Abstract

Often overlooked in the aftermath of significant technology advancements are the difficulties associated with integrating these technologies into our economy and culture in a manner that is technologically and environmentally feasible and economically and culturally desirable. Technologists, scientists, and developmental engineers seldom identify problems the new technology will not solve nor can they see any unintended consequences associated with the new technology which may have a negative cultural or environmental impact. Technological discoveries can be divided into two categories – small or limited scope items and large and of national interest. Small items might be a hand-operated can opener or a specialized hydraulic jack while items of national interest would be development of atomic energy or the development of the nation’s space program. It is intuitively obvious that our national commitment to commerce in small tools and household devices is completely different from our commitment to the atomic energy program and our space program, which requires a large commitment of financial and human resources. To insure the development of the desired product within the budgeted resources and time frame requires a large skilled management team and a state-of-the-art knowledge management system. Management will have to develop techniques, logics and risk management strategies for daily use in the management continuum to preclude program interruptions and excessive spending rates from time to time. The management plan must also consider that the entire management team may have to change abruptly over time. Thus, there must be a mechanism to ensure continuity and consistency of C2 projects over different life cycles of management. This paper presents a novel combination of analytical and management approaches to improving communication, cooperation, and coordination across decision-making processes in Command and Control projects. Case histories and managerial inferences will be presented as cognitive analysis for developing effective command and control strategies for long-term process improvement new programs.