Foreword

Let me first open this foreword with a note on what this book is not all about. It is not a book about what Web services are, the detailed programming implementation of Web services, or the architecture of Web services; rather, this is a book about Web services quality. Quality properties influence the Web services products. With the increasing complexity of information systems and their integration with Web services, there is a need for a minimum level of quality assurances. This book is a reflection of quality issues of Web services as an important topic. It attempts to address the often-neglected quality aspects of Web services. I have seen many books on Web services, but this book is different in the sense that it focuses largely on quality issues of Web services. The quality properties addressed in this book are testability, dependability, maintainability, usability, security, quality of service (QoS) of multimedia delivery, and measurement and management of QoS. Barely focusing on the technical programming issues of Web services and ignoring the quality issues of the technology can lead to the adaptation process of Web services failure.

This book is an effort to further the response of the researchers and practitioners to the needs for quality achievement, and it reflects the increasing interest in quality Web services. Systems quality is not just about good quality; these are integral attributes and properties of Web services throughout the lifecycle of the system. Many excellent books have been written on Web services, but there is a relative lack of literature on Web services that focuses solely on the quality issues of this technology. My former student Khaled Khan's book definitely represents a little contribution to fill this gap. I have known him since 1989 and he has a passion for the quality of software systems. As a result, in 2005, he edited a book on software maintenance and evolution. In this book on Web services quality, Khaled does a good job of bringing the quality issue of Web services to focus. The collection of selected chapters sheds some light on various quality issues related to Web services. He has managed to achieve a good balance between the technical details of quality aspects and of managerial aspects of the issue; the right blend of these makes reading of the book more enjoyable.

The book includes several chapters with advanced research output. However, the Preface written by Khaled provides a couple of introductory paragraphs of Web services basics as well as sets the scene of the book. Some case studies presented in the book illustrate how the Web services can be effectively used to achieve quality requirements of enterprises. Some real-life examples discussed in various chapters pull together the theory and issues discussed elsewhere in the book. The chapters are presented in an easy-to-understand way. The issue of quality in Web services certainly gives a compelling reason to read this book, and to apply or develop further the underlying concepts discussed in the book. The chosen topics

are timeless, and the relevancy of the presented issues remains for a long time. Undoubtedly, this text will become an important reference for many Web services researchers, developers, as well as users.

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Torbjørn Skramstad is a professor of computer science at the Norwegian University of Science and Technology, NTNU, and chief research scientist in DNV Research and Innovation. He has more than 35 years of experience from the software engineering and software development field as a software engineer, consultant, project manager, and professional technical expert. He has also been quality manager in one of Norway's largest software companies. His main areas of experience and expertise include software development methodologies, software quality assurance, software metrics, software project risk analysis, project management, and independent software verification/validation. Dr. Skramstad covers theoretical aspects combined with an extensive practical experience. His current interests are in the area of assessment of dependability critical software and systems.