

Index

Symbols

3-D geo-entity model 196

A

abstraction hierarchy 220
 accessibility 115
 ActiveX 292
 agenda management 210, 226
 agent technology 342
 Agent UML 126
 agent unified modeling language 123
 agent-based solutions 122
 agent-oriented 123
 aggregating cardinal preference 171
 alternatives generation 210
 Amsterdam RealTime 110
 analytic communication 214
 analytic-deliberative 210, 220
 Apache 246
 Arc/View 197
 ArcGIS 300
 ArcIMS 292
 ArcPad 329
 ArcSDE 333
 Arcview extension 144

argumentation map 85
 argumentation model 88
 argumentative turn 347
 artificial intelligence (AI) 143, 170
 ASCII 293
 asynchronous 297
 Autodesk MapGuide 269
 autonomous behavior 143
 autonomous intelligent system 95

B

back office 297
 base map 269
 binary file 326
 Blackboard architecture 145
 Blue Marble Geographics 300
 Bluetooth 104, 330
 Borland JBuilder 300
 Bottom-Up GIS 48
 broadband 323

C

C# 320
 C++ 300
 cable-based asynchronous 326
 CARIS 300

cartographic 90, 107
 cause-effect model 136
 centralized architecture 289
 Chameleon 248
 Cheat Lake 45
 choice modeling 210, 227
 citizen access 67
 cognitive access 72
 collaboration 4, 176, 239, 258
 collaborative agent 128, 143
 collaborative community planning 264
 collaborative field data collection 70
 collaborative geographic information systems (CGIS) 1, 98, 319, 341, 346
 collaborative group 11, 122
 collaborative mapping 103
 collaborative spatial decision making (CSDM) 9, 91, 286, 319
 collaborative spatial decision support systems 285
 collaborative virtual geographic environment 187
 collective initiative research 111
 COM 300
 common object request broker architecture 320
 CommonGIS 242
 community data editor 269
 community GIS 239
 community integrated GIS 151
 community mapping 266
 community-based participatory planning 105
 competence 220
 computer-mediated communication 87
 computer-supported argument visualization 94
 computer-supported cooperative work 25, 187, 303, 319
 concerns-values 210
 conflict mediation techniques 70
 consensus-based location 114
 control programs 292
 conversation bar 226
 cooperation distinction 4
 cooperative 1, 304

copyright-free geographic data 106
 critical cartographies 79
 cross-walk information 227
 cultural values 210

D

data acquisition 68
 data collection 159
 data node 319
 data transmission 326
 database 221
 decision points 297
 decision situations 209
 decision support systems 135
 decision-modeling technology 210
 DeepMatrix 294
 deliberative democracy 213
 Delphi method 12, 129
 democratisation 104
 design goals 231
 digital divide 73
 digital government 210
 digital library 294
 digital map 11
 digital terrain model 36
 DirectX 293
 discussion forum 95
 distributed system architecture 193
 Dito 243
 domain 242

E

e-mail 295
 eclectic integration 3
 EduCal 250
 education planning 250
 electronic democracy 210
 electronic meeting system 303
 engine 299
 Enhanced 911 107
 enhanced adaptive structuration theory 27, 212
 epistemology 5
 ESRI ArcIMS 330
 ethnographic research 79
 extensible markup language 293

F

facilitated decision support 239
 field-based GIS 322
 file transmission protocol 288
 final appraisal score 157
 FreeWRL 293
 FTP 326
 function screen 226

G

game 220
 game theory 342, 344
 general linear model 160
 general mobile radio service 324
 genetic algorithms 170
 geo-computation 170
 geoargumentative relations 92
 geocollaboration 190
 geographic data model 194
 geographic information infrastructure 103
 geographic information science 28, 67,
 104, 238, 286
 geographic information-bearing object 89
 geographic markup language 291
 geographic reference objects 89
 geographic visualization 86
 geographical mediation project 304
 geographical reference 89
 geography 6
 geography markup language 109, 115, 242
 GeoLink 301
 GeoMedia WebMap 292
 geoprocessing software 135
 georeferenced multimedia 89
 geospatial data 221
 geospatial portal 210
 GeoTools GIS toolkit 301
 Geowiki 112
 getting started bar 226
 GIS 168, 290, 304
 GIScience 14
 GIServices 321
 GISystems 321
 global satellite imagery 111
 GPS 327

GPS simulator 333
 GPS drawing 112
 grassroots 244
 Grid 334
 group decision making 168, 210
 group decision support 296, 319
 group process 3
 GroupARC project 301
 GroupKit 299
 groupware 87, 286, 295

H

hidden patterns 170
 high-resolution orthophotographs 269
 HJW Geospatial Inc 303
 human-computer interaction 24, 28, 309
 human-computer-human interaction 222
 human-human communication 87
 hybrid architecture 290
 hyperlink 287
 hypermaps 89
 hypertext transmission protocol 288

I

IEEE 802.11b 329
 ill-defined components 170
 in situ agents 317
 information agents 143
 information and communication technology
 26
 information structures 210
 information system design 225
 information-exchange view 175
 integrated system design 264
 intelligent software agents 143
 interface agents 143
 Intergraph's GeoMedia Suite 300
 Internet GIS 320
 Internet protocol 288
 Internet-based geographic information
 system 210, 244
 interoperability standards 95

J

J++ 300

J/GIS 300
 Java 242, 320
 Java Applet 242, 292, 304
 Java shared data toolkit 299
 Java3D 293
 JavaScript 31, 292
 JLOOXGis 300
 JSDT toolkit 299

K

knowledge domain 6
 knowledge management 264

L

land use planning 44
 landscape modeling 190
 legitimisation device 104
 Linksys Wireless Access Point Router 330
 Linux 246
 local knowledge 44
 location-aware 103, 107
 location-based services 105, 322
 London Free Map 112
 LOOX Software Inc 300

M

macrolanguage 238
 MAGIC 29
 Map Bar 227
 MapGuide 292
 MapGuide Author 269
 MapGuide Server 269
 MapGuide Viewer 269
 MapObjects 157, 292
 MapScript 248
 MapServer 112, 247
 MapXtreme 292
 MCDM tool 161
 meaningful participation 217
 medium 87
 memex 87
 Microsoft Visual Basic 300
 military precision 107
 mobile agent 143
 Mobile GIS 322

model-view-controller 289
 Modelbuilder 305
 Mozilla 246
 MS SQL server 333
 multiagent system 125
 multiattribute techniques 169
 multicriteria analysis 136
 multicriteria decision analysis 168
 multimedia GIS 69
 multiobjective decision method 169
 multiple criteria decision making 160
 multiple-user-multiple-model support 173
 multiple-user-single-model support 172
 Mumbai Free Map 111
 MySQL 249

N

napsterisation 117
 Narrowband 323
 national mapping agencies 103
 NELUPDSS 135
 neurosolutions 140
 nongovernment organizations 67
 nonspatial climate data 138

O

object management group 127
 object-oriented 123, 344
 online communities 109, 188
 ontological engineering 342
 ontology 5, 344
 open geospatial consortium 109, 242
 open source 109, 245
 open source GIS 239, 247
 open source initiative 245
 OpenGL 293
 Oracle Spatial 249
 OS 242
 OSGIS 242

P

p-games 217
 panoramic photography 51
 parameterizing SWAT 145
 PARC Xerox Map Server 104

participation 116
 participatory geographic information system 44, 210
 participatory sketch mapping 70
 patent 107
 patial decision-support systems 93
 PDA 324
 photography 51
 physical proximity 116
 planning support system 286
 plural public 225
 Pocket PC 324
 portal 210
 PostGIS 248
 PostgreSQL object-relational database 248
 prehypertext processor 242
 privacy 105
 process knowledge 344
 project design 68
 project maintenance 68
 prototype-oriented software development 307
 public participation 209, 239
 public participation GIS 27, 67, 86, 94, 151, 187
 Python 320

Q

qualitative mechanisms 113
 qualitative research 222
 quality of education 250

R

raster data model 88
 rational ignorance 152
 REASoN 319
 replicated architecture 290

S

scalable vector graphics 242, 291
 scalar weights 254
 scale 343
 scenario 255
 scenario generator bar 227
 SDSS 317

secure socket layer 251
 Semantic Web 335
 sensor Web 242
 sequential data analysis 160
 server-side 248
 single-user model of GIS 91
 single/multiple analysis support 172
 social access 72
 social interaction 3
 social networks 105
 social positioning method 105, 116
 social proximity 105, 116
 software agents 143
 software development kit 298
 soil and water assessment 136
 sound 51
 sound files 69
 spatial analysis 68
 spatial annotation 105
 spatial database engine 249
 spatial decision process 3
 spatial decision support systems 86, 134, 238, 286
 spatial discourse 94
 spatial map 11
 spatial understanding 153, 303
 spatial voting 304
 spirit 216
 SPOT 5 remote-sensing image 197
 SQL 248
 STATSGO/SURGO 144
 surveillance 105
 synchronous 296
 system design 210
 system development 198, 303

T

target-based weighting 254
 task-related geopproblems 191
 temporal dimension 69
 TerraExplorer 35
 textual narrative 51
 thematic maps 269
 thick clients 95
 thin clients 95
 three-tier architecture 292

TIGER/Line data 111
time-place framework 173
time-space taxonomy 87
toolkits 298
transdisciplinary research 342
transmission control protocol 288
transportation activists 223
transportation improvement program 209
triangular irregular network 197

U

ultrabroadband 324
unified modeling language 126
unique resource locators 95
University of Minnesota 247
unpredictable nonlinearity 170
usability 24
usability engineering 26
use-case model 225
user interface 95, 225, 248
user-centred design 37
user-delineated location 158

V

valued-concerns bar 227
video 51
virtual collaborative studio 199
virtual environment technology 189
virtual reality 189, 293
virtual tourist 104
virtual-reality GIS 34
voice 220
voting 296
VRML 194, 293

W

“WaterWare” DSS 135
Web 240
Web distribution 70
Web feature server 109, 112, 115
Web feature services 242
Web geographic information systems (GIS)
263, 269
Web map service 318
Web mapping 290

Web server 252
Web service 211
Web technology 103, 285
Web-based GIS 24, 31
Web-based technology 287
Web-mapping 245, 318
weighted summation method 171
West Virginia 44
whiteboarding 295, 296
Wikipedia 112
WiMAX 323, 324
wireless 323
workflow 297
World Wide Web 287
World Wind 35

X

X3 293
X3D 293
Xerox PARC Map Viewer 29