

Index

A

ad hoc DSS 22
Advanced Concept and Technology
Demonstration (ACTD) 279
agent-based support systems 240
air quality screening tool 94
artificially intelligent systems (AIS) 1
assessment measures 280
association 337

B

balanced scorecard 311
barrier 94
basic jurisdiction 176
benefits 333
black box 33
brainstorming 240
British Airways 309
business change management 170
business intelligence 22
business intelligence systems (BIS)
300
business process improvement 101
business strategy 159

C

case-based reasoning 196
causal mechanism levels 337
causation table 43
cause-effect 336
centralised architecture 60

change model of Lewin-Schein 343
chatterbots 241
choice of software 106
classification problem 46
clinical decision support systems
(CDSS) 217
closed-loop marketing 158
coherency 175
command hierarchy 177
communication on demand 175
communications-driven DSS 23
compound DSS 103
conceptual model 102, 109
constrained, lattice-like strategy 175
constraints of time 175
constructs 275
context 43
control room 312
cost of a solution 79
creativity enhancing system (CES) 11
critical success factor (CSF) 306, 336
current state 43
customer relationship management
(CRM) 158

D

dashboard layout 314
dashboard of information 306
data collection plans 102
data cube 51
data sources 296
data warehouse (DW) 158, 296, 306

data-driven (DSS) 23
 database-oriented (DSS) 103
 deadline jobs 181
 decision machine 46
 decision maker 2
 decision making 8, 41, 240, 306
 decision making entities 176
 decision-making process (DMP) 350
 decision making support systems (DMSS) 42, 273, 332, 393
 decision modeling 243
 decision problem 42
 decision process 44, 193
 decision support subsystems 26
 decision support system (DSS) 1, 42, 74, 86, 102, 120, 175, 178, 193, 209, 273, 307
 decision support system research (DSSR) framework 274
 decision technology system (DTS) 14, 16
 delegation 306
 Department of Defense (DoD) 279
 deployment technology 20
 development and evaluation methodologies 120
 development environment 104, 277
 development methodology 297
 development process 102, 297
 development team 294
 diagnosis 43
 difficulties in implantation 81
 dissatisfaction 42
 distributed artificial intelligence (DAI) 182
 distributed decision support system (DDSS) 174, 175
 distributed planning and problem solving system (DPPSS) 182
 distributed processing (DP) 182
 DMSS applications 393
 DMSS generators 63
 DMSS professionals 393
 document-driven DSS 24
 drill down 309
 drill down reports 8
 DSS components 23
 DSS development process 277

DSS operations process 277
 DSS processes 276
 DSS use process 276
 dynamic scoping 175, 179

E

EIS development framework 290
 EIS team 294
 EIS usage 288
 emergency evacuation 359
 emergency planning and management 359
 emission screening tool 94
 enterprise information portal (EIP) 300
 enterprise intelligence systems 300
 evolving approach 297
 executive information systems (EIS) 1, 288, 306
 executive sponsor 292
 executive support systems (ESS) 288
 expanded framework 20
 expert support system 101, 103
 expert systems 196, 208
 external consultants 297
 external cost screening tool 95

F

facilitator agent (FA) 233
 factor-based approach (FBA) 336
 failures in DMSS implementation 333
 finding the best problem solution 14
 flexibility 34
 formal concept analysis (FCA) 211
 framework 289
 fuzzy logic 196

G

genetic algorithms 10, 196
 Geodata Analysis and Display System (GADS) 30
 geographical information system (GIS) 8, 29, 359
 goals 41
 graphical user interfaces (GUIs) 306
 group decision-making 227
 groupware 64

H

hardware platform 296
 Harrah's Entertainment 158
 health informatics 120
 hierarchical architecture 60
 human-computer interaction (HCI) 209
 hybrid systems 106
 hypertext 116

I

incident 76
 individual information systems 5
 information mediation 312
 information presentation 259, 296
 information technology (IT) 396
 initiator 292
 institutional DSS 22
 integrated decision making support systems (IDMSS) 333
 intelligence phase 2
 intelligent agent technology 174
 intelligent agents 239
 intelligent support framework 227
 interagent communication 180
 interorganizational DSS 24
 intra-organizational DSS 24
 IS implementation 334

K

knowledge acquisition (KA) 108, 208
 knowledge analysis workbench 200
 knowledge base (KB) 374, 382
 knowledge base management system (KBMS) 203
 knowledge cycle 374
 knowledge economics 154
 knowledge management (KM) 143, 146, 194, 208, 374
 knowledge management systems (KMS) 374
 knowledge repository 378
 knowledge sharing (KS) 374
 knowledge spiral 198
 knowledge transfer 171, 210, 376
 knowledge transformation 199
 knowledge warehouse 193

knowledge-based systems (KBS)
 5, 208
 knowledge-driven DSS 24

L

level of expansion 179
 LEVEL5 object 106
 limited attention 314
 linear approach 297
 logical model 102
 look-ahead machines 48

M

machine learning systems (MLS) 5
 management information systems (MIS)
 273
 marketing workbench 158
 mechanistic view 336
 mobile computing 399
 model base 58
 model-based KBS 210
 model-driven DSS 24
 modeling software 32
 motivations 291
 multi-criteria decision making (MCDM)
 86
 multiagent problem solving 175
 multiagent systems 182
 multidimensional approach 20
 multidimensional spreadsheet 51

N

narrative 257
 narrative-based information systems (NBIS) 259
 natural language interaction 240
 natural language interaction-based DMSS 240
 Navigate UTOPIA 88
 necessity 337
 negotiation 175
 network architecture 59
 networks of agents 59
 neural networks 10, 196
 nonspatial (attribute) data 29
 nuclear emergency 360

O

object 115
 object linking and embedding (OLE) 35
 objectrelational adapter 233
 online analytical processing (OLAP)
 22, 306
 ontology 120, 210
 ontology management agent (OMA)
 235
 open-source 240
 operating sponsor 293
 operational capabilities 280
 operational level 105
 operational research 308
 operations environment 277
 operator training 314
 optimum message routing 180
 organizational environment 277
 organizational knowledge 197
 organizational learning 194
 organizing problem parameters 14
 outcome link 4
 outcomes 41

P

partial interruption incident 76
 patron database 158
 pattern matching 43
 performance measurement 314
 pharmaceutical industry 143
 policy option 94
 preferences 44
 pressure indicator screening tool 95
 problem data 11
 problem of DMSS implementation 333
 problem-solving 240
 problem-solving agent (PSA) 233
 problem-solving environment 177
 procedural cuing 101, 104
 proof of concept 116
 PROTÉGÉ 215
 prototype system 102
 prototyping 107, 170

Q

quality factors 273

quality metrics frameworks 274

R

railway traffic control systems 74
 Rapid Force Projection Initiative (RFPI)
 279
 recorded states 43
 reference point approach 88
 requirements analysis 107
 research framework 274
 resource scheduling 181
 ripple down rules (RDR) 208
 robustness analysis 50
 rule-oriented DSS 103

S

scalable architecture 170
 search tree 77
 short-term milestones 170
 simulating policies and events 14
 simulation machine 49
 simulation modelling 359
 simulator 49
 soft information 265
 software development process (SDP)
 334
 software vendors 297
 solver-oriented DSS 103
 source systems 162
 Spain 288
 spatial decision support system (SDSS)
 28, 360
 spreadsheet-oriented DSS 103
 stage-based approach (SBA) 343
 state of world 42
 stations 177
 statistics 196
 story 258
 structural approach 291
 structuring the decision problem 14
 support and maintenance team 294
 synthetic characters 239
 system information agent (SIA) 233
 system recommendations 177
 systems approach 349
 systems development 278
 systems dynamics 349

T

tacit and explicit knowledge 193
targeted users 20
task environment 176
text-oriented DSS 103
theory of factors 333
theory of stages 333
toolboxes 63
total knowledge 180
total-line-interruption incident 76
total quality management (TQM) 381
traffic generation 184
traffic simulation model 361
turnkey DMSS 62
typologies 20

U

unit information agent (UIA) 233
urban transport policy 87
US Department of Defense 279
user environment 277
user-centric design 399
users 294

V

variables 275
vehicle acquisition problem 178
Visual Basic for Applications (VBA) 35

W

Web technologies 300
what-if analysis 47
WINet Offers 164
Winners Information Network (WINet)
160