Preface

E-collaboration technologies have been around for a long time. If we look only at computer-based e-collaboration technologies, arguably the first instances date back to the emergence of the ARPANET (the precursor of the Internet) in the late 1960s. We can safely say that e-collaboration technologies have been developed and used for more than 35 years. Many new technological developments have taken place during this period. Those developments have both shaped e-collaboration technologies and pushed them in particular directions. For example, the emergence of local area networks in the 1980s has led to the development of e-collaboration technologies aimed at supporting the work of small groups. The ascendance of the Internet in the 1990s as a global infrastructure for business transactions and personal interactions, on the other hand, has led to the development of e-collaboration technologies to support the creation of large virtual communities.

One cannot help but be somewhat surprised at the amount of interest, in both academic and industry circles, that e-collaboration has commanded during those 35 years. That interest does not seem to be showing any signs of dissipating; something that has happened with many technological advances that at some point in time seemed to be the center of all of the world's attention. Perhaps the reason is that e-collaboration technologies are at the source of something that increasingly underlies most business, political, and even societal developments–intense human collaboration. Business organizations in the last 10 years, in particular, seem to have to increasingly rely on distributed collaborative processes to maintain their competitiveness. E-collaboration technologies are a sine qua non condition for the successful implementation of those types of processes.

This book is a collection of chapters on emerging e-collaboration concepts and applications. The volume is organized in three main sections – Section I: Conceptual and Methodological Issues; Section II: Applied Research and Challenges; and Section III: Research Syntheses and Debate. The chapters are by and large based on articles published recently in the *International Journal of e-Collaboration*, for which

I have had the pleasure of serving as editor-in-chief since its inception. Some of the chapters are reprinted here with permission. Other chapters are revised versions of previously published articles, with the revisions made by the authors specifically for inclusion in this volume.

Section I of the book includes chapters I to V, and is dedicated to the discussion of conceptual and methodological issues in connection with e-collaboration. Chapter I, by Kock, presents six key conceptual elements that arguably make up most e-collaboration interactions; going from technology-related elements to the social environment surrounding the e-collaborators. Chapter II, by Markus, develops a "tool view" of e-collaboration, and contrasts it with the previously developed and widely cited "ensemble view". Markus does that through a chapter that is essentially a revised version of an award winning article, selected as the best article published in the *International Journal of e-Collaboration* in 2005. Chapter III, by Munkvold and Zigurs, focuses on the discussion of organizational and behavioral challenges associated with the integration of different e-collaboration technologies. Chapter IV, by Nosek, cogently argues that individual and group "sensemaking" is a better starting point for the development of effective e-collaboration environments and features. Chapter V, by Kock, concludes Section I of the book by discussing the action research approach and pros and cons of its use in e-collaboration research.

Section II of the book is made up of chapters VI to X, and is dedicated to the discussion of applied e-collaboration research findings and related challenges. Chapter VI, by Fjermestad, discusses a longitudinal experiment that investigated the efficiency, effectiveness, and group member perceptions of two approaches to strategic decision making in distributed e-collaboration environments. Chapter VII, by Evaristo and colleagues, discusses a field experiment involving two graduate information technology student classes that collaborated electronically; one located in Porto Alegre, Brazil, and the other in Chicago. Chapter VIII, by Miranda and Carter, reports on a field study conducted during the migration of a business unit to a new communications system, which suggested the existence of a counterintuitive positive effect of "telework" on the use of face-to-face communication. Chapter IX, by Schultze and Bhappu, develops a contingency theory of customer co-production designs, and then uses cases of Internet-based services to highlight the benefits and challenges of relying on Internet technology to implement customer co-production. Chapter X, by Dennis and colleagues, concludes Section II of the book by discussing a study that examined two key factors through which group size may affect brainstorming performance, namely synergy and social loafing.

Part III of the book is made up of chapters XI to XV, and focuses on the discussion of syntheses of prior research and issues that are likely to lead to future debate. It starts with Chapter XI, by Kock and Hantula, where the authors claim that human beings are not genetically designed to efficiently use e-collaboration technologies and provide a discussion of counterintuitive implications in the context of e-collaboration. Chapter XII, by Smith and Hayne, follows with an integration of recent theories of cognition (distributed cognition, transactive memory, and

template theory) from the perspective of e-collaboration. Chapter XIII, by Dennis and Williams, reports on a meta-analysis of the effects of group size on electronic brainstorming, verbal brainstorming, and nominal group brainstorming; concluding that as group size increases, the relative benefit of electronic brainstorming also increases. Chapter XIV, by Pinsonneault and Caya, reviews the extant empirical literature on virtual teams and presents, in the words of the authors, "what we know and what we don't know about them", following that with the proposal of a framework that integrates the most important variables affecting virtual teams. Chapter XV, by George and Marett, concludes Section III of the book by discussing how the art of deception in e-collaboration can potentially affect both the current and future efforts of those involved, and offers the authors' thoughts on some of the factors e-collaboration practitioners should consider when trying to combat electronic deception.

The range of topics covered in this book is certainly broad and representative of the state-of-the-art discussion of conceptual and applied e-collaboration issues. If one looks at the broad literature on e-collaboration, as well as its impact in academic and industry circles, it becomes clear that this book brings together the best in terms of thinking in the field. The authors of the chapters in this book are among the most accomplished and influential e-collaboration researchers in the world. I thank them for being contributors to this book, and am honored to have been able to serve as its editor.

Ned Kock
Editor-in-Chief
Emerging E-Collaboration Concepts and Applications