Effective Healthcare Information Systems

Table of Contents

Foreword ............................................................................................................................. i
   Adi Armoni
   Tel Aviv University

Preface ...................................................................................................................................... v

Chapter 1. Strategies for Healthcare Information Systems ......................... 1
   Ton A. M. Spil and Robert A. Stegwee
   University of Twente, The Netherlands

Chapter 2. Experiences in SIS Implementation in UK Healthcare ... 13
   Stuart J. Barnes
   University of Bath, United Kingdom

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

Chapter 4. The Use of Artificial Intelligence Techniques and Applications in the Medical Domain ................................................................. 57
   Adi Armoni
   Tel-Aviv College of Management, Israel

Chapter 5. An Intelligent Data Mining System to Detect Healthcare Fraud ........................................................................................................ 75
   Guiseppe A. Forgionne, Aryya Gangopadhyay and Monica Adya
   University of Maryland-Baltimore County, USA

   Francis Lau, University of Alberta, Canada
   Marilynne Hebert, University of British Columbia, Canada
Chapter 7. The Role of User Ownership and Positive User Attitudes in the Successful Adoption of Information Systems within NHS Community Trusts ................................................................. 113

Crispin R. Coombs, Neil F. Doherty and John Loan-Clarke
Loughborough University, United Kingdom

Chapter 8. Introducing Computer-Based Telemedicine in Three Rural Missouri Counties ................................................................................................................... 138

Kimberly D. Harris, Duquesne University, USA
Joseph F. Donaldson and James D. Campbell,
University of Missouri-Columbia, USA

Chapter 9. VDT Health Hazards: A Guide for End Users and Managers .......................................................................................................................... 158

Carol Clark, Middle Tennessee State University, USA

Chapter 10. The User Interface for a Computerized Patient Record System for Primary Health Care in a Third World Environment ..... 169

P. J. Blignaut and T. McDonald
University of the Orange Free State, Republic of South Africa


Rolf Grutter and Katarina Stanoevska-Slabeva
University of St. Gallen, Switzerland
Walter Fierz, Institute for Clinical Microbiology and Immunology, Switzerland

Chapter 12. Mobile Computing at the Department of Defense ...... 192

James A. Rodger, Indiana University of Pennsylvania, USA
Parag C. Pendharkar and Mehdi Khosrow-Pour
Pennsylvania State University, USA

Chapter 13. Physician Use of Web-Based Technology: Hype vs. Reality ................................................................................................................................. 210

Linda Roberge, Syracuse University, USA

Chapter 14. The Quality of Medical Information on the Internet: Some Current Evaluation Frameworks ................................................................. 220

Carmine Sellitto, Victoria University of Technology, Australia
Chapter 15. Information System Failures in Healthcare Organizations: Case Study of a Root Cause Analysis ..................................................231
Pamela E. Paustian, Donna J. Slovensky and Jacqueline W. Kennedy University of Alabama at Birmingham, USA

Jonathan Wareham and Richard Klein Georgia State University, USA

Chapter 17. CORBAMed and DHE: Middleware Service Approach in Healthcare Information Systems...........................................................249
Dongsong Zhang and Ralph Martinez University of Arizona, USA

Chapter 18. Scanning and Image Processing System (SIPS) for Medication Ordering ............................................................................................262
Stephen L. Chan, Hong Kong Baptist University, Hong Kong

Chapter 19. Organizational and Implementation Issues of Patient Data Management Systems in an Intensive Care Unit ..............................274
Nathalie Mitev, The London School of Economics, United Kingdom Sharon Kerkham, Salford University, United Kingdom

Chapter 20. Studying the Translations of NHSnet ...........................................294
Edgar A. Whitley, London School of Economics and Political Science, United Kingdom Athanasia Pouloudi, Brunel University, United Kingdom

About the Editor ......................................................................................316

Index ..........................................................................................................317