the Conventional Takeoff and Landing (CTOL) requirements of the USAF, the Carrier Variant (CV) requirements of the USN, and the Short Takeoff and Vertical Landing (STOVL) requirements of the USMC. On October 26, 2001, the Department of Defense awarded Lockheed Martin the contract to develop, produce, and sustain the F-35 Lightning 2 Joint Strike Fighter. This is the largest procurement in US Government history, and will top $300B for aircraft for today’s nine nations, with new nations continuing to join the JSF Program. Bob also led the proposal team that secured the first aircraft production and sustainment contract for JSF in 2007.

From 2002 through 2004 Bob was Deputy Program Manager and Vice President for Sustainment for F-22 Program. During that period the F-22 completed its flight test program, started deliveries of production aircraft to the USAF, and initiated Performance Based Logistics.

Today, Bob is Lockheed Martin’s Vice President, JSF Global Industrial Integration, responsible to ensure full integration of the JSF production programs at international industries in the nine JSF nations, and any new nations that join JSF. His team negotiated industrial participation agreements with all of the international JSF Governments and their industries in advance of those Governments signing the Production, Sustainment, and Follow-on Development (PSFD) Memorandum of Understanding (MOU) with the United States Government in early 2006, committing to remain in all subsequent phases of the JSF Program.
Bob is currently the President of the Board of Trustees for the Fort Worth Opera, and has served as Chairman of the Board of Directors of Arts Council of Fort Worth and Tarrant County. Bob and his wife, Kay, have one daughter, Cassandra, in Mergers and Acquisitions in New York City. Bob and Kay enjoy the arts, attending performances of the Fort Worth Opera, the Fort Worth Symphony, the Fort Worth Chamber Orchestra, the Dallas-Fort Worth Ballet, and three professional theaters in Fort Worth. They also participate in the three world-class museums in Fort Worth, the Amon Carter, the Kimbell, and the Modern Art Museum. Bob has served on the University of Dayton School of Arts and Sciences Advisory Board for four years.

Math Events 2008
Main Math Events Page