## Boualem Benatallah, Fieee

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6609041/publications.pdf

Version: 2024-02-01

196 papers 6,833 citations

35 h-index 67 g-index

215 all docs

215 docs citations

times ranked

215

4349 citing authors

#	Article	IF	CITATIONS
1	BP-SPARQL: A Query Language for Summarizing and Analyzing Big Process Data. , 2022, , 21-48.		4
2	Context Knowledge-Aware Recognition of Composite Intents in Task-Oriented Human-Bot Conversations. Lecture Notes in Computer Science, 2022, , 237-252.	1.0	2
3	Mashup Recommendation by Regularizing Matrix Factorization with API Co-Invocations. IEEE Transactions on Services Computing, 2021, 14, 502-515.	3.2	64
4	Chatbot Integration in Few Patterns. IEEE Internet Computing, 2021, 25, 52-59.	3.2	16
5	Cognitive Augmentation in Processes. Lecture Notes in Computer Science, 2021, , 123-137.	1.0	6
6	On the Impact of Predicate Complexity in Crowdsourced Classification Tasks. , 2021, , .		1
7	An internet of things service roadmap. Communications of the ACM, 2021, 64, 86-95.	3.3	22
8	On the State of Reporting in Crowdsourcing Experiments and a Checklist to Aid Current Practices. Proceedings of the ACM on Human-Computer Interaction, 2021, 5, 1-34.	2.5	10
9	Gradient Boosted Neural Decision Forest. IEEE Transactions on Services Computing, 2021, , 1-1.	3.2	3
10	Software expert discovery via knowledge domain embeddings in a collaborative network. Pattern Recognition Letters, 2020, 130, 46-53.	2.6	5
11	Rating prediction via generative convolutional neural networks based regression. Pattern Recognition Letters, 2020, 132, 12-20.	2.6	14
12	Opinion fraud detection via neural autoencoder decision forest. Pattern Recognition Letters, 2020, 132, 21-29.	2.6	37
13	Toward higher-level abstractions based on state machine for cloud resources elasticity. Information Systems, 2020, 90, 101450.	2.4	5
14	Feature-Based and Adaptive Rule Adaptation in Dynamic Environments. Data Science and Engineering, 2020, 5, 207-223.	4.6	2
15	Learning Word Representation for the Cyber Security Vulnerability Domain. , 2020, , .		7
16	A Meta Model for Mining Processes from Email Data. , 2020, , .		1
17	Self-adapting cloud services orchestration for fulfilling intensive sensory data-driven IoT workflows. Future Generation Computer Systems, 2020, 108, 583-597.	4.9	29
18	User Utterance Acquisition for Training Task-Oriented Bots: A Review of Challenges, Techniques and Opportunities. IEEE Internet Computing, 2020, 24, 30-38.	3.2	5

#	Article	IF	CITATIONS
19	Dynamic event type recognition and tagging for data-driven insights in law-enforcement. Computing (Vienna/New York), 2020, 102, 1627-1651.	3.2	2
20	State Machine Based Human-Bot Conversation Model and Services. Lecture Notes in Computer Science, 2020, , 199-214.	1.0	9
21	Discovering Activities from Emails Based on Pattern Discovery Approach. Lecture Notes in Business Information Processing, 2020, , 88-104.	0.8	6
22	Intelligent Knowledge Lakes: The Age of Artificial Intelligence and Big Data. Communications in Computer and Information Science, 2020, , 24-34.	0.4	17
23	iStory: Intelligent Storytelling with Social Data. , 2020, , .		13
24	DREC., 2020,,.		5
25	Dynamic word recommendation to obtain diverse crowdsourced paraphrases of user utterances. , 2020, , .		8
26	API Topics Issues in Stack Overflow Q&As Posts: An Empirical Study. , 2020, , .		1
27	API Topic Issues Indexing, Exploration and Discovery for API Community Knowledge. , 2020, , .		O
28	Challenges and strategies for running controlled crowdsourcing experiments. , 2020, , .		0
29	Quality Control in Crowdsourcing. ACM Computing Surveys, 2019, 51, 1-40.	16.1	200
30	Adversarial Collaborative Neural Network for Robust Recommendation., 2019,,.		43
31	Adversarial Collaborative Auto-encoder for Top-N Recommendation. , 2019, , .		16
32	Source-Aware Crisis-Relevant Tweet Identification and Key Information Summarization. ACM Transactions on Internet Technology, 2019, 19, 1-20.	3.0	6
33	Model-Driven Orchestration for Cloud Resources. , 2019, , .		8
34	Expert2Vec: Experts Representation in Community Question Answering for Question Routing. Lecture Notes in Computer Science, 2019, , 213-229.	1.0	13
35	Security Vulnerability Information Service with Natural Language Query Support. Lecture Notes in Computer Science, 2019, , 497-512.	1.0	4
36	iSheets: A Spreadsheet-Based Machine Learning Development Platform for Data-Driven Process Analytics. Lecture Notes in Computer Science, 2019, , 453-457.	1.0	10

#	Article	IF	Citations
37	iCOP: IoT-Enabled Policing Processes. Lecture Notes in Computer Science, 2019, , 447-452.	1.0	12
38	Similarity-Aware Deep Attentive Model for Clickbait Detection. Lecture Notes in Computer Science, 2019, , 56-69.	1.0	15
39	Crowdsourced dataset to study the generation and impact of text highlighting in classification tasks. BMC Research Notes, 2019, 12, 820.	0.6	6
40	Dual-stream Self-Attentive Random Forest for False Information Detection. , 2019, , .		5
41	DataSynapse: A Social Data Curation Foundry. Distributed and Parallel Databases, 2019, 37, 351-384.	1.0	33
42	Bots Acting Like Humans: Understanding and Preventing Harm. IEEE Internet Computing, 2019, 23, 40-49.	3.2	22
43	Crowdsourcing planar facility location allocation problems. Computing (Vienna/New York), 2019, 101, 237-261.	3.2	8
44	On semantic detection of cloud API (anti)patterns. Information and Software Technology, 2019, 107, 65-82.	3.0	14
45	Adaptive Rule Adaptation in Unstructured and Dynamic Environments. Lecture Notes in Computer Science, 2019, , 326-340.	1.0	2
46	DARec: Deep Domain Adaptation for Cross-Domain Recommendation via Transferring Rating Patterns. , 2019, , .		79
47	Genome of Human-Enabled Big Data Analytics. Communications in Computer and Information Science, 2019, , 71-83.	0.4	O
48	Towards Swarm Intelligence Architectural Patterns. , 2019, , .		0
49	A Taxonomy and Survey of Cloud Resource Orchestration Techniques. ACM Computing Surveys, 2018, 50, 1-41.	16.1	76
50	WITS: an IoT-endowed computational framework for activity recognition in personalized smart homes. Computing (Vienna/New York), 2018, 100, 369-385.	3.2	49
51	ProcessAtlas: A scalable and extensible platform for business process analytics. Software - Practice and Experience, 2018, 48, 842-866.	2.5	23
52	Crowd-Machine Collaboration for Item Screening. , 2018, , .		0
53	Combining Crowd and Machines for Multi-predicate Item Screening. Proceedings of the ACM on Human-Computer Interaction, 2018, 2, 1-18.	2.5	13
54	Industry 4.0, How to Integrate Legacy Devices: A Cloud IoT Approach., 2018,,.		15

#	Article	IF	CITATIONS
55	Panel on Cognitive Service Engineering. , 2018, , .		1
56	Business Process Analytics and Big Data Systems: A Roadmap to Bridge the Gap. IEEE Access, 2018, 6, 77308-77320.	2.6	25
57	Expert Recommendation via Tensor Factorization with Regularizing Hierarchical Topical Relationships. Lecture Notes in Computer Science, 2018, , 373-387.	1.0	6
58	DUAL: A Deep Unified Attention Model with Latent Relation Representations for Fake News Detection. Lecture Notes in Computer Science, 2018, , 199-209.	1.0	19
59	iProcess: Enabling IoT Platforms in Data-Driven Knowledge-Intensive Processes. Lecture Notes in Business Information Processing, 2018, , 108-126.	0.8	21
60	Fuzzy Integral Optimization with Deep Q-Network for EEG-Based Intention Recognition. Lecture Notes in Computer Science, 2018, , 156-168.	1.0	7
61	Crowd-based Multi-Predicate Screening of Papers in Literature Reviews. , 2018, , .		9
62	CrowdCorrect: A Curation Pipeline for Social Data Cleansing and Curation. Lecture Notes in Business Information Processing, 2018, , 24-38.	0.8	14
63	A Survey on Expert Recommendation in Community Question Answering. Journal of Computer Science and Technology, 2018, 33, 625-653.	0.9	59
64	A Multi-Dimensional Trust Model for Processing Big Data Over Competing Clouds. IEEE Access, 2018, 6, 39989-40007.	2.6	9
65	Model-Driven Elasticity for Cloud Resources. Lecture Notes in Computer Science, 2018, , 187-202.	1.0	4
66	CoreKG. Proceedings of the VLDB Endowment, 2018, 11, 1942-1945.	2.1	51
67	A systematic review and comparative analysis of cross-document coreference resolution methods and tools. Computing (Vienna/New York), 2017, 99, 313-349.	3.2	32
68	Architecting cloudâ€enabled systems: a systematic survey of challenges and solutions. Software - Practice and Experience, 2017, 47, 599-644.	2.5	18
69	A declarative language to support dynamic evolution of web service business protocols. Service Oriented Computing and Applications, 2017, 11, 163-181.	1.3	3
70	Web Service Implementation and Composition Techniques. , 2017, , .		15
71	A service computing manifesto. Communications of the ACM, 2017, 60, 64-72.	3.3	180
72	On Automating Basic Data Curation Tasks. , 2017, , .		24

#	Article	IF	Citations
73	Building Entity Graphs for the Web of Things Management. , 2017, , 275-303.		O
74	CoreDB. , 2017, , .		48
75	Experts community memory for entity similarity functions recommendation. Information Sciences, 2017, 379, 338-355.	4.0	2
76	Programming bots by synthesizing natural language expressions into API invocations. , 2017, , .		16
77	Expert as a Service: Software Expert Recommendation via Knowledge Domain Embeddings in Stack Overflow. , 2017, , .		11
78	Calling for Response: Automatically Distinguishing Situation-Aware Tweets During Crises. Lecture Notes in Computer Science, 2017, , 195-208.	1.0	9
79	Investigating the Expertise Indicators of Vulnerability Discovery Professionals. Advances in Science, Technology and Engineering Systems, 2017, 2, 1784-1798.	0.4	1
80	Software Security Professionals: Expertise Indicators. , 2016, , .		4
81	A Resource Provisioning Strategy for Elastic Analytical Workflows in the Cloud. , 2016, , .		1
82	Process Analytics. , 2016, , .		30
83	Process Matching Techniques. , 2016, , 61-90.		1
84	Dimensions for Evaluating Cloud Resource Orchestration Frameworks. Computer, 2016, 49, 24-33.	1.2	11
85	Business Process Paradigms. , 2016, , 19-60.		4
86	Business Process Data Analysis. , 2016, , 107-134.		1
87	Tools, Use Cases, and Discussions. , 2016, , 135-150.		O
88	A Value-Added Approach to Design BI Applications. Lecture Notes in Computer Science, 2016, , 361-375.	1.0	9
89	Empowering Truth Discovery with Multi-Truth Prediction. , 2016, , .		8
90	Truth Discovery via Exploiting Implications from Multi-Source Data. , 2016, , .		17

#	Article	lF	CITATIONS
91	A Model-Driven Framework for Interoperable Cloud Resources Management. Lecture Notes in Computer Science, 2016, , 186-201.	1.0	8
92	CloudMap: A Visual Notation for Representing and Managing Cloud Resources. Lecture Notes in Computer Science, 2016, , 427-443.	1.0	6
93	Scalable graph-based OLAP analytics over process execution data. Distributed and Parallel Databases, 2016, 34, 379-423.	1.0	48
94	Web Service Composition. ACM Computing Surveys, 2016, 48, 1-41.	16.1	223
95	Unified Representation and Reuse of Federated Cloud Resources Configuration Knowledge. , 2015, , .		2
96	Open source as an innovative approach in computer science education A systematic review of advantages and challenges. , 2015, , .		3
97	Event Correlation Analytics: Scaling Process Mining Using Mapreduce-Aware Event Correlation Discovery Techniques. IEEE Transactions on Services Computing, 2015, 8, 847-860.	3.2	25
98	Cloud Resource Orchestration Programming: Overview, Issues, and Directions. IEEE Internet Computing, 2015, 19, 46-56.	3.2	78
99	Robust evaluation of products and reviewers in social rating systems. World Wide Web, 2015, 18, 73-109.	2.7	26
100	Scalable SaaS-Based Process Customization with CaseWalls. Lecture Notes in Computer Science, 2015, , 218-233.	1.0	6
101	Harnessing Implicit Teamwork Knowledge to Improve Quality in Crowdsourcing Processes. , 2014, , .		7
102	Special Issue on: Model and Data Engineering. Journal on Data Semantics, 2014, 3, 141-142.	2.0	0
103	Representation and querying of unfair evaluations in social rating systems. Computers and Security, 2014, 41, 68-88.	4.0	14
104	ProcessBase: A Hybrid Process Management Platform. Lecture Notes in Computer Science, 2014, , 16-31.	1.0	10
105	Decidability and Complexity of Simulation Preorder for Data-Centric Web Services. Lecture Notes in Computer Science, 2014, , 535-542.	1.0	3
106	Data Transformation Knowledge Reuse inÂSpreadsheet-Based Mashup DevelopmentÂPlatform. , 2014, , 635-656.		2
107	ICSOC PhD Symposium 2013. Lecture Notes in Computer Science, 2014, , 527-527.	1.0	0
108	Semantics-Based Approach for Dynamic Evolution of Trust Negotiation Protocols in Cloud Collaboration. Lecture Notes in Computer Science, 2014, , 518-526.	1.0	0

#	Article	IF	Citations
109	Enabling the Analysis of Cross-Cutting Aspects in Ad-Hoc Processes. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2013, , 51-67.	0.2	22
110	Context-Aware UI Component Reuse. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2013, , 68-83.	0.2	1
111	Collusion Detection in Online Rating Systems. Lecture Notes in Computer Science, 2013, , 196-207.	1.0	42
112	Form-Based Web Service Composition for Domain Experts. ACM Transactions on the Web, 2013, 8, 1-40.	2.0	17
113	Quality Control in Crowdsourcing Systems: Issues and Directions. IEEE Internet Computing, 2013, 17, 76-81.	3.2	298
114	ServiceBase: A Programming Knowledge-Base for Service Oriented Development. Lecture Notes in Computer Science, 2013, , 123-138.	1.0	8
115	A Toolkit for Simplified Web-Services Programming. Lecture Notes in Computer Science, 2013, , 515-518.	1.0	5
116	Entity-Centric Search for Enterprise Services. Lecture Notes in Computer Science, 2013, , 404-412.	1.0	0
117	Service graph base: A unified graph-based platform for representing and manipulating service artifacts. , 2012, , .		3
118	Reputation Management in Crowdsourcing Systems., 2012,,.		45
119	Using Mapreduce to Scale Events Correlation Discovery for Business Processes Mining. Lecture Notes in Computer Science, 2012, , 279-284.	1.0	17
120	A Cloud Resource Orchestration Framework for Simplifying the Management of Web Applications. Lecture Notes in Computer Science, 2012, , 248-249.	1.0	2
121	Special section: software architectures and application development environments for Cloud computing. Software - Practice and Experience, 2012, 42, 391-394.	2.5	6
122	A Framework and a Language for On-Line Analytical Processing on Graphs. Lecture Notes in Computer Science, 2012, , 213-227.	1.0	24
123	Integrating Feature Analysis and Background Knowledge to Recommend Similarity Functions. Lecture Notes in Computer Science, 2012, , 673-680.	1.0	1
124	Extending Enterprise Service Design Knowledge Using Clustering. Lecture Notes in Computer Science, 2012, , 142-157.	1.0	1
125	Spreadsheet-based complex data transformation. , 2011, , .		25
126	From Business Processes to Process Spaces. IEEE Internet Computing, 2011, 15, 22-30.	3.2	5

#	Article	IF	Citations
127	Event correlation for process discovery from web service interaction logs. VLDB Journal, 2011, 20, 417-444.	2.7	116
128	A taxonomy and survey on autonomic management of applications in grid computing environments. Concurrency Computation Practice and Experience, 2011, 23, 1990-2019.	1.4	36
129	Embedding MindMap as a service for user-driven composition of web applications. , 2011, , .		O
130	Using Graph Aggregation for Service Interaction Message Correlation. Lecture Notes in Computer Science, 2011, , 642-656.	1.0	2
131	A Query Language for Analyzing Business Processes Execution. Lecture Notes in Computer Science, 2011, , 281-297.	1.0	51
132	Forms-based Service Composition. Lecture Notes in Computer Science, 2011, , 627-635.	1.0	1
133	Similarity Function Recommender Service Using Incremental User Knowledge Acquisition. Lecture Notes in Computer Science, 2011, , 219-234.	1.0	2
134	Service Learning and Teaching Foundry: A Virtual SOA/BPM Learning and Teaching Community. Lecture Notes in Business Information Processing, 2011, , 790-805.	0.8	1
135	FormSys. , 2010, , .		7
136	Analysis and applications of timed service protocols. ACM Transactions on Software Engineering and Methodology, 2010, 19, 1-38.	4.8	24
137	Protocol-aware matching of web service interfaces for adapter development. , 2010, , .		48
138	Message Correlation and Web Service Protocol Mining from Inaccurate Logs. , 2010, , .		9
139	Liquid Course Artifacts Software Platform. Lecture Notes in Computer Science, 2010, , 719-721.	1.0	2
140	Managing Long-Tail Processes Using FormSys. Lecture Notes in Computer Science, 2010, , 702-703.	1.0	2
141	Time sequence summarization to scale up chronology-dependent applications. , 2009, , .		10
142	Modeling Trust Negotiation for Web Services. Computer, 2009, 42, 54-61.	1.2	24
143	Mismatch Patterns and Adaptation Aspects: A Foundation for Rapid Development of Web Service Adapters. IEEE Transactions on Services Computing, 2009, 2, 94-107.	3.2	70
144	WISE 2007 Extended Best Papers. World Wide Web, 2009, 12, 1-2.	2.7	0

#	Article	IF	CITATIONS
145	Hosted Universal Composition: Models, Languages and Infrastructure in mashArt. Lecture Notes in Computer Science, 2009, , 428-443.	1.0	84
146	An Incremental Knowledge Acquisition Method for Improving Duplicate Invoices Detection. Proceedings - International Conference on Data Engineering, 2009, , .	0.0	12
147	Configurable Composition and Adaptive Provisioning of Web Services. IEEE Transactions on Services Computing, 2009, 2, 34-49.	3.2	74
148	Data integration in mashups. SIGMOD Record, 2009, 38, 59-66.	0.7	117
149	Rapid development of spreadsheet-based web mashups. , 2009, , .		39
150	Towards a Spreadsheet-Based Service Composition Framework. Lecture Notes in Computer Science, 2009, , 369-373.	1.0	0
151	Self-adapting recovery nets for policy-driven exception handling in business processes. Distributed and Parallel Databases, 2008, 23, 1-44.	1.0	40
152	Dynamic composition and optimization of Web services. Distributed and Parallel Databases, 2008, 24, 45-72.	1.0	81
153	Understanding Mashup Development. IEEE Internet Computing, 2008, 12, 44-52.	3.2	353
154	Deriving Protocol Models from Imperfect Service Conversation Logs. IEEE Transactions on Knowledge and Data Engineering, 2008, 20, 1683-1698.	4.0	32
155	User-centric services provisioning in wireless environments. Communications of the ACM, 2008, 51, 130-135.	3.3	18
156	Data Messaging Based Approach for Web Service Composition. , 2008, , .		1
157	Service Oriented Architecture: Overview and Directions. Lecture Notes in Computer Science, 2008, , 116-130.	1.0	15
158	Supporting the dynamic evolution of Web service protocols in service-oriented architectures. ACM Transactions on the Web, 2008, 2, 1-46.	2.0	80
159	Process spaceship. Proceedings of the VLDB Endowment, 2008, 1, 1412-1415.	2.1	5
160	Conceptual Modeling of Privacy-Aware Web Service Protocols. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2007, , 233-248.	0.2	14
161	Managing Impacts of Security Protocol Changes in Service-Oriented Applications. Proceedings - International Conference on Software Engineering, 2007, , .	0.0	21
162	Understanding UI Integration: A Survey of Problems, Technologies, and Opportunities. IEEE Internet Computing, 2007, 11, 59-66.	3.2	127

#	Article	IF	CITATIONS
163	Semi-automated adaptation of service interactions., 2007,,.		159
164	A framework for rapid integration of presentation components., 2007,,.		111
165	Mixup: A Development and Runtime Environment for Integration at the Presentation Layer. , 2007, , 479-484.		11
166	Fine-Grained Compatibility and Replaceability Analysis of Timed Web Service Protocols. Lecture Notes in Computer Science, 2007, , 599-614.	1.0	14
167	Service Mosaic: A Model-Driven Framework for Web Services Life-Cycle Management. IEEE Internet Computing, 2006, 10, 55-63.	3.2	34
168	Fast and Scalable Access to Advance Resource Reservation Data in Future Cellular Networks. , 2006, , .		1
169	Representing, analysing and managing Web service protocols. Data and Knowledge Engineering, 2006, 58, 327-357.	2.1	146
170	Building and querying e-catalog networks using P2P and data summarisation techniques. Journal of Intelligent Information Systems, 2006, 26, 7-24.	2.8	4
171	Towards semantic-driven, flexible and scalable framework for peering and querying e-catalog communities. Information Systems, 2006, 31, 266-294.	2.4	20
172	Web Service Computing: Overview and Directions. , 2006, , 553-574.		3
173	An Aspect-Oriented Framework for Service Adaptation. Lecture Notes in Computer Science, 2006, , 15-26.	1.0	42
174	Facilitating the Rapid Development and Scalable Orchestration of Composite Web Services. Distributed and Parallel Databases, 2005, 17, 5-37.	1.0	106
175	On automating Web services discovery. VLDB Journal, 2005, 14, 84-96.	2.7	183
176	Systematic Approaches for Designing B2B Applications. International Journal of Electronic Commerce, 2005, 9, 41-70.	1.4	15
177	Developing Adapters for Web Services Integration. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2005, , 415-429.	0.2	146
178	Trust-serv. , 2004, , .		32
179	ABSTRACTING AND ENFORCING WEB SERVICE PROTOCOLS. International Journal of Cooperative Information Systems, 2004, 13, 413-440.	0.6	13
180	WebBIS: AN INFRASTRUCTURE FOR AGILE INTEGRATION OF WEB SERVICES. International Journal of Cooperative Information Systems, 2004, 13, 121-158.	0.6	14

#	Article	IF	Citations
181	A configurable matchmaking framework for electronic marketplaces. Electronic Commerce Research and Applications, 2004, 3, 95-106.	2.5	16
182	A three-level specification approach for an environment of software agents and Web services. Electronic Commerce Research and Applications, 2004, 3, 214-231.	2.5	6
183	On Composite Web Services Provisioning in an Environment of Fixed and Mobile Computing Resources. Information Technology and Management, 2004, 5, 251-270.	1.4	40
184	A trust negotiation system for digital library Web services. International Journal on Digital Libraries, 2004, 4, 185-207.	1.1	10
185	Model-Driven Web Service Development. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2004, , 290-306.	0.2	43
186	WS-CatalogNet. , 2004, , 1325-1328.		4
187	Trust-Serv. , 2004, , 1329-1332.		3
188	Quality driven web services composition. , 2003, , .		811
189	The Self-Serv environment for Web services composition. IEEE Internet Computing, 2003, 7, 40-48.	3.2	415
190	Model-driven trust negotiation for web services. IEEE Internet Computing, 2003, 7, 45-52.	3.2	60
191	Flexible Composition of Enterprise Web Services. Electronic Markets, 2003, 13, 141-152.	4.4	57
192	Caching Dynamic Data for E-Business Applications. , 2003, , 459-466.		3
193	Adaptive Web-Based Database Communities. , 2003, , 277-298.		1
194	An integrated service architecture for managing capital market systems. IEEE Network, 2002, 16, 15-19.	4.9	23
195	Dynamic Restructuring of E-Catalog Communities Based on User Interaction Patterns. World Wide Web, 2002, 5, 325-366.	2.7	14
196	Interconnecting Heterogeneous Information Systems. , 1998, , .		39