Contents

Volume I

Section I. Fundamental Concepts and Theories

This section serves as the foundation for this exhaustive reference source by addressing crucial theories essential to the understanding of ubiquitous and pervasive computing. Chapters found within this section provide a framework in which to position ubiquitous and pervasive tools and technologies within the field of information science and technology. Individual contributions provide overviews of ubiquitous grids, ambient intelligence, ubiquitous networking, and radio frequency identification (RFID). Within this introductory section, the reader can learn and choose from a compendium of expert research on the elemental theories underscoring the research and application of ubiquitous and pervasive computing.

Chapter 1.1. Introduction to Ubiquitous Computing ................................................................. 1
Max Mühlhäuser, Technische Universität Darmstadt, Germany
Iryna Gurevych, Technische Universität Darmstadt, Germany

Chapter 1.2. Ubiquitous Computing History, Development, and Scenarios ....................... 20
Jimmy Chong, Nanyang Technological University, Singapore
Stanley See, Nanyang Technological University, Singapore
Lily Leng-Hiang Seah, Nanyang Technological University, Singapore
Sze Ling Koh, Nanyang Technological University, Singapore
Yin-Leng Theng, Nanyang Technological University, Singapore
Henry B. L. Duh, Nanyang Technological University, Singapore

Chapter 1.3. The Ubiquitous Portal ......................................................................................... 28
Arthur Tatnall, Victoria University, Australia

Chapter 1.4. The Ubiquitous Grid............................................................................................. 35
Patricia Sedlar, Johannes Kepler University, Austria
Chapter 1.5. RFID Technologies and Applications

Christian Kaspar, Georg-August-Universität Göttingen, Germany
Adam Melski, Georg-August-Universität Göttingen, Germany
Britta Lietke, Georg-August-Universität Göttingen, Germany
Madlen Boslau, Georg-August-Universität Göttingen, Germany
Svenja Hagenhoff, Georg-August-Universität Göttingen, Germany

Chapter 1.6. Understanding RFID (Radio Frequency Identification)

Susan A. Vowels, Washington College, USA

Chapter 1.7. Radio Frequency Identification History and Development

Chin-Boo Soon, The University of Auckland, New Zealand

Chapter 1.8. Automated Data Capture Technologies: RFID

Vidyasagar Potdar, Curtin University of Technology, Australia
Chen Wu, Curtin University of Technology, Australia
Elizabeth Chang, Curtin University of Technology, Australia

Chapter 1.9. Contactless Payment with RFID and NFC

Marc Pasquet, GREYC Laboratory (ENSICAEN – Université Caen Basse Normandie - CNRS), France
Delphine Vacquez, ENSICAEN, France
Joan Reynaud, GREYC Laboratory (ENSICAEN – Université Caen Basse Normandie - CNRS), France
Félix Cuozzo, ENSICAEN, France

Chapter 1.10. Ambient Intelligence

Fariba Sadri, Imperial College London, UK
Kostas Stathis, Royal Holloway, University of London, UK

Chapter 1.11. Ambient Intelligence in Perspective

Caroline Byrne, Institute of Technology Carlow, Ireland
Michael O’Grady, University College Dublin, Ireland
Gregory O’Hare, University College Dublin, Ireland

Chapter 1.12. Ambient Intelligence Environments

Carlos Ramos, Polytechnic of Porto, Portugal

Chapter 1.13. On Ambient Information Systems: Challenges of Design and Evaluation

William R. Hazlewood, Indiana University Bloomington, USA
Lorcan Coyle, University College Dublin, Ireland

Chapter 1.14. Basics of Ubiquitous Networking

Kevin Park, University of Auckland, New Zealand
Jairo A. Gutiérrez, University of Auckland, New Zealand
Section II. Development and Design Methodologies

This section provides in-depth coverage of conceptual architectures, frameworks and methodologies related to the design of ubiquitous and pervasive tools, models, and interfaces. Throughout these contributions, fundamental development methodologies are presented and discussed. From broad examinations to specific discussions of particular frameworks and infrastructures, the research found within this section spans the discipline while also offering detailed, specific discussions. Basic designs, as well as abstract developments, are explained within these chapters, and frameworks for designing successful interactive systems, educational models, and mobile devices are examined.

Chapter 2.1. Ubiquitous and Pervasive Application Design
M. Bakhouya, The George Washington University, Washington DC, USA
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Chapter 2.2. When Ubiquitous Computing Meets Experience Design: Identifying Challenges for Design and Evaluation
Ingrid Mulder, Telematica Instituut and Rotterdam University, The Netherlands
Lucia Terrenghi, Vodafone Group R&D, Germany

Chapter 2.3. Designing Ubiquitous Content for Daily Lifestyle
Masa Inakage, Keio University, Japan
Atsuro Ueki, Keio University, Japan
Satoru Tokuhisa, Keio University, Japan
Yuichiro Katsumoto, Keio University, Japan

Chapter 2.4. Designing Pervasive and Multimodal Interactive Systems: An Approach Built on the Field
Barbara R. Barricelli, Università degli Studi di Milano, Italy
Piero Mussio, Università degli Studi di Milano, Italy
Marco Padula, Istituto per le Tecnologie della Costruzione – Consiglio Nazionale delle Ricerche, Italy
Andrea Marcante, Università degli Studi di Milano, Italy
Loredana Parasiliti Provenza, Università degli Studi di Milano, Italy
Paolo L. Scala, Istituto per le Tecnologie della Costruzione – Consiglio Nazionale delle Ricerche, Italy

Chapter 2.5. Pervasive Computing: A Conceptual Framework
Varuna Godara, University of Western Sydney, Australia
Chapter 2.6. Developing User Interfaces for Community-Oriented Workflow Information Systems ........................................................... 253
Josefina Guerrero García, Université catholique de Louvain, Louvain School of Management (LSM), Belgium
Jean Vanderdonckt, Université catholique de Louvain, Louvain School of Management (LSM), Belgium
Juan Manuel González Calleros, Université catholique de Louvain, Louvain School of Management (LSM), Belgium

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Zacharias Lekkas, National & Kapodistrian University of Athens, Greece
Constantinos Mourlas, National & Kapodistrian University of Athens, Greece
George Samaras, University of Cyprus, Cyprus

Chapter 2.9. Deploying Ubiquitous Computing Applications on Heterogeneous Next Generation Networks ............................................................ 330
Achilles D. Kameas, Hellenic Open University and Computer Technology Institute / DAISy group, Greece

Raquel Navarro-Prieto, Fundació Barcelona Media, Spain
Nídia Berbegal, Universitat Pompeu Fabra, Spain

Chapter 2.11. Designing a Ubiquitous Audio-Based Memory Aid ..................................................... 370
Shwetak N. Patel, Georgia Institute of Technology, USA
Khai N. Truong, University of Toronto, Canada
Gillian R. Hayes, Georgia Institute of Technology, USA
Giovanni Iachello, Georgia Institute of Technology, USA
Julie A. Kientz, Georgia Institute of Technology, USA
Gregory D. Abowd, Georgia Institute of Technology, USA

Chapter 2.12. A Navigational Aid for Blind Pedestrians Designed with User- and Activity-Centered Approaches ........................................ 389
Florence Gaunet, Laboratoire Eco-Anthropologie et Ethnobiologie UMR 5145, CNRS, France
Xavier Briffault, CESAMES UMR 8136, Université René-Descartes Paris V, France
Section III. Tools and Technologies

This section presents extensive coverage of the tools and specific technologies that change the way we interact with and respond to our environments. These chapters provide an in-depth analysis of the use and development of innumerable devices and tools, while also providing insight into new and upcoming technologies, theories, and instruments that will soon be commonplace. Within these rigorously researched chapters, readers are presented with examples of specific tools, such as video surveillance systems, smart antennas, mobile technologies, and GIS systems. In addition, the successful implementation and resulting impact of these various tools and technologies are discussed within this collection of chapters.

Chapter 3.1. Deploying Pervasive Technologies .................................................. 503
    Juan-Carlos Cano, Technical University of Valencia, Spain
    Carlos Tavares Calafate, Technical University of Valencia, Spain
    Jose Cano, Technical University of Valencia, Spain
    Pietro Manzoni, Technical University of Valencia, Spain

Chapter 3.2. Embedding Ubiquitous Technologies ............................................. 511
    Susan A. Elwood, Texas A&M University, Corpus Christi, USA

Chapter 3.3. Ubiquitous Computing Technologies in Education .......................... 520
    Gwo-Jen Hwang, National University of Tainan, Taiwan
    Ting-Ting Wu, National University of Tainan, Taiwan
    Yen-Jung Chen, National University of Tainan, Taiwan
Chapter 3.4. Mobile and Pervasive Technology in Education and Training: Potential and Possibilities, Problems and Pitfalls

Mark J. W. Lee, Charles Sturt University, Australia

Chapter 3.5. A SCORM Compliant Courseware Authoring Tool for Supporting Pervasive Learning

Te-Hua Wang, Tamkang University, China
Flora Chia-I Chang, Tamkang University, China

Volume II

Chapter 3.6. Realizing the Promise of RFID: Insights from Early Adopters and the Future Potential

Velan Thillairajah, EAI Technologies, USA
Sanjay Gosain, The Capital Group Companies, USA
Dave Clarke, GXS, USA

Chapter 3.7. The Little Chip that Could: The Public Sector and RFID

David C. Wyld, Southeastern Louisiana University, USA


Massimo Memmola, Catholic University, Italy
Giovanna Palumbo, Ospedale Valduce, Italy
Mauro Rossini, Ospedale Valduce, Italy

Chapter 3.9. Smart Antennas for Automatic Radio Frequency Identification Readers

Nemai Chandra Karmakar, Monash University, Australia

Chapter 3.10. Getting to Know Social Television: One Team’s Discoveries from Library to Living Room

Gunnar Harboe, Motorola, USA
Elaine Huang, Motorola, USA
Noel Massey, Motorola, USA
Crysta Metcalf, Motorola, USA
Ashley Novak, Motorola, USA
Guy Romano, Motorola, USA
Joe Tullio, Motorola, USA

Chapter 3.11. Pervasive iTV and Creative Networked Multimedia Systems

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Stephen Johnson, Mobility Research Centre, UK
Section IV. Utilization and Application

This section introduces and discusses the utilization and application of ubiquitous and pervasive computing technologies. These particular selections highlight, among other topics, pervasive healthcare, the utilization of handheld computers, and m-commerce. Contributions included in this section provide coverage of the ways in which technology increasingly becomes part of our daily lives through the seamless integration of specific tools into existing processes.

Chapter 4.1. Pervasive Healthcare: Problems and Potentials ................................................................. 764
Niels Boye, University of Aalborg, Denmark

Chapter 4.2. Intelligent Agent Framework for Secure Patient-Doctor Profiling and Profile Matching .................................................................................................................. 782
Masoud Mohammadian, University of Canberra, Australia
Ric Jentsch, Compucat Research Pty Limited, Australia

Chapter 4.3. Using RFID to Track and Trace High Value Products: The Case of City Healthcare ................................................................................................................................. 802
Judith A. Symonds, Auckland University of Technology, New Zealand
David Parry, Auckland University of Technology, New Zealand

Chapter 4.4. Implementing RFID Technology in Hospital Environments ................................................. 815
Marilyn Kemper Littman, Nova Southeastern University, USA
Chapter 4.5. RFID as the Critical Factor for Superior Healthcare Delivery ........................................... 823
  A. Dwivedi, University of Hull, UK
  T. Butcher, University of Hull Logistics Institute (UHLI), UK

Chapter 4.6. An Ambient Intelligence Based Multi-Agent System for Alzheimer Health Care .......... 833
  Dante I. Tapia, Universidad de Salamanca, Spain
  Juan M. Corchado, Universidad de Salamanca, Spain

Chapter 4.7. Ubiquitous Healthcare: Radio Frequency Identification (RFID) in Hospitals .............. 845
  Cheon-Pyo Lee, Carson-Newman College, USA
  J. P. Shim, Mississippi State University, USA

Chapter 4.8. Ubiquitous Risk Analysis of Physiological Data ............................................................ 853
  Daniele Apiletti, Politecnico di Torino, Italy
  Elena Baralis, Politecnico di Torino, Italy
  Giulia Bruno, Politecnico di Torino, Italy
  Tania Cerquitelli, Politecnico di Torino, Italy

Chapter 4.9. RFID in Healthcare: A Framework of Uses and Opportunities. ................................. 867
  Nebil Buyurgan, University of Arkansas, USA
  Bill C. Hardgrave, University of Arkansas, USA
  Janice Lo, Baylor University, USA
  Ronald T. Walker, University of Arkansas, USA

Chapter 4.10. Tapping into Digital Literacy: Handheld Computers in the K-12 Classroom .......... 886
  Mark van ’t Hooft, Kent State University, USA

Chapter 4.11. Internet-Enabled User Interfaces for Distance Learning ............................................ 905
  Wei Liu, National University of Singapore, Singapore
  Keng Soon Teh, National University of Singapore, Singapore
  Roshan Petris, National University of Singapore, Singapore
  Yongsoon Choi, National University of Singapore, Singapore
  Adrian David Cheok, National University of Singapore, Singapore
  Charissa Lim Mei-Ling, Nanyang Technological University, Singapore
  Yin-Leng Theng, Nanyang Technological University, Singapore
  Ta Huynh Duy Nguyen, National University of Singapore, Singapore
  Tran Cong Thien Qui, National University of Singapore, Singapore
  Athanasios V. Vasilakos, University of Peloponnese, Greece

Chapter 4.12. Handhelds for Digital Libraries ................................................................. 931
  Spyros Veronikis, Ionian University, Greece
  Giannis Tsakonas, Ionian University, Greece
  Christos Papatheodorou, Ionian University, Greece
Section V. Organizational and Social Implications

This section includes a wide range of research pertaining to the social and organizational impact of ubiquitous and pervasive computing around the world. Chapters included in this section analyze the cultural dimension of pervasive computing, consumer reactions to RFID, and user acceptance of technology. The inquiries and methods presented in this section offer insight into the implications of ubiquitous and pervasive computing at both an individual and organizational level, while also emphasizing potential areas of study within the discipline.

Chapter 5.1. Cultural Dimension in the Future of Pervasive Computing
B.K. Mangaraj, XLRI Jamshepur, School of Business and Human Resources, Jamshedpur, India
Upali Aparajita, Utkal University, India

Chapter 5.2. Outline of the Human Factor Elements Evident with Pervasive Computers
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Antony Glambedakis, University of Western Sydney, Australia

Chapter 5.3. Adapting to the User
Matthias Jöst, European Media Laboratory GmbH, Germany

Chapter 5.4. How Research can Help to Create Commercially Successful Ubiquitous Services
Teea Palo, University of Oulu, Finland
Kaisa Koskela, University of Oulu, Finland
Timo Koivumäki, VTT Technical Research Centre of Finland, Finland
Jaana Tähtinen, University of Oulu, Finland

Chapter 5.5. Knowledge Sharing and Pervasive Computing: The Need for Trust and a Sense of History
Phillip W J Brook, University of Western Sydney, Australia

Chapter 5.6. Ubiquitous Communication: Where is the Value Created in the Multi-Play Value Network?
Mikko Pynnönen, Lappeenranta University of Technology, Finland
Jukka Hallikas, Lappeenranta University of Technology, Finland
Petri Savolainen, Lappeenranta University of Technology, Finland
Karri Mikkonen, TeliaSonera, Sweden
Chapter 5.7. Identity Management for Wireless Service Access
Mohammad M. R. Chowdhury, University Graduate Center – UniK, Norway
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Chapter 5.8. Inscribing Interpretive Flexibility of Context Data in Ubiquitous Computing Environments: An Action Research Study of Vertical Standard Development
Magnus Andersson, Viktoria Institute, Sweden
Rikard Lindgren, University of Gothenburg, Sweden & Viktoria Institute, Sweden

Chapter 5.9. Consumer Attitudes toward RFID Usage
Madlen Boslau, Georg-August-Universität Göttingen, Germany
Britta Lietke, Georg-August-Universität Göttingen, Germany

Chapter 5.10. Determinants of User Acceptance for RFID Ticketing Systems
Dimitrios C. Karaiskos, Athens University of Business and Economics, Greece
Panayiotis E. Kourouthanassis, Athens University of Business and Economics, Greece

Chapter 5.11. An Empirical Study of Factors Affecting RFID’s Adoption in Taiwan
Dong-Her Shih, National Yunlin University of Science & Technology, Taiwan
Yuh-Wen Chiu, National Yunlin University of Science & Technology, Taiwan
She-I Chang, National Chung Cheng University, Taiwan
David C. Yen, Miami University, USA

Chapter 5.12. Impact of RFID Technology on Health Care Organizations
Véronique Nabelsi, École Polytechnique de Montréal, Canada
Florina Stefanescu, ePoly Centre of Expertise in Electronic Commerce, Canada

Chapter 5.13. Learning by Pervasive Gaming: An Empirical Study
Christian Kittl, evolaris Privatstiftung, Austria & Karl-Franzens University, Austria
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Andrew Gower, BT Innovate, UK
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Teresa Dillon, Polar Produce, UK
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Volume III

Section VI. Managerial Impact

This section presents contemporary coverage of the managerial implications of ubiquitous and pervasive computing. Particular contributions address pervasive business infrastructure, RFID and the supply chain, and employee surveillance. The managerial research provided in this section allows executives, practitioners, and researchers to gain a better sense of how ubiquitous and pervasive computing can impact and inform practices and behavior.

  Varuna Godara, University of Western Sydney, Australia

Chapter 6.2. Decision Analysis for Business to Adopt RFID ........................................................... 1219
  Koong Lin, Tainan National University of the Arts, Taiwan
  Chad Lin, Edith Cowan University, Australia
  Huei Leu, Industrial Technology Research Institute, Taiwan

Chapter 6.3. Intelligent Supply Chain Management with Automatic Identification Technology ................................................. 1228
  Dong Li, University of Liverpool, UK
  Xiaojun Wang, University of Liverpool, UK
  Kinching Liu, University of Liverpool, UK
  Dennis Kehoe, University of Liverpool, UK

Chapter 6.4. When Does RFID Make Business Sense for Managing Supply Chain? ...................... 1250
  Ertunga C. Özelkan, The University of North Carolina at Charlotte, USA
  Agnes Galambosi, The University of North Carolina at Charlotte, USA

Chapter 6.5. RFID and Supply Chain Visibility ............................................................................... 1284
  Sumeet Gupta, Shri Sankaracarya Institute of Management and Technology, India
  Miti Garg, The Logistics Institute – Asia Pacific, Singapore
  Heng Xu, The Pennsylvania State University, USA
  Mark Goh, NUS Business School, The Logistics Institute – Asia Pacific, Singapore

Chapter 6.6. Security and Reliability of RFID Technology in Supply Chain Management ........................................................... 1293
  Vladimír Modrák, Technical University of Košice, Slovakia
  Peter Knuth, Technical University of Košice, Slovakia

Chapter 6.7. Recognizing RFID as a Disruptive Technology........................................................... 1301
  Chin-Boo Soon, The University of Auckland, New Zealand
  Jairo A. Gutiérrez, The University of Auckland, New Zealand
Section VII. Critical Issues

This section addresses conceptual and theoretical issues related to the field of ubiquitous and pervasive computing. Within these chapters, the reader is presented with analysis of the most current and relevant conceptual inquires within this growing field of study. Particular chapters discuss ethical issues in pervasive computing, privacy issues, and quality of experience. Overall, contributions within this section ask unique, often theoretical questions related to the study of ubiquitous and pervasive computing and, more often than not, conclude that solutions are both numerous and contradictory.

Chapter 7.1. The Ethical Debate Surrounding RFID
Stephanie Etter, Mount Aloysius College, USA
Patricia G. Phillips, Duquesne University, USA
Ashli M. Molinero, Robert Morris University, USA
Susan J. Nestor, Robert Morris University, USA
Keith LeDonne, Robert Morris University, USA

Chapter 7.2. Privacy Issues of Applying RFID in Retail Industry
Haifei Li, Union University, USA
Patrick C. K. Hung, University of Ontario Institute of Technology, Canada
Jia Zhang, Northern Illinois University, USA
David Ahn, Nyack College, USA

Chapter 7.3. An Evaluation of the RFID Security Benefits of the APF System: Hospital Patient Data Protection
John Ayoade, American University of Nigeria, Nigeria
Judith Symonds, Auckland University of Technology, New Zealand

Chapter 7.4. Security and Privacy in RFID Based Wireless Networks
Denis Trček, University of Ljubljana, Slovenia

Olli Pitkänen, Helsinki Institute for Information Technology (HIIT), Finland
Marketta Niemelä, VTT Technical Research Centre of Finland, Finland
Chapter 7.6. Privacy Factors for Successful Ubiquitous Computing ............................................... 1408
  Linda Little, Northumbria University, UK
  Pam Briggs, Northumbria University, UK

Chapter 7.7. Privacy Threats in Emerging Ubicomp Applications: Analysis and Safeguarding...... 1425
  Elena Vildjiounaite, VTT Technical Research Centre of Finland, Finland
  Tapani Rantakokko, Finwe LTD, Finland
  Petteri Alahuhta, VTT Technical Research Centre of Finland, Finland
  Pasi Ahonen, VTT Technical Research Centre of Finland, Finland
  David Wright, Trilateral Research and Consulting, UK
  Michael Friedewald, Fraunhofer Institute Systems and Innovation Research, Germany

Chapter 7.8. Deciphering Pervasive Computing: A Study of Jurisdiction, E-Fraud
  and Privacy in Pervasive Computing Environment ................................................................. 1450
  Grace Li, University of Technology, Sydney, Australia

Chapter 7.9. Privacy Control Requirements for Context-Aware Mobile Services .................... 1465
  Amr Ali Eldin, Accenture BV, The Netherlands
  Zoran Stojanovic, IBM Nederland BV, The Netherlands

Chapter 7.10. Access Control in Mobile and Ubiquitous Environments ...................................... 1481
  Laurent Gomez, SAP Research, France
  Annett Laube, SAP Research, France
  Alessandro Sorniotti, SAP Research, France

Chapter 7.11. Warranting High Perceived Quality of Experience (PQoE)
in Pervasive Interactive Multimedia Systems ................................................................................. 1498
  Anxo Cereijo Roibás, SCMIS, University of Brighton, UK

  and Challenges ............................................................................................................................. 1517
  Michael Zoumboulakis, University of London, UK
  George Roussos, University of London, UK

Chapter 7.13. Adaptive Resource and Service Management in
  a Mobile-Enabled Environment .................................................................................................. 1527
  Claudia Raibulet, Università degli Studi di Milano-Bicocca, Italy

  and Access .................................................................................................................................... 1549
  Lu Yan, University College London, UK
Section VIII. Emerging Trends

This section highlights research potential within the field of ubiquitous and pervasive computing while exploring uncharted areas of study for the advancement of the discipline. Chapters within this section highlight ambient learning, ubiquitous games, and new methods for patient monitoring. These contributions, which conclude this exhaustive, multi-volume set, provide emerging trends and suggestions for future research within this rapidly expanding discipline.

Chapter 8.1. Ambient Learning ................................................................. 1562
  Fernando Lyardet, Technische Universität Darmstadt, Germany

Chapter 8.2. Plastic Interfaces for Ubiquitous Learning ......................... 1582
  José Rouillard, Laboratoire LIFL - Université de Lille 1, France

Chapter 8.3. u-City: The Next Paradigm of Urban Development ............ 1601
  Jong-Sung Hwang, National Information Society Agency, Korea

Chapter 8.4. Planning for Knowledge Cities in Ubiquitous Technology Spaces: Opportunities and Challenges ......................................................... 1613
  Tschangho John Kim, University of Illinois at Urbana-Champaign, USA

Chapter 8.5. Emotional Ambient Media ...................................................... 1626
  Artur Lugmayr, Tampere University of Technology, Finland
  Tillmann Dorsch, Tampere University of Technology, Finland
  Pabo Roman Humanes, Tampere University of Technology, Finland

Chapter 8.6. Leveraging Semantic Technologies towards Social Ambient Intelligence ................................................................. 1643
  Adrien Joly, Alcatel-Lucent Bell Labs, France & Universite de Lyon, LIRIS/INSA, France
  Pierre Maret, Université de Lyon, France
  Fabien Bataille, Alcatel-Lucent Bell Labs, France

Chapter 8.7. From E to U: Towards an Innovative Digital Era .................. 1669
  Spyros P. Angelopoulos, Technical University of Crete, Greece
  Fotis C. Kitsios, Technical University of Crete, Greece
  Eduard Babulak, Fairleigh Dickinson University, Canada

Chapter 8.8. Ubiquitous Services and Business Processes ....................... 1688
  Alistair Barros, SAP Research, Australia

Chapter 8.9. Ambient Intelligence on the Dance Floor .............................. 1720
  Magy Seif El-Nasr, Penn State University, USA
  Athanasios V. Vasilakos, University of Peloponnese, Greece

Chapter 8.10. Adaptive Narration in Multiplayer Ubiquitous Games ........... 1738
  Stéphane Natkin, Conservatoire National des Arts et Métiers, Paris, France
  Chen Yan, Conservatoire National des Arts et Métiers, Paris, France
Chapter 8.11. Concept of Symbiotic Computing and its Agent-Based Application to a Ubiquitous Care-Support Service

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Kenji Sugawara, Chiba Institute of Technology, Japan
Tetsuo Kinoshita, Tohoku University, Japan
Fumio Hattori, Ritsumeikan University, Japan
Norio Shiratori, Tohoku University, Japan

Chapter 8.12. Adaptive Awareness of Hospital Patient Information through Multiple Sentient Displays

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Gustavo Berzunza, CICESE, Mexico