

CHAPMAN & HALL/CRC COMPUTER and INFORMATION SCIENCE SERIES

The Practical Handbook of INTERNET COMPUTING

Edited by
Munindar P. Singh



CHAPMAN & HALL/CRC

Contents

PART 1 Applications

1 Adaptive Hypermedia and Adaptive Web	1-1
<i>Peter Brusilovsky and Wolfgang Nejdl</i>	
2 Internet Computing Support for Digital Government.....	2-1
<i>Athman Bouguettaya, Abdelmounaam Rezgui, Brahim Medjahed, and Mourad Ouzzani</i>	
3 E-Learning Technology for Improving Business Performance and Lifelong Learning.....	3-1
<i>Darrell Woelk</i>	
4 Digital Libraries	4-1
<i>Edward A. Fox, Hussein Suleman, Devika Madalli, and Lillian Cassel</i>	
5 Collaborative Applications.....	5-1
<i>Prasun Dewan</i>	
6 Internet Telephony.....	6-1
<i>Henning Schulzrinne</i>	
7 Internet Messaging.....	7-1
<i>Jan Mark S. Wams and Maarten van Steen</i>	
8 Internet-Based Solutions for Manufacturing Enterprise Systems Interoperability — A Standards Perspective.....	8-1
<i>Nenad Ivezic, Boonserm Kulvatunyou, and Albert Jones</i>	
9 Semantic Enterprise Content Management.....	9-1
<i>Mark Fisher and Amit Sheth</i>	
10 Conversational Agents	10-1
<i>James Lester, Karl Branting, and Bradford Mott</i>	
11 Internet-Based Games	11-1
<i>R. Michael Young</i>	

PART 2 Enabling Technologies

12 Information Retrieval	12-1
<i>Vijay V. Raghavan, Venkat N. Gudivada, Zonghuan Wu, and William I. Grosky</i>	
13 Web Crawling and Search.....	13-1
<i>Todd Miller and Ling Liu</i>	
14 Text Mining	14-1
<i>Ian H. Witten</i>	
15 Web Usage Mining and Personalization	15-1
<i>Bamshad Mobasher</i>	
16 Agents.....	16-1
<i>Joseph P. Bigus and Jennifer Bigus</i>	
17 Multiagent Systems for Internet Applications.....	17-1
<i>Michael N. Huhns and Larry M. Stephens</i>	
18 Concepts and Practice of Personalization.....	18-1
<i>Manuel Aparicio IV and Munindar P. Singh</i>	
19 Online Marketplaces	19-1
<i>Michael P. Wellman</i>	
20 Online Reputation Mechanisms	20-1
<i>Chrysanthos Dellarocas</i>	
21 Digital Rights Management	21-1
<i>Mikhail Atallah, Keith Frikken, Carrie Black, Susan Overstreet, and Pooja Bhatia</i>	

PART 3 Information Management

22 Internet-Based Enterprise Architectures.....	22-1
<i>Francois B. Vernadat</i>	
23 XML Core Technologies	23-1
<i>Erik Wilde</i>	
24 Advanced XML Technologies.....	24-1
<i>Erik Wilde</i>	

25 Semistructured Data in Relational Databases	25-1
<i>Sudarshan Chawathe</i>	
26 Information Security	26-1
<i>Elisa Bertino and Elena Ferrari</i>	
27 Understanding Web Services.....	27-1
<i>Rania Khalaf, Francisco Curbera, William A. Nagy, Stefan Tai, Nirmal Mukhi, and Matthew Duftler</i>	
28 Mediators for Querying Heterogeneous Data	28-1
<i>Tore Risch</i>	
29 Introduction to Web Semantics.....	29-1
<i>Munindar P. Singh</i>	
30 Information Modeling on the Web	30-1
<i>Vipul Kashyap</i>	
31 Semantic Aspects of Web Services.....	31-1
<i>Sinuhe Arroyo, Ruben Lara, Juan Miguel Gomez, David Berka, Ying Ding, and Dieter Fensel</i>	
32 Business Process: Concepts, Systems, and Protocols	32-1
<i>Fabio Casati and Akhil Sahai</i>	
33 Information Systems.....	33-1
<i>Eric Yu</i>	

PART 4 Systems and Utilities

34 Internet Directories Using the Lightweight Directory Access Protocol	34-1
<i>Greg Lavender and Mark Wahl</i>	
35 Peer-to-Peer Systems.....	35-1
<i>Karl Aberer and Manfred Hauswirth</i>	
36 Data and Services for Mobile Computing	36-1
<i>Sasikanth Avancha, Dipanjan Chakraborty, Filip Perich, and Anupam Joshi</i>	
37 Pervasive Computing.....	37-1
<i>Sumi Helal and Choonhwa Lee</i>	
38 Worldwide Computing Middleware	38-1
<i>Gul A. Agha and Carlos A. Varela</i>	

39 Metacomputing and Grid Frameworks..... 39-1
Vaidy Sunderam

40 Improving Web Site Performance..... 40-1
Arun Iyengar, Erich Nahum, Anees Shaikh, and Renu Tewari

41 Web Caching, Consistency, and Content Distribution 41-1
Arun Iyengar, Erich Nahum, Anees Shaikh, and Renu Tewari

42 Content Adaptation and Transcoding..... 42-1
Surendar Chandra

PART 5 Engineering and Management

43 Software Engineering for Internet Applications 43-1
Laurie Williams

44 Web Site Usability Engineering..... 44-1
Melody Y. Ivory

45 Distributed Storage..... 45-1
Sumeet Sobti and Peter N. Yianilos

46 System Management and Security Policy Specification..... 46-1
Morris Sloman and Emil Lupu

47 Distributed Trust 47-1
John Ioannidis and Angelos D. Keromytis

48 An Overview of Intrusion Detection Techniques 48-1
Wenke Lee

49 Measuring the Internet..... 49-1
Nevil Brownlee and kc claffy

50 What is Architecture?..... 50-1
Wayne Clark and John Wacławsky

51 Overlay Networks..... 51-1
Joseph D. Touch

52 Network and Service Management..... 52-1
Mani Subramanian

PART 6 Systemic Matters

53 Web Structure.....	53-1
<i>Pinar Yolum</i>	
54 The Internet Policy and Governance Ecosystem.....	54-1
<i>Anthony M. Rutkowski</i>	
55 Human Implications of Internet Technologies	55-1
<i>L. Jean Camp and Ka-Ping Yee</i>	
56 The Geographical Diffusion of the Internet in the U.S.....	56-1
<i>Shane M. Greenstein and Jeff Prince</i>	
57 Intellectual Property, Liability, and Contract.....	57-1
<i>Jacqueline Schwerzmann</i>	
Index.....	I-1