

Index

A

accuracy error metrics 33
 ACQUA evaluation 287
 ACQUA project 281
 activity theory 167
 actor network theory (ANT) 168
 actor network theory in IR activity 167
 adaptation issue 253
 adaptation process 262
 adaptive information retrieval 88–118
 adaptive user profiles 65–87
 add-A-tag algorithm 72
 application fo user profiles 80
 association rules 286

B

betweenness centrality 52

C

capturing user intent 88–118
 case-based recommendation systems 206
 clustering tag graphs 50
 cluster labeling 54
 co-occurrence approach 70

COBRAS's architecture 187
 COBRAS's task description 188
 COBRAS, recommender system 184–202
 COBRAS, system overview 188
 cold-start problem 34
 collaborative filtering 2, 27, 185
 collaborative filtering (CF) algorithms 130
 collaborative filtering, computing recommendations 23–42
 collaborative recommendations 127
 collaborative recommendation systems 205
 collaborative relevance feedback 146
 collaborative tagging systems 67
 communal tag relationships 43–64
 community computation 195
 complementary relevance feedback technique 161
 computing recommendations with collaborative filtering 23–42
 ContactRank 174
 content-based filtering 5, 185
 content-based filters 27
 content-based recommendation 127
 content-based recommendation of documents 133
 content-based recommendation systems 205
 context-aware querying process 325
 context-aware system navigation 327

context network 96
 contextual matching algorithm (CMA) 264
 contextual user profile (CUP), definition 263
 controlled vocabularies 46

D

data-centric viewpoint 82
 demographic recommendations 127
 DemonD 165–183
 DemonD a social search engine 171
 distributed cognition theory 167
 domain ontologies for user modeling 120
 dynamic user profiles 67

E

e-learning recommender systems 119–139
 Edutella 297
 expert retrieval systems (ERS) 170
 explicit preference entry (EPE) interfaces 9

F

folksonomies, extracting latent structure 48
 Foxtrot 134
 Francesco, learning system administrator 302

G

general tags vs. clusters 53

H

hierarchy browsing 58
 hot topic detection 189
 hybrid filtering 7, 185
 hybrid methods 31
 hybrid music recommendation systems 206
 hybrid recommendation method, experimental evaluation 242
 hybrid Web recommendations 237
 HyCo 298

I

Ide dec-hi approach 104
 implicit user profiles 67
 implicit user profiles, creating 68
 information retrieval (IR) 89, 141
 information retrieval application, integrating IPC 102
 interest set 95
 IPC user model 95

K

knowledge-based recommendations 127

L

latent structure, types 50
 latent structure extraction from folksonomies 48

M

Magpie 298
 Marco, user seeking resources 301
 Markov decision process 225
 mel-frequency cepstral coefficients (MFCC) 207, 212
 memory-based collaborative filtering 28
 mobile users and collaboration 252
 model-based collaborative filtering 30
 modified query graph, construction 100
 multi-agent system (MAS) approach 255
 music recommendation 203–221
 music recommendation systems, user models 208

N

naive approach 69

O

ontology 304
 ontology-based recommender systems approaches 127
 ontology-based user competencies modeling 119–139
 ontology-enhanced search strategies 315
 ontology mapping 298

P

peer-to-peer (P2P) bibliographical reference recommender system 184
 peer ubiquitous multi-agent system (PUMAS) 256
 personal information management (PIM) systems 314
 personalized information retrieval in a Semantic learning environment 294–312
 personalized learning retrieval framework 299
 personalized recommendations, hybrid solution 129
 pitch content features (MPITCH) 212
 preference network 98
 profile-centric viewpoint 82
 profile algorithms, evaluation 73
 profile visualization 78

PUMAS framework 266

Q

q-learning problem 227

query formulation 316

R

recommendation accuracy (RA) 242

recommendation algorithms, evaluations 211

recommendation computation 189

recommendation quality (RQ) 242

recommender system, experiments 9

recommender system approaches 2

recommender system evaluation 8

recommender systems, problems and evaluations 32

recommender systems, state-of-the-art 1–22

recommender systems, user profiles 25

recommender systems, vulnerabilities 35

reinforcement learning 222, 225

reinforcement learning (RL), in recommender systems 226

retrieval of information in an adaptive Web site 278–293

reusable competency definitions (RCD) 122

rhythmic content features (BEAT) 212

S

“SemanticLIFE” 316

SCIR, measurement granularity 154

SCIR, sharing knowledge 145

SCIR simulations 153

scrutable user profiles 67

semantic-based 294

SemanticLIFE framework 317

semantic navigation, VQS 326

single display groupware (SDG) technology 144

situated action theory 167

situated cognition theory 167

smart space for learning 297

social search 169

social search engine evaluation 178

social search initiatives online 170

state-of-the-art recommender systems 1–22

synchronous co-located collaborative information retrieval 143

synchronous collaborative information retrieval (SCIR) 140–164

synchronous collaborative information retrieval environment 140–164

synchronous remote collaborative information retrieval 142

T

tagging 44

tagging systems, advantages 45

tagging systems, limitations 45

tag graph 58

tags, hierarchical clustering 51

tag similarity methods 49

term clustering 47

term frequency inverted document frequency (TFIDF) 92

Text REtrieval Conference (TREC) 152

TFIDF 104

thesauri 46

U

usage-based web page recommendation 227

user-related problems 34

user model complexity, analysis 103

user preferences model for mobile users 259

user profiles 66

user profiles, application 80

utility-based recommendations 127

V

virtual data component (VDC) 319

virtual data component, goals 320

virtual information collecting 320

virtual query language 322

virtual query system 318

virtual query system (VQS) 314

VQL query template (VQL-QT) 323

VQS, context-aware query formulation 323

VQS contextualization 334

VQS implementation 327

VQS main components 319

VQS plug-ins 329

VQS query map (VQS-QM) 325

VQS user context 324

W

Web content recommendation 222–249

Web personalization, ontology use 128

Web recommender systems 224

word sense disambiguation (WSD) 307