# Table of Contents

**Preface** .................................................................................................................................................. i

**Section I: Web-Enabling Interorganizational Communications in Healthcare ........................................................... 1**

1. The Impact of the Global, Extensible Electronic Health Record ................................................................. 3
   *David W. Forslund, Los Alamos National Laboratory*
   *David G. Kilman, Theragraphics, Inc.*

2. UK Primary Healthcare Groups: Stakeholders, Technology and Benefits ....................................................... 14
   *Ray Hackney, Manchester Metropolitan University*
   *Neil McBride, DeMontfort University*

   *Grace Johnson, Anand Kumar, Arkalgud Ramaprasad, and Madhusudhan Reddy*
   *Southern Illinois University at Carbondale*

4. Teleradiology: IT-Based Co-operation and Networking in Public Health ........................................................ 45
   *Stefan Kirn and Christian Heine*
   *Technical University of Ilmenau, Institute of Information Systems*
Section II: Web Enabling the Health Organization .................. 57

5. Telemedicine: Generating the Virtual Office Visit ............... 59
   Jeanine W. Turner, Georgetown University

6. Automating Patients Admission: Proactive Leadership
   on a Shoestring ........................................................... 69
   Hans Lehmann and Terence Wee
   University of Auckland

7. Transforming Legacy Systems into a Valuable Heritage:
   The Case of the FixIT Migration Tools in Finland ............ 92
   Mikko Korpela, Juha Mykkänen, Mika Räsänen,
   Hellevi Ruonamaa, and Marko Sormunen
   University of Kuopio

8. Disseminating Cost Information Through a Corporate
   Intranet: A Case Study and Lessons Learned.................... 109
   Rajiv Kohli, University of Notre Dame and
   Holy Cross Health System
   David Ziege, Holy Cross Health System

Section III: Web-Based Clinical Applications ...................... 122

9. Enhancing Knowledge Management in a Multi-Center
   Clinical Trial by a Web-Based Knowledge Medium .......... 124
   Rolf Grütter and Katarina Stanojevska-Slabeva
   University of St. Gallen
   Walter Fierz, Institute for Clinical Microbiology
   and Immunology

10. A Decision Technology System To Advance the
    Diagnosis and Treatment of Breast Cancer ..................... 141
    Guisseppi A. Forgionne, Aryya Gangopadhyay
    and Monica Adya
    University of Maryland Baltimore County
11. Web-Enabled Integration of Patient Data and Clinical Guidelines for Coordinated Care ........................................ 151
James R. Warren and Joseph T. Noone
University of South Australia

12. Using Web-Enabled Technology To Promote The Adoption Of Practice Guidelines ........................................ 172
James G. Anderson, Purdue University
Linda L. Casebeer, Robert E. Kristofco, Angela S. Carillo
University of Alabama School of Medicine

Section IV: Web-Empowering Health Practitioners and Patients ................................................................. 186

13. Patient-Doctor Interconnectivity: Improving Health Care Management and Patient Compliance With Web Technology ......................................................... 188
Jerry B. Weinberg, Steven P. Klein, Robert Klepper,
Bernard Waxman, Xudong Yu
Southern Illinois University-Edwardsville
Daniel K. Anderson, Grinnell Regional Medical Center

14. A Web-Based Solution for Enhancing Diabetic Well-Being... 205
Riita Söderlund and Pekka Reijonen, University of Turku/Laboris
Malin Brännback, Turku School of Economics and Business Administration

15. The Web-Enabled Patient .......................................................... 222
Michèle Lemaire, Anabase International Corp., USA

Catherine E. Bridge and Simeon Simoff
University of Sydney

About the Authors ........................................................................................................................................ 266

Index ......................................................................................................................................................... 275