Preface

Capitol College established the Innovation and Leadership Institute (ILI) to respond to regional and national needs for developing students with the technical leadership skills necessary for a successful career in private industry, government and the nonprofit sector. This book is published under the auspice of the Capitol College ILI and serves as a resource in fulfilling one of the ILI's goals of contributing to the ongoing academic discussion of best practices in the emerging field of innovative leadership.

The first chapter, by Michael Gibbs and Anthony Dosen, provides a review of the literature on leadership from the "Great Man" theory, to transformational, and begins to introduce the concept of innovative leadership based on prior leadership theories.

Building on the review of the literature, Michael Wood, who is dedicated to and involved in the effective leadership of the innovative process, outlines the ideas of innovation and leading in an innovative way, while highlighting various leadership attributes, styles and actions. Wood provides an overview of the changing paradigms in the cultural context future leaders should understand in an ever-changing environment and how this can be a balancing act while striving for a stable approach and being able to adjust to changes in various circumstances and the environment in which leaders may find themselves.

In examining the need for technical leadership in the 21st Century, specifically within the area of cyber security, Vic Maconachy builds

on the National Academy of Sciences report, *Rising Above the Gathering Storm*, that warns our national competitive advantage in science and technology is at risk. Expanding on the report, he examines the question of what type of leadership it will take to steer our nation away from this crisis. Maconachy highlights the need for proactive leadership in science and technology and how we as a nation need to address this issue.

One possible modern day technique that might be considered to address the issues Maconachy raises for both managing and leading is offered by Audrey Andrews. She suggests that through the Situational Leadership Model we can utilize new and innovative tools and techniques for leaders to enhance their ability to both manage and lead. In facing 21st Century issues within our country in science and technology, Andrews discusses leadership behaviors and the importance of a leader providing innovative leadership in a new era of technology.

With our society now actively engaging in a new era of technology that continues to advance on a monthly basis, leaders need to be provided learning opportunities so they can utilize technology. Helen Barker builds on Andrews' discussion suggesting that synchronous and asynchronous learning environments, which closely match the traditional classroom method to deliver instruction, are a viable option to develop and educate our future leaders. Through specifically examining leaders in higher educational institutions, Barker suggests that online learning could assist in the educational process and that organizational leaders must be the drivers of new and innovative approaches to teaching and learning.

To conclude this book, former astronaut Paul Lockhart shares some of his leadership situations and describes how his decisions took him from college to the International Space Station. In his 2009 commencement address at Capitol College, Lockhart told the new graduates that the most important post graduate education he could have undertaken was the timeless path of leadership. In addition to his academic degrees and his military and space training, he was able to take advantage of leadership situations that took him down many

interesting roads and opened doors to opportunities he could never have imagined. In examining the leadership situations he experienced in his career, Lockhart asks the question, "where will your opportunities in leadership appear?"

From highlighting the fundamentals of leadership and beginning a discussion on innovative leadership, to considering the clear national need for future innovative leaders in science and technology and how that development and educational process might occur online, this book is intended to provide additional information and thoughts for consideration in the ongoing discussion regarding the national need for innovative leaders.

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Editor