

Index

A

access control mechanism 254
actions 78
activities 78
actual services 32
adaptive resonance theory 287
adaptive retrieval method 205
advanced peer-to-peer networking (APPN)
185
advanced planning and scheduling (APS)
247
AF 163
agent technologies 159
agents 12
algorithms 200
analysis 8
ANN 96
APPN 185
APS 247
argument 177
argument-theoretic semantics 164
argumentation framework 164
argumentation ontology 165
ARRANGER 206
artificial intelligence 15, 75
artificial neural network (ANN) 96

Askjeeves 204
ASR 231
atomic components 9
atomic processes 81
attributes 95
auction 159
auditors 247
authentication process 10
authorization 254
average weight 217
axiom 9, 95

B

basic reactive plan 79
Boolean expression 79
broadband intelligent networks 185
business process 183
business process management system 184
buyer agent 160

C

C4.5 96
candidate hyperlinks 216
cardinality 33
CART 96
case-based reasoning (CBR) 96

- causal relationships 10
- CBR 96
- CFAR 247
- checkpoints 94
- Chinese wall model 248
- choreography 67
- chromosome 222
- client tier 315
- client-server 184
- Clustering techniques 99
- cognitive psychology 15
- COI 253
- collaborative commerce 246
- collaborative forecasting and replenishment (CFAR) 247
- collaborative network 246
- collaborative planning, forecasting, and replenish 247
- common business library 311
- composed relation generation 102
- composite processes 81
- composition 146
- configure agent 185
- conflict-of-interest (COI) 253
- continuous replenishment program (CRP) 247
- CopperCore engine 144
- CORBA 34
- corpus-based Web mining 204
- CPFR 247
- CRM 82
- crossover 225
- CRP 247
- customer relations management (CRM) 82
- customer satisfaction 94
- customer service database 94

D

- DAC 249, 253
- DAML 46, 75, 161
- DARPA 161
- DARPA agent markup language 45, 75
- data encryption 249
- data layer 315
- data model 117
- data schema 12

- database administrators 258
- database management system (DBMS) 11
- database of interaction proteins (DIP) 281
- DBMS 11
- declarative knowledge 13
- deductive reasoning 9
- deep blue 16
- definition framework (RDF) 18
- dialectical domain ontology 165
- digital processes 32
- digital repositories interoperability (DRI) 144
- DIP 281
- disambiguation 8
- DiscoTEX 204
- discretionary access control models (DAC) 249
- discriminating words 287
- DNA 281
- DNS 4
- Dreamweaver 190
- DRI 144
- dynamically terminated configuration 231

E

- e-learning 142
- e-marketplace 160
- effect 48
- ellipse 119
- enterprise JavaBeans 80
- enterprise ontology 8, 313
- entities 95
- Environmental Protection Agency (EPA) 247
- ERP 247
- EST 281
- events 78
- exact 162
- explicit knowledge 7
- expressed sequence tag (EST) 281
- extended markup language (XML) 17, 77
- external auditors 247
- Extranets 181

F

factual statements 10
 fail 162
 fault diagnosis 96
 FDIC 247
 Federal Depository Insurance Commission (FDIC) 247
 first-order logic 311
 FOAF 117
 formal language 7, 8
 formal logic 14
 friend of a friend (FOAF) 117
 functional properties 48
 fuzzy logic models 200

G

GA 201
 GAAP 247
 GAAS 250
 gene 222
 generally accepted accounting principles (GAAP) 247
 generally accepted auditing standards (GAAS) 250
 genetic algorithm (GA) 201
 GeniMiner 206
 global best-fit solution 226
 Google 3
 grammar rules 9
 grounding 76

H

HLP 199, 201
 HTML 2, 181, 189
 HTTP 2, 34, 77
 HuddleSearch 203
 human agents 32
 HVV method 200
 hyperlink exploration 203
 hyperlink prediction 201
 hyperlinks 200
 hypertext markup language 181

I

IE 201
 IEEE 143
 implementation manager 185
 incorporation 8
 inductive reasoning 9
 information representation 5
 information retrieval 200
 information risks 248
 input 48
 Inquirus 2 203
 instances generation 102
 intelligent software agents (ISAs) 315
 internal auditors 247
 Internet queries 272
 intranets 181
 IOPEs 48
 IR 200, 269
 ISAs 315

J

J2EE 80
 Java Message Service (JMS) 77
 Java RMI 34
 JavaServer Pages 190
 Jbuilder 192
 Jena 125
 JMS 77, 80
 JSP 190

K

k-nearest neighbor (kNN) 111
 KDD 204
 kernel function 286
 key-phrases 204
 keyword spamming 200
 KM 147
 kNN 111
 knowledge base 9
 knowledge discovery 98
 knowledge management 23
 Kohonen Self-Organizing Map (KSOM)
 100
 KSOM 100

L

LD 144
 learning design (LD) 144
 learning management systems (LMS) 144
 learning need 146
 learning object 142
 learning object repository 142
 learning vector quantization 96
 LMS 143
 loads 160
 LVQ3 96

M

MAC 249
 machine service ontology 98
 mandatory access control models (MAC) 249
 Markov chains 203
 matching degree 287
 matchmaking process 161
 mean reciprocal rank (MRR) 234
 measurement ontology 313
 mediators 47
 medical Web 268
 MEDLINE 269, 281
 memory 9
 MeSH 288
 message exchange channel 2
 message understanding conferences (MUCs) 204
 metadata 21
 metasearch 200
 Model and Syntax Specification 184
 MRR 234
 MUCs 204
 multi-agent argumentation system 174
 multi-site analysis 203
 multiple string alignments 204
 mutation 225

N

NASDAQ 204
 National Library of Medicine (NLM) 269
 navigation 200
 NECT 204

NECT metasearch engine 202
 NLM 268, 269
 node 183
 non-functional properties 55

O

OIL 161
 ontological categories 7
 ontology 95, 142, 190, 311
 ontology generation 98
 ontology processing tier 315
 ontology representations 314
 open source 126
 Oracle software 246
 orchestration 67
 output 48
 OWL 18, 75, 142, 160, 161
 OWL-S 32

P

P2P 183
 P2P architecture 183
 page clipping synthesis (PCS) 201
 page rank 200
 page-to-hyperlinks weight ratio 219
 paid placement 181
 PAT-trees 204
 pattern discovery techniques 204
 pattern matching algorithms 204
 pay-per-click search engine 234
 PCS 199, 201
 PDM 3, 246
 peer to peer 183
 penalty cost 215
 perception 8
 php 213
 plugin 162
 point-of-sales (POS) 247
 population 222
 POS 247
 precondition 48
 predefined configurations 231
 privilege 254
 probability models 200
 procedural knowledge 13
 process monitor 185

process planner 185
 product data definition (PDM) 246
 product data management (PDM) 3
 proofing 10
 propositions 12
 ProQuest 3
 Protégé-2000 21
 protein-to-protein interaction 287
 prototype system 317
 PubMed 282

Q

QA 204
 QASM 205
 QM 318
 qualification value 215
 qualified pages 214
 quality management (QM) 318

R

random number generators 262
 RBAC 250
 RDF 17, 18, 75, 116, 117, 147, 161, 184
 RDF document 126
 RDF graph 119
 RDF Site Summary (RSS) 117
 RDFS 18
 registry 60
 relationships 95
 resource 119
 resource description framework (RDF)
 75, 117, 190
 resource manager 185
 RNA 281
 role-based access model 253
 RossetaNet 15
 RPC 35
 RSS 117
 rules engine 81
 runtime agent 185

S

schema 12
 schematic relation generation 102
 SCI 200

science citation index 200
 SCORM 144
 search engine 200
 search engine vector voting 200
 security 249
 SEFs 204
 selection 146
 self-organizing maps 287
 seller agent 160
 semantic interpretation 9
 semantic knowledge 32
 semantic network 14
 Semantic Web 5, 32, 95, 142, 160, 184,
 268
 Semantic Web application pyramid 311
 Semantic Web language 17
 Semantic Web rule language 312
 Semantic Web service usage process 146
 Semantic Web services 32, 74, 95
 semantics 6
 semantics flow builder (SFB) 185
 service knowledge database 101
 service oriented analysis and design
 (SOAD) 81
 service oriented architecture (SOA) 80
 service profile 56, 162
 service specifications 81
 SFB 185
 sharable content objects 144
 SimNet 286
 simple object access protocol (SOAP)
 23, 34
 simulations 231
 SMI 22
 SMTP 34
 SOA 80
 SOAD 81
 SOAP 23, 34, 77
 software agent 5, 185
 source documents 262
 specialization relation 33
 SQL 11, 317
 Stanford Medical Informatics (SMI) 22
 statechart diagram 78
 stateless services 45
 states 78

static information 32
 statistical models 205
 stemming algorithm 285
 strategy trees 168
 strong agents 185
 structural query language (SQL) 11
 structured design methodology 311
 subsumes 162
 superclass 33
 supervise agent 185
 supply chain management 246
 SVV 199, 200
 SVV method 200
 SWAP 311
 SWRL 88
 SWRL (Semantic Web rule language) 312

T

The Pew Internet Project 268
 TOVE ontological engineering methodology 311
 transactions 78
 trojan horses 253

U

UBF 209
 UDDI 23, 34, 97, 186
 UML 78
 unified modeling language (UML) 78
 universal description, discovery, and integration 23, 97
 universal resource identifier 97
 URI 2, 97, 117
 user behavior function (UBF) 234

V

vector space models 200
 vendor-managed inventories (VMI) 246
 VerticalNet 311
 VMI 246

W

W3C 18, 161
 weak agents 185
 Web agents 75

Web content 12
 Web ontology language (OWL) 18, 75
 Web pages 200
 Web search engine 267
 Web search systems 206
 Web service 142
 Web service composition 64
 Web service modeling ontology 142
 Web service standards 69
 Web services 5, 32, 145, 248
 Web services description language (WSDL) 35
 Web services description language (WSDL) 23, 76
 Web services description services (WSDS) 97
 Web-based applications 95
 Web-ontology working group 75
 Webnaut metasearch system 202
 WebSphere 77
 WebSphere Studio Application Developer 81
 weight of a hyperlink 216
 weights 210
 WFMS 184
 WordNet 101, 285
 workflow 77, 181
 workflow collaboration 246
 workflow management coalition 77
 workflow management system (WFMS) 184
 World Wide Web 2
 World Wide Web consortium 75
 WSDL 23, 34, 35, 76
 WSDS 97
 WSMF 145
 WSML 145
 WSMO 32, 142
 WSMO mediators 64
 WSMO orchestration 65
 WSMX 145

X

XML 17, 34, 77, 117, 161, 181, 311