Preface

WHAT IS MEANT BY THE TERM DISTRIBUTED TEAM?

The term “virtual team” has been used over the past several years to describe a team where the members do not meet in the same place at the same time, but instead are working online. A more accurate name for today’s emerging team model is “distributed team” – used to describe a variety of team configurations, made up of individuals in multiple locations working toward a common team goal or mission. Working in distributed teams is becoming increasingly common as companies extend and diversify their operations across geographic boundaries.

WHY IS THIS TOPIC IMPORTANT?

Learning to form and sustain high-performing distributed teams with members in multiple locations, time zones, and representing diverse cultural perspectives requires new skills and new approaches to project team collaboration. In most cases, the only accommodation made for these teams is technology that is put in place to support the distributed tasks. However, engaging individuals who are distributed requires an intentional approach that can only be accomplished through a clear understanding of what is different in this environment, and what is known about how to leverage these differences. While this topic is still relatively new, there is an emerging body of research and best practices available to support organizations as they strive to turn the distributed challenge into a competitive advantage.

PURPOSE AND POTENTIAL IMPACT OF THIS BOOK

This book will outline the drivers causing this transformation in project work, introduce a variety of models that represent distributed team configurations, summarize some of the challenges inherent in leading and contributing to distributed teams through a set of case studies, and suggest practices that are emerging to optimize distributed team performance. The goal of this book is to provide a digestible synopsis of the phenomena of distributed / virtual teams in a way that organizational leaders can leverage the unique characteristics of these teams to their advantage. The potential impact is to shift thinking from a reactive stance (i.e. coping with the challenges of virtual teams) to a proactive stance of exploiting the potential of distributed teams for their unique ability to be deployed in alignment with organizational strategy. An additional goal of this book is to raise awareness of the new skills needed
for leadership, collaboration, and cooperation in these teams and to aid organizations and universities in developing these skills in the workforce. This book has the potential to introduce new models for team design in the distributed environment. For the technology industry, this book also has the potential to provide use cases in effective distributed teams and emerging practices that can aid in the design of new collaborative tools.

**ORGANIZATION OF THE BOOK**

The research to support this book was conducted in a variety of industries, including product development, marketing and sales, technology engineering and manufacturing, and higher education. The book includes chapters written from a variety of perspectives and by authors from a range of backgrounds in academia and industry. The book is organized into a four sections in order to situate the reader within the context of the topic and the perspective of the authors.

**Section 1: The Setting**

This first section aims to set the context for the book and for the phenomena of distributed teams. It includes chapters that outline the forces that have influenced the distribution of the workforce, the history of how collaborative work has evolved through research and practice, and includes an overview of the concept of culture, which will be referred to throughout subsequent chapters.

**Chapter 1: Globalization: History Repeats**

In this first chapter, Russ Martinelli, Tim Rahschulte, and Jim Waddell recount the history of globalization and outline the forces and drivers that have influenced global expansion and contraction over the past several centuries. They then focus on recent events and trends that have accelerated global expansion and describe how some organizations have become globalization leaders by developing and effectively executing global strategy. Three globalization strategies are suggested, and leaders cautioned to match strategy with redesigned structures, processes, tools, practices, and skills to ensure that their organizations are well prepared to compete in the globally distributed environment.

**Chapter 2: The Evolution of Collaborative Work**

This chapter operationalizes the term “collaboration” by distinguishing it from cooperation and coordination. Tim Rahschulte details the genesis of collaborative work in human history, detailing how the notion of work has evolved as man has grown in his understanding of the value of working with others to satisfy mutual needs. Starting with a biblical reference, then reviewing pack mentality, and thoroughly detailing the innovativeness of human interaction, this chapter explores the evolution of collaborative work in an effort to set the stage for later chapters that rely on an understanding of this history.
Chapter 3: Culture: Leadership Principles for Building Healthy and Productive Distributed Teams

The word “culture” is used in many contexts and is interpreted in a variety of ways. In this chapter, Mark Rennaker and Don Novak provide a synopsis of the research supporting our understanding of culture and then focus on culture as an organizational foundation that represents a pattern of beliefs, values, assumptions, and behaviors that both develops and persists over time within a social unit. The authors then focus on the multiple locations and individual cultures represented by distributed team members and suggest that creation and enhancement of culture by distributed team leaders is more complex than in face-to-face teams. The chapter offers guidance to leaders who strive to develop and sustain a culture that will support distributed team collaboration.

Section 2: Theory and Research

While all of the chapters in this book combine theory and practice, the chapters in this section will focus on summarizing theories that support our understanding of issues relevant to distributed teams and/or introduce new research and theoretical perspectives relevant to the topic.

Chapter 4: Sustaining Organizational Culture in the Globally Distributed Environment

One of the challenges that faces organizations as they distribute globally is that of maintaining a core mission, vision, and set of values to provide unity of purpose for employees in increasingly dispersed teams. In this chapter, Kathy L. Milhauser details the issues involved in sustaining an underlying culture in a way that project teams can connect the work they are doing with the core purpose and heritage of their organization. A case study of a global product development team is used to illustrate how one company has faced these challenges and is growing their organization while remaining focused on its core values and heritage.

Chapter 5: The Effect of Cultural Dimensions on the Development of Intra-Team Trust in Global Virtual Teams

Kurt D. Kirstein draws from Hall and Hofstede’s research into cultural dimensions and outlines the effect of four specific cultural dimensions on the development of intra-team trust. Recommendations based on research as well as Kirstein’s global virtual team experience are provided to leaders who are charged with leading distributed multi-cultural teams.

Chapter 6: Re-Examining Trust Development and Knowledge Sharing in Virtual Teams

Trust is consistently noted as a fundamental necessity in effective teamwork. Trust is even more critical to develop and sustain when teams are distributed. This can become complicated when dealing with individuals who interact primarily via phone and electronic means, with minimal face-to-face contact. As distributed teams are becoming increasingly common in global companies, the challenge of how to ensure knowledge is being shared is gaining more attention among practitioners and scholars. However, there
have been few attempts to integrate trust and knowledge sharing behaviors in distributed teams. In this chapter, Su Jin Son and Eun Jee Kim thoroughly explore the existing literature on different approaches to trust and the knowledge sharing process, and then introduce an integrative three-stage process model of trust and knowledge sharing for distributed / virtual teams.

Chapter 7: Trust in Distributed Teams

Continuing on the theme of team trust, Stephen Rylander blends theory with his experience as a software engineer and consultant to introduce a new perspective on the development of trust in teams. Rylander suggests that trust is developed differently in a professional context than interpersonal trust, and then goes on to suggest some of the obstacles to trust development in the distributed environment. Rylander suggests a system dynamics view of trust development based on Brooks Law and includes recommendations for building and sustaining trust for leaders of distributed teams.

Chapter 8: Ethical Leadership as a Cross-Cultural Leadership Style

Another critical component to the success of distributed teams is effective leadership. This chapter introduces research on leadership, with an emphasis on ethical leadership and its relevance to cross-cultural distributed teams. Laurie Yates reviews literature and prior research relevant to the topics of a variety of leadership approaches and includes a brief accounting of a qualitative research study that examined whether ethical leadership attributes are viable across cultures.

Chapter 9: Complex Systems Theory and Model of Distributed Team Development

Peter L. Bond tackles a variety of organizational and social development theories in this chapter, and suggests how they apply to distributed team collaboration. Bond introduces the reader to theories such as Dunbar’s Social Brain Hypothesis, Humberto Maturana & Francisco Varela’s work on spracritical systems, the KALiF system of community practice and team development, and others. He then goes on to illuminate the connections between theories in these domains and the challenges of distributed team collaboration. Bond suggests a proposed model for distributed team development and function based on the foundation of the theories and models outlined in the chapter.

Section 3: Emerging Tools and Practices

The chapters in this next section deal primarily with the practical application of tools and practices to support distributed teams. This section will include perspectives from experts in the field of technology for learning and collaboration, as well as case studies from practitioners who have been experimenting with new approaches for collaborative work in the distributed environment.

Chapter 10: Technology Stewardship for Distributed Project Teams

This chapter suggests that distributed project teams can benefit from the practices and technologies that have been leveraged in recent years by communities of practice (COPs). John D. Smith compares and contrasts the COP and the distributed project team, suggesting that the learning that has emerged through
COP practice and research might be leveraged to improve distributed team effectiveness. Smith suggests that many of the challenges are the same while COPs and distributed project teams strive to work together effectively in the virtual environment. Building on the notion of a “digital habitat” (Wenger, White, & Smith, 2009) Smith describes the landscape of technologies and practices that, in combination, will enable a project team to accomplish its tasks.

Chapter 11: A Distributed Requirements Collaboration Process

While models for distributed and virtual teams are still new, one field where relatively more experience exists with these new models is the field of software engineering. Distributed teams are becoming more the norm than the exception in software engineering and development teams. In this chapter, Brandon Rydell, Sean D. Eby, and Carl Seaton introduce a new process and tool that they developed to manage one of the most complex and problematic processes that software engineers face—collaboration on the definition and prioritization of software requirements. The authors briefly outline relevant literature in the field and then proceed to describe the process and tool that they developed, including reflections on their learning and validation process.

Chapter 12: Dimensions of Team Distribution within a Software Team

In this chapter, Eric M. Wilson expands the definition of distributed team to encompass a broad range of dimensions that can result in what he refers to as team distributedness. Wilson challenges the reader to think past the typical dimensions such as geography, timezone, and cultural differences, and to consider other dimensions which significantly impact the normal functioning of a team. The chapter focuses on the dimension of network connectedness, referring to a team in which the major difference between members is the degree to which they are connected or disconnected from each other and centralized resources. A case study approach illustrates how one software development team evolved their use of version control software to support the challenges of distributed software development. Wilson encourages leaders to identify dimensions of distributedness and look for ways to leverage those dimensions in the pursuit of distributed team performance.

Chapter 13: Inter-Organization Partnership and Collaborative Work Tools

In this chapter, Deanne Larson recounts a case study of a U.S. and an Indian organization engaged in an interorganizational partnership in the technology sector. Larson describes the technology infrastructure that was put into place to support the partnership and outlines how telecommunications, networks, wikis, and Web-based training were used to bridge differences and allow these organizations to function as one. The chapter includes a summary of the lessons learned by the organizations in the partnership through Larson’s reflections on the integrated teamwork model and enabling technologies deployment.

Section 4: Preparing the Workforce of Tomorrow

The book concludes with a set of “forward-leaning” chapters that represent emerging research into what will be needed to support the future workforce. The chapters cover topics relevant to organizational leaders, educators, human resource professionals, and anyone interested in trends that will affect workforce productivity in the distributed environment.
Chapter 14: Trends in Virtual Leadership: An Interview with Elliott Masie

In this chapter, a leading technology and learning futurist, Elliott Masie, is interviewed by Kathy L. Milhauser regarding his views on the emerging role of the virtual leader. Elliott shares insights from his collaboration with global leaders in over 240 companies regarding what is needed for success in the distributed team environment, what challenges are being faced, what technologies are being deployed, and what lies ahead for organizations who hope to leverage distributed models of teamwork. Elliott shares his surprise; as he began to research this topic and found that what constitutes effective leadership in the virtual environment is not so different than in traditional environments, he asserts that success in this venue is more about adapting to a new delivery model than developing a new set of skills.

Chapter 15: Teaching Globally Distributed Software Development (DSD): A Distributed Team Model

In this chapter, Stuart Faulk and Michal Young share work that is being done between the University of Oregon and Peking University to jointly prepare students to create software in highly distributed software development teams. The challenge of preparing students for real distributed teamwork is addressed in this chapter through a collaborative effort between the two universities to develop and deliver a distributed software development course that places students in situations that simulate the teamwork environment they will experience in industry. Faulk and Young describe the current state of this project and invite further research and participation from colleagues in education and industry.

Chapter 16: New Approaches Needed to Support Distributed Teams

Examining the trends in disruptive and innovative technologies that are emerging to support distributed work, this chapter deals with the developmental needs of people and organizations for the future. William and Brenda Young draw from research and consulting experience to suggest a new value proposition for distributed teams, encouraging organizations to use these teams as their external eyes and ears in the marketplace. The authors go on to offer suggestions for developing and supporting the distributed workforce, noting the interpersonal challenges of doing so at both the individual and team level.

Chapter 17: Creating the Environment for High Performing Distributed Teams: Human Resource Strategies and Practices

This final chapter turns the focus to the Human Resource profession as a crucial partner in strategically deploying distributed teams to accomplish organizational mission. Tim Rahschulte and Jim Steele share research that was conducted in a variety of global companies, examining questions of how best to accommodate the evolving organizational landscape. Their findings indicate that, while organizations are relying on their Human Resource (HR) division to support business strategy, growth, and development, in most cases, HR divisions are struggling to support business needs in perhaps the greatest time of flux in modern day business. This chapter offers best and next practices from HR leaders accommodating the needs of their businesses, as well as a set of propositions for future research.