

# **Knowledge Management from the Perspective of Systems Theory and Cybernetics**

**Stuart A. Umpleby**

Research Program in Social and Organizational Learning  
The George Washington University  
Washington, DC 20052

umpleby@gwu.edu

## **Abstract**

In the past fifty years the field of systems theory and cybernetics has developed new understandings of the nature of knowledge and several models and methods for improving the management of organizations. In terms of conceptions of knowledge the paper reviews the distinction between producer – product relationships on the one hand and cause and effect relationships on the other hand. Stafford Beer's Viable System Model is a model of organizational structure and functioning that helps in identifying what knowledge is necessary for viability. Process improvement methods are a means of organizational learning that lead to increased knowledge both in individuals and in the organizational as a whole. Interactive Planning is a method of organizational redesign that emphasizes the importance of knowing how present operations can lead to problems in the future.