

ENCYCLOPEDIA OF
PORTAL
TECHNOLOGIES
AND
APPLICATIONS



Arthur Tatnall

VOLUME I

Contents

by Volume

VOLUME I

Academic Management Portal, An / <i>Juha Kettunen, Mauri Kantola, and Jouni Hautala</i>	1
Academic Student Centered Portal, An / <i>Carla Falsetti, Sulmana Ramazzotti, Loredana De Giovanni, Alessandra Becci, and Giovanna Battistini</i>	6
Accessible Personalized Portals / <i>C. Doulgeraki, M. Antona, K. Balafa, and C. Stephanidis</i>	12
Accessing Administrative Environmental Information / <i>Thorsten Schlachter, Werner Geiger, Rainer Weidemann, Renate Ebel, Martina Tauber, Roland Mayer-Föll, Annette Sawade, Veronika Bachmann, and Brit Köther</i>	20
Accommodating End-Users' Online Activities with a Campus Portal / <i>Tharitpong Fuangvut and Helen Hasan</i>	26
Adoption of Portals Using Activity Theory / <i>Lorna Uden and Kimmo Salmenjoki</i>	35
African Web Portals / <i>Esharenana E. Adomi</i>	41
Analyzing Competition for a Web Portal / <i>Ch. Z. Patrikakis, A. Konstantas, M. Koukouli, N. Manouselis, and A. B. Sideridis</i>	47
Assessing Weblogs as Education Portals / <i>Ian Weber</i>	58
Australian General Practitioners' Use of Health Information / <i>Daniel Carbone</i>	65
Beijing Olympics (2008) Advertainment Portal, The / <i>Natalie Pang, Don Schauder, and Sanxing Cao</i>	70
Benefits and Limitations of Portals / <i>Michel Eboueya and Lorna Uden</i>	75
Bioinformatics Web Portals / <i>Mario Cannataro and Pierangelo Veltri</i>	82
Biotechnology Portals in Medicine / <i>Yoosuf Cader</i>	89
BIZEWEST Portal, The / <i>Alex Pliaskin</i>	94
Bluegem Portal, The / <i>Samantha Bax</i>	98
Business Challenges of Online Banking Portals / <i>Achraf Ayadi</i>	102
Business Module Differentiation / <i>Zhu Bing</i>	106
Case Study of an Integrated University Portal, A / <i>Tracy R. Stewart and Jason D. Baker</i>	114
Challenges and Pitfalls in Portal Information Management / <i>Fredric Landqvist and Dick Stenmark</i>	118

Changing the Interface to High School Education / <i>Greg Gebhart</i>	123
Coaching Portal for IT Project Management, A / <i>Yuriy Taranovych, Simone Rudolph, and Helmut Krcmar</i>	126
Collaborative Enterprise Portals / <i>Wita Wojtkowski</i>	134
Collaborative Real-Time Information Services via Portals / <i>Wei Dai</i>	140
Commercial and Open-Source Web Portal Solutions / <i>Américo Sampaio and Awais Rashid</i>	146
Commercialization of Web Portals / <i>Richard C Millham</i>	152
Community Geographic Domain Names / <i>Alison Norris</i>	157
Comparing Portals and Web Pages / <i>Connie L. Fulmer</i>	162
Comprehensive Methodology for Campus Portal Development, A / <i>Tharitpong Fuangvut and Helen Hasan</i>	166
Constructing and Deploying Campus Portals in Higher Education / <i>Tom S. Chan</i>	172
Content of Horizontal Portals, The / <i>Scott Bingley and Stephen Burgess</i>	178
Content-Incentive-Usability Framework for Corporate Portal Design, A / <i>Akhilesh Bajaj, Kiku Jones, and Lori N. K. Leonard</i>	182
Countermeasures for Protecting Legally Sensitive Web-Powered Databases and Web Portals / <i>Theodoros Evdoridis and Theodoros Tzouramanis</i>	188
Cross-Cultural Dimensions of National Web Portals / <i>Brian Dobing, Sajjad Zahir, and M. Gordon Hunter</i>	192
Declarative Approach for Designing Web Portals, A / <i>William Gardner, R. Rajugan, Elizabeth Chang, and Tharam S. Dillon</i>	197
Design of a Proposed Nursing Knowledge Portal / <i>Yin-Leng Theng, Hui Ling Chan, Fook Thim Liu, and Girish Gowda</i>	204
Designing a Portal and Community with the Community Generator / <i>Norbert Fröschle</i>	212
Designing Portals for Knowledge Work / <i>Ronald Maier and Thomas Hädrich</i>	217
Developing a Knowledge Management Portal / <i>Thomas W. Parsons, Thomas W. Jackson, and Ray Dawson</i>	223
Developing Online Learning Portals in Low Bandwidth Communities / <i>Mac van der Merwe and Lorna Uden</i>	228
Developing Semantic Portals / <i>Brooke Abrahams</i>	235
Development Strategy of Sina and Sohu, The / <i>Shen Libing and Dai Weihui</i>	244
Digital Interactive Channel Systems and Portals / <i>Christoph Schlueter Langdon and Alexander Bau</i>	249
Digital Rights Protection Management of Web Portals Content / <i>Theodoros Evdoridis and Theodoros Tzouramanis</i>	256
Dynamic Taxonomies and Intelligent User-Centric Access to Complex Portal Information / <i>Giovanni M. Sacco</i>	264
E-Business Standards Setting / <i>Kai Jakobs</i>	270

E-Commerce Portals / <i>Jesse S. Jin, Chee Chern Lim, and Man Hing Yu</i>	275
Economical Aspects when Deploying Enterprise Portals / <i>Shota Okujava and Ulrich Remus</i>	282
Education Portal Strategy / <i>Alf Neumann and Henrik Hanke</i>	290
Effects of Enterprise Portals on Knowledge Management Projects, The / <i>Rodrigo Baroni de Carvalho, Marta Araújo Tavares Ferreira, Chun Wei Choo, and Ricardo Vidigal da Silva</i>	296
Effort Estimation for the Development of Web Portals / <i>Sergio di Martino, Filomena Ferrucci, and Carmine Gravino</i>	304
E-Government Portals Personalization / <i>Giorgos Laskaridis, Konstantinos Markellos, Penelope Markellou, Angeliki Panayiotaki, and Athanasios Tsakalidis</i>	310
E-Management Portal and Organisational Behaviour / <i>Juha Kettunen, Mauri Kantola, and Jouni Hautala</i>	316
Empirical Study of a Corporate E-Learning Portal, An / <i>Meliha Handzic and Joon Ho Hur</i>	321
Employee Self-Service Portals / <i>Beverley Lloyd-Walker and Jan Soutar</i>	327
Empowerment and Health Portals / <i>Mats Edenius</i>	332
Enabling Technology and Functionalities of Shopping Portals / <i>Huà Luo and Yuan Gao</i>	337
Encouraging Global IS Collaborative Networks with a Knowledge Portal / <i>Carol Pollard, Prashant Palvia, Mary Lind, and Choton Basu</i>	341
Enhancing Electronic Governance in Singapore with Government Portals / <i>Leo Tan Wee Hin and R. Subramaniam</i>	348
Enhancing Portal Design / <i>Yuriy Taranovych, Michael Schermann, Andreas Schweiger, and Helmut Krcmar</i>	353
Enterprise Portals and Web Services Integration / <i>Ghazi Alkhatib and Zakaria Maamar</i>	360
E-Portals in Dubai and the United Arab Emirates / <i>Ian Michael</i>	364
European Quality Observatory / <i>Ulf-Daniel Ehlers</i>	368
Evaluation of Web Portals / <i>Demetrios Sampson</i>	376
E-Value Creation in a Government Web Portal in South Africa / <i>Blessing M. Maumbe, Wallace J. Taylor, Harold Wesso, and Geoff Erwin</i>	384
Evolution of Portals / <i>Lorna Uden and Kimmo Salmenjoki</i>	391
Evolution of the Milwaukee Public Schools Portal / <i>Ilona E. Holland</i>	397
Factors Affecting Portal Design / <i>Xiuzhen Feng</i>	402
From the Intranet to the Enterprise Knowledge Portal / <i>Carol Ann Barraclough, Udo Richard Averweg, and Angela Frances O'Byrne Spencer</i>	408
Future of Portals in E-Science, The / <i>Andrea Bosin, Nicoletta Dessì, Maria Grazia Fugini, Diego Liberati, and Barbara Pes</i>	413
Generic Model of an Enterprise Portal, A / <i>Xiuzhen Feng</i>	419

Guided Product Selection and Comparison of E-Commerce Portals / <i>Giovanni Maria Sacco</i>	425
Health Portals / <i>Daniel Carbone and Stephen Burgess</i>	431
Helping Chinese Enterprises be Successful in Global Markets / <i>Lu Xiyan</i>	437
Hosting Portals on an E-Marketplace / <i>Karyn Welsh and Kim Hassall</i>	442
How Corporate Portals Support Innovation / <i>Steven Gordon and Monideepa Tarafdar</i>	449
How to Promote Community Portals / <i>Aki Vainio, Kimmo Salmenjoki, Matti Tyynelä, and Lorna Uden</i>	454
Identifying Knowledge Assets in an Organisation / <i>Derek H.T. Walker, Tayyab Maqsood, and Andrew Finegan</i> ...	461
IFIP Portal, The / <i>Arthur Tatnall and Barrie J. Thompson</i>	469
Impacts and Revenues Models from Brazilian Portals / <i>Wellington Moraes, Alberto de Medeiros Jr., and Fernando José Barbin Laurindo</i>	476
Implementing Portals in Higher Education / <i>Allard Strijker and Petra Fisser</i>	482
Industry Portals for Small Businesses / <i>Enrico Scarso and Ettore Bolisani</i>	488
Information Visualization / <i>Wita Wojtkowski</i>	494
Intelligent-Agent-Supported Enterprise Information Portal / <i>Zaiyong Tang and Kallol Bagchi</i>	501
Interoperability Integrating E-Government Portals / <i>Giorgos Laskaridis, Penelope Markellou, Angeliki Panayiotaki, and Athanasios Tsakalidis</i>	507
Investing in Portals for Benefits and Gains / <i>Teemu Paavola</i>	513
Java Portals and Java Portlet Specification and API / <i>Gennaro Costagliola, Filomena Ferrucci, and Vittorio Fuccella</i>	516
KM Cyberary is a Gateway to Knowledge Resources / <i>G Bhojaraju</i>	522
Knowledge Servers / <i>Andrew Basden</i>	527
Large-Scale ASP Replication of Database-Driven Portals / <i>Christopher B. Mayer and K. Selçuk Candan</i>	532
Large-Scale Integrated Academic Portals / <i>Paolo Bellavista, Daniela Tibaldi, and Luca Garlaschelli</i>	538
Learning Geography with the G-Portal Digital Library / <i>Dion Hoe-Lian Goh, Yin-Leng Theng, Ee-Peng Lim, Jun Zhang, Chew Hung Chang, and Kalyani Chatterjea</i>	547
Library Portals and an Evolving Information Legacy / <i>Frederick Stielow</i>	554
Local Community Web Portal and Small Businesses, A / <i>Heather Fulford</i>	559

VOLUME II

Management Issues in Portlet Development / <i>Tony Polgar and Jana Polgar</i>	564
Metadata for a Web Portal / <i>Nikos Manouselis, Constantina Costopoulou, and Alexander Sideridis</i>	571

Mobile Portal for Academe, A / <i>Hans Lehmann, Stefan Berger, and Ulrich Remus</i>	577
Mobile Portal Technologies and Business Models / <i>David Parsons</i>	583
Mobile Portals / <i>Ofir Turel and Alexander Serenko</i>	587
Mobile Portals as Innovations / <i>Alexander Serenko and Ofir Turel</i>	594
Mobile Portals for Knowledge Management / <i>Hans Lehmann, Ulrich Remus, and Stefan Berger</i>	599
Modelling Public Administration Portals / <i>Pierfrancesco Foglia, Cosimo Antonio Prete, and Michele Zanda</i>	606
Models and Technologies for Adaptive Web Portals / <i>Lorenzo Gallucci, Mario Cannataro, and Pierangelo Veltri</i>	615
Modifying the News Industry with the Internet / <i>Christian Serarols-Tarrés</i>	624
Mouse Tracking to Assess Enterprise Portal Efficiency / <i>Robert S. Owen</i>	632
MP3 Player as a Mobile Digital Music Collection Portal, The / <i>David Beer</i>	637
Navigability Design and Measurement / <i>Hong Zhu and Yanlong Zhang</i>	642
Network-Centric Healthcare and the Entry Point into the Network / <i>Dag von Lubitz and Nilmini Wickramasinghe</i>	647
Ontologies in Portal Design / <i>G. Bhojaraju and Sarah Buck</i>	653
Ontology, Web Services, and Semantic Web Portals / <i>Ah Lian Kor and Graham Orange</i>	658
Open Access to Scholarly Publications and Web Portals / <i>Jean-Philippe Rennard</i>	669
Open Streaming Content Distribution Network, An / <i>Giancarlo Fortino and Carlos E. Palau</i>	677
Open-Source Online Knowledge Portals for Education / <i>Phillip Olla and Rod Crider</i>	684
Paradox of Social Portals / <i>Bill Davey and Arthur Tatnall</i>	689
Personal Portals / <i>Neal Shambaugh</i>	694
Personalizing Web Portals / <i>Pankaj Kathman and Hsueh-leng Pai</i>	699
Portal as Information Broker, The / <i>John Lamp</i>	705
Portal Development Tools / <i>Konstantinos Robotis and Theodoros Tzouramanis</i>	712
Portal Economics and Business Models / <i>Christoph Schlueter Langdon and Alexander Bau</i>	719
Portal Features of Major Digital Libraries / <i>Cavan McCarthy</i>	724
Portal for Artificial Intelligence in Education / <i>Beverly Park Woolf and Esma Aimeur</i>	737
Portal Models and Applications in Commodity-Based Environments / <i>Karyn Welsh and Kim Hassall</i>	743
Portal Quality Issues / <i>M. Angeles Moraga, Angélica Caro, Coral Calero, and Mario Piattini</i>	747
Portal Strategy for Managing Organizational Knowledge / <i>Zuopeng Zhang and Sajjad M. Jasimuddin</i>	755

Portal Technologies and Executive Information Systems Implementation / <i>Udo Averweg</i>	763
Portals and Interoperability in Local Government / <i>Peter Shackleton and Rick Molony</i>	769
Portals for Business Intelligence / <i>Andreas Becks and Thomas Rose</i>	776
Portals for Development and Use of Guidelines and Standards / <i>N. Partarakis, D. Grammenos, A. Mourouzis, and C. Stephanidis</i>	782
Portals for Integrated Competence Management / <i>Giuseppe Berio, Mounira Harzallah, and Giovanni Maria Sacco</i>	788
Portals for Knowledge Management / <i>Lorna Uden and Marja Naaranoja</i>	795
Portals for Workflow and Business Process Management / <i>Peter Dalmaris</i>	801
Portals in Application Integration / <i>JuanQiong Gou, Yu Chen, and TingTing Ma</i>	805
Portals in Consumer Search Behaviour and Product Customisation / <i>Ian Michael</i>	811
Portals in the Public Sector / <i>Ed Watson, Brian Schaefer, Karyn Holmes, Sylvia Vaught, and Wesley Smith</i>	814
Portals of the Mind / <i>Karen Simpson Nikakis</i>	821
Portals Supporting a Mobile Learning Environment / <i>Paul Crowther and Martin Beer</i>	826
Power and Politics in University Portal Implementation / <i>Konrad J. Peszynski and Brian Corbitt</i>	831
Presentation Oriented Web Services / <i>Jana Polgar</i>	835
Privacy Preserving Data Portals / <i>Benjamin C. M. Fung</i>	842
Project Management Web Portals and Accreditation / <i>Vicky Triantafillidis</i>	848
Providing Rating Services and Subscriptions with Web Portal Infrastructures / <i>Boris Galitsky, Mark Levene, and Andrei Akhrimenkov</i>	855
Provision of Product Support through Enterprise Portals / <i>Ian Searle</i>	863
Security Threats in Web-Powered Databases and Web Portals / <i>Theodoros Evdoridis and Theodoros Tzouramanis</i>	869
Semantic Community Portals / <i>Ina O'Murchu, Anna V. Zhdanova, and John G. Breslin</i>	875
Semantic Integration and Interoperability among Portals / <i>Konstantinos Kotis and George Vouros</i>	881
Semantic Portals / <i>Brooke Abrahams and Wei Dai</i>	887
Semantic Web Implications for Web Portals / <i>Pankaj Kamthan</i>	894
Semantic Web Portals / <i>Shouhong Wang and Hai Wang</i>	901
Semantic Web, RDF, and Portals / <i>Ah Lian Kor and Graham Orange</i>	905
Service Quality in E-Government Portals / <i>Fatma Bouaziz, Donia Rekik Fakhfakh, and Achraf Ayadi</i>	912
Setting Up and Developing an Educational Portal / <i>Luiz Antonio Joia and Elaine Tavares Rodrigues</i>	918
Sharing and Managing Knowledge through Portals / <i>Teemu Paavola</i>	924

SHRM Portals in the 21 st Century Organisation / <i>Beverley Lloyd-Walker and Jan Soutar</i>	927
SMEs and Portals / <i>Ron Craig</i>	934
Software Agent Augmented Portals / <i>Yuan Miao and Pietro Cerone</i>	940
Spatio-Temporal Portals for Continuously Changing Network Nodes / <i>Byunggu Yu and Ruben Gamboa</i>	947
SQL Injection Attack as a Threat of Web Portals / <i>Theodoros Tzouramanis</i>	953
Standardisation for Electronic Markets / <i>Kai Jakobs</i>	960
State Portals as a Framework to Standardize E-Government Services / <i>Paul Chalekian</i>	968
Strategic Planning Portals / <i>Javier Osorio</i>	974
Study of a Wine Industry Internet Portal, A / <i>Carmine Sellitto and Stephen Burgess</i>	979
Success Factors for the Implementation of Enterprise Portals / <i>Ulrich Remus</i>	985
Supplier Portal in the Automotive Industry, A / <i>Martina Gerst</i>	992
Supply Chain Management and Portal Technology / <i>Scott Paquette</i>	997
Supporting Pedagogical Strategies for Distance Learning Courses / <i>Joberto S. B. Martins and Maria Carolina Souza</i>	1002
Teaching Collaborative Web Portals Technology at a University / <i>Fuensanta Medina-Domínguez, Antonio de Amescua, Maria-Isabel Sánchez-Segura, and Javier García Guzmán</i>	1011
Topic-Oriented Portals / <i>Alexander Sigel and Khalil Ahmed</i>	1020
Two-Tier Approach to Elicit Enterprise Portal User Requirements, A / <i>Eric Tsui, Calvin Yu, and Adela Lau</i>	1026
Ubiquitous Access to Information through Portable, Mobile, and Handheld Devices / <i>Ch. Z. Patrikakis, P. Fafali, N. Minogiannis, and N. Kourbelis</i>	1033
Ubiquitous Portal, The / <i>Arthur Tatnall</i>	1040
University Portals as Gateway or Wall, Narrative, or Database / <i>Stephen Sobol</i>	1045
Usability Engineering and Research on Shopping Portals / <i>Yuan Gao and Hua Luo</i>	1050
Usability, Sociability, and Accessibility of Web Portals / <i>S. Ntoa, G. Margetis, A. Mourouzis, and C. Stephanidis</i>	1054
User Acceptance Affecting the Adoption of Enterprise Portals / <i>Steffen Moeller and Ulrich Remus</i>	1060
User Modeling in Information Portals / <i>George D. Magoulas</i>	1068
Using Intelligent Learning Objects in Adaptive Educational Portals / <i>Ricardo Azambuja Silveira, Eduardo Rodrigues Gomes, and Rosa Maria Vicari</i>	1074
Vertical Web Portals in Primary Education / <i>Lara Preiser-Houy and Margaret Russell</i>	1079
Visit Duration and Consumer Preference toward Web Portal Content / <i>Hsiu-Yuan Tsao, Koong H.-C. Lin, and Chad Lin</i>	1085

Visual Metaphors for Designing Portals and Site Maps / <i>Robert Laurini</i>	1091
Watermarking Integration into Portals / <i>Patrick Wolf and Martin Steinebach</i>	1104
Web Directories for Information Organization on Web Portals / <i>Xin Fu</i>	1110
Web Museums and the French Population / <i>Roxane Bernier</i>	1117
Web Museums as the Last Endeavor / <i>Roxane Bernier</i>	1124
Web Portal Application Development Technologies / <i>Américo Sampaio and Awais Rashid</i>	1131
Web Portal as a Collaborative Tool, The / <i>Michelle Rowe and Wayne Pease</i>	1138
Web Portal for Genomic and Epidemiologic Medical Data / <i>Mónica Miguélez Rico, Julián Dorado de la Calle, Nieves Pedreira Souto, Alejandro Pazos Sierra, and Fernando Martin Sánchez</i>	1144
Web Portal for the Remote Monitoring of Nuclear Power Plants, A / <i>Walter Hürster, Thomas Wilbois, Fernando Chaves, and Roland Obrecht</i>	1151
Web Portals as an Exemplar for Tourist Destinations / <i>Michelle Rowe, Wayne Pease, and Pauline McLeod</i>	1157
Web Portals Designed for Educational Purposes / <i>Lucy Di Paola and Ed Teall</i>	1161
Web Services for Learning in Educational Settings / <i>Bent B. Andreson</i>	1166
Web Site Portals in Local Authorities / <i>Robert Laurini</i>	1169
Web Usability for Not-for-Profit Organisations / <i>Hokyoung Ryu</i>	1177
Web Casts as Informal E-Learning for Scientific Centers / <i>Roxane Bernier</i>	1184
What is a Portal? / <i>Antti Ainamo and Christian Marxt</i>	1194
Widgets as Personalised Mini-Portals / <i>Con Nikakis</i>	1200
Wireless Local Communities in Mobile Commerce / <i>Jun Sun</i>	1204
WSRP Relationship to UDDI / <i>Jana Polgar and Tony Polgar</i>	1210
WSRP Specification and Alignment / <i>Jana Polgar and Tony Polgar</i>	1217