

# Leadership at a Distance

*Research in  
Technologically Supported Work*

EDITED BY

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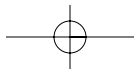
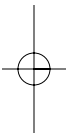
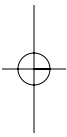
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*DEDICATION*

*To Nate, Mara and Sami*



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## Foreword

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Imagine what leadership in a group of our hunting and gathering ancestors must have looked like tens of thousands of years ago. These early humans supported themselves by hunting for wild animals and gathering fruits, berries, and other foods. Anthropologists tell us that they often lived in bands of 15–25 people and that decision-making in these face-to-face groups was relatively egalitarian. Because of age, experience, or other personal characteristics, some members of the band had more influence on group decisions than others. But most decisions were made by group consensus, and no one had absolute power over others.

We can speculate that effective leaders in these groups must have had many of the characteristics we would still recognize in leaders of small groups of peers today: credibility based on achievements important to the group, persuasiveness based on personal charisma, and enough social skill to sense what the group wants and not try to lead in a direction the group won't follow.

Now imagine what leadership looked like in the government and armies of ancient Rome. Small groups of peers still existed, and leadership in these groups was probably very similar to leadership in similar small groups before and since.

But now new forms of leadership had been added. New technologies—especially writing—now enabled a small group of people in Rome to “lead” an empire of tens of millions of others spread over parts of three continents. And the Roman army was—for its time—a masterpiece of organizational design. With carefully defined ways of grouping, linking, and controlling tens of thousands of people, it anticipated many of the organizational principles that still underlie the largest corporations of today.

Effective leadership in these new kinds of organizations required many new leadership skills. Not only did (at least some of) the new leaders need to master new communication technologies (like writing). But very different kinds of skills were needed to do things like issue orders that would be carried out by thousands of people, hundreds of miles away, after being filtered through several levels of intermediate leaders.

Today, we are in the early stages of another profound change in leadership. New communication technologies (like email, the Web, instant messaging, videoconferencing, inexpensive voice communication, and the Internet in general) are now making it possible to communicate with vastly more people, almost instantly, almost anywhere in the world, and often at almost no cost. Just as the Roman Empire did not emerge immediately after writing was invented, it will take a while for all the new organizational forms enabled by these new technologies to be invented.

But I think—and I suspect many of the contributors to this book would agree—that the kinds of leadership that will be needed in these new organizations may be as different from leadership in 20th century organizations, as leadership in the Roman Empire was from leadership in a hunter-gatherer band. Not that the old kinds of leadership will go away. They won't. But they will be joined by some very new kinds of leadership, too.

For instance, leading a small group of software developers spread around the world, communicating only by email and telephone, requires some very different skills from leading the same small group if they all worked in a single room. And, as a number of chapters in this volume suggest, leadership is becoming more distributed in another sense, too: Not only is it more distributed *geographically*; it is also becoming more distributed *organizationally*.

That is, as information is more widely distributed throughout an organization, so, too, is leadership. Many of the leadership skills that used to be concentrated at the top of an organization (such as sensemaking and visioning) are now becoming critical for more and more leaders throughout an organization.

Of course, no one knows all the answers about how leadership will change as we enter this new world of distributed leadership. In fact, many of the answers haven't even been invented yet. But this volume contains provocative work by some of the leading researchers in this area today. If anyone can help us see how things are changing, it should be them!

**Thomas W. Malone** is the Patrick J. McGovern Professor of Management at the MIT Sloan School of Management. He is also the founder and director of the MIT Center for Collective Intelligence and author of the book *The Future of Work* (Harvard Business School Press, 2004) which elaborates—and provides references for—some of the points made in this Foreword.

## Preface

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When learning that Colin Powell conducted his work using wireless and computer technologies, Thomas Friedman wrote, “Your boss can do his job and your job. He can be secretary of state and his own secretary. He can give you instructions day or night. So you are never out. You are always in. Therefore, you are always on. Bosses, if they are inclined, can collaborate more directly with more of their staff than ever before—no matter who they are or where they are in the hierarchy” (Friedman, 2005, p. 213).

Like Friedman, the researchers in this book have noticed that the world of leadership in distributed work environments has changed in dramatic ways. There are hundreds of books and studies and much media attention on leadership, yet leaders and organizations are still floundering about what to do in this new, “flatter” world of work. In a recent survey of 440 human resource professionals, more than 70% of the respondents rated their virtual team member-training as “not at all effective” or only “slightly effective.” Similarly, more than 75% of the respondents rated their training as a virtual team leader as “not at all effective” or only “slightly effective.” In fact, only 7% of respondents rated their current virtual team member and leader training programs as “very effective” or “extremely effective” (Rosen, Furst, & Blackburn, 2006).

This book examines the complex phenomenon of leadership in distributed work settings, or leadership at a distance. The study of leadership at a distance is complex because of the ubiquitous roles that leaders play, the scale of the work in which leaders find themselves, and the range of technologies available to them. Two goals of this book are to address this complexity and to set new directions in studying leadership at a distance. The chapters in this book show that leaders head distant teams; they are engineers, physicians, and webmasters who work in a wide range of work settings, from temporary arrangements with individuals, small sets of individuals, or large online communities to large-scale collaboration efforts to provide aid to Hurricane Katrina victims, and they conduct science as well. This book also examines the range of technologies leaders employ to do their work, including email, videoconferencing, group support systems, websites, blogs, web forums, and software development.

The scholars who contributed to this book are located with disciplinary and interdisciplinary programs in psychology, organizational behavior, information systems, computer science, human–computer interaction, cognitive science, management, and other hybrid fields. Because of their diverse backgrounds and separate venues for publication and research networks, there have been few opportunities for these researchers to meet and work together to understand the field of distant leadership from a broader perspective. A group of the authors met for this purpose at a workshop in Scottsdale, Arizona, to share papers and ideas. This workshop was sponsored by the U.S. Army Research Institute to better help Army officers and researchers understand the new world of leading at a distance.

This book, based on some of the papers presented at the workshop as well as recent work in large-scale collaboration and international leadership, offers a unique perspective of empirical research representing a variety of fields and methods. It is intended for researchers and others who seek to understand leadership in distributed teams, organizations, and large-scale collaboration. Through this book, we hope to stimulate more research on this topic and on studies related to the design of technologies for leaders.

The chapters are organized to offer very different perspectives on leading at a distance. The book begins with an overview of the challenges leaders face in the 21st century. We then present three chapters describing field studies and new ways of thinking about leadership in distributed work settings. The next three chapters describe experiments on the group dynamics and social processes involved in leading teams at a distance. Finally, four chapters present research on leadership in large-scale distributed collaborations. They test previous theories of leadership and question whether leaders need to know in advance their roles and responsibilities, or have the right training, or have the right skills and personal characteristics. We end with a concluding chapter that highlights the lessons learned about leadership at a distance and future research directions.

Because of space limitations, some areas of work have been not been included here. We do not include studies of the effects of leadership training and development in distributed work. We also do not include studies of leadership in knowledge networks or how leadership affects the distribution of knowledge in organizations. We believe this work has been covered well elsewhere. Many of the chapters discuss technologies to support distant leadership, but we do not focus on technology itself. Rather, this book is designed to foster understanding of the role technology plays in leadership, and how leadership is shaped by the use of technology. Although this book was sponsored by the U.S. Army Research Institute, it does not focus on any individual leaders from the Army. Instead, we offer new perspectives on leadership at a distance to inform the Army and other organizations of the challenges and lessons of leadership in the 21st century.

**PREFACE****xi****ACKNOWLEDGMENTS**

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