## Index

### A
- abstraction 9, 37, 46, 52, 175, 178-179, 194, 196, 201, 212, 221, 228
- ACKA model 138
- ADONIS 117-118, 120-121, 125-131, 133
- adoption advantage 27
- aetiology 3
- aleatory uncertainty 30
- Analytic Hierarchy Process (AHP) 26, 222
- Apade node 266
- argument mapping 87, 90-93
- artificial intelligence (AI) 73, 79, 85, 104, 107, 116-117, 132, 134-136, 145
- Binary Overlay 221-222, 225-226
- Business Architecture 181, 185-187
- Business Intelligence (BI) 194-195
- Business Intelligence Data Warehouse (BIDW) 204
- correlation coefficient 230, 232-234, 238-240, 244-245, 248-253
- crisis incident 149-151, 153, 157-159
- culture 15, 25, 27-28, 32, 37, 39, 165, 205, 207, 209, 212-213
- cutting stock problem (CSP) 269
- cutting stock problem with usable leftover (CSPUL) 269-270
- Data Base Management System (DBMS) 145
- decentralized decision-making 207
- Decision Cycle methodology 16-17
- Decision Support Engineering (DSE) 16
- Decision Support Engineering Methodology (DSE-M) 45
- Decision Support System Capability Maturity Model (DSS-CMM) 1, 3, 7
- demonstrability 43, 61-63
- depth 29
- diagnosis by levels 126
- dictionary of elements 52, 54-55
- DILIGENT 77-79, 85
- discovering inquiry 196
- domain-based language 107
- Eclipse 82
- economic network independence distribution (ENID) 259-260, 263, 265, 267
- ending conditions 273
- Enterprise Information System (EIS) 181
- epistemic uncertainty 30
- Evolutive-Incremental approach 50
- evolutive loop 46
- extensibility 13, 16
- eXtensible Markup Language (XML) 74
Index

F
file connection 261
folksonomy 109
FORTRAN 273
fragmentation 186
Fruchterman-Reingold tree 264
fusion 80-81, 192
fuzzy set theory 231, 235

G
Geographic Information Systems (GIS) 216-217, 228
Gerstenkorn and Manko method 248
global clustering coefficient 263
Grant, T.W. 59
green energy 207
group decision support system (GDSS) 89

H
Hamming distance 241
Hermes 137, 147
hierarchical database model 259-261, 263-265, 267
Hospital Care Watch (HCW) 120, 133
hub post 96
Hurricane Katrina 155, 160

I
Incident Action Plan (IAP) 152
incident commander 152, 158-159
Incident Command System (ICS) 151-152
influence diagram 55-56
information system development (ISD) 28
integer programming model 271
Integrated Decision Support 35, 150, 271, 281
Intelligent Decision Support System (IDSS) 51, 65
interactions map 186
intuitionistic fuzzy number (IFN) 232, 236
Issue Based Information System (IBIS) 92

J
Joint Application Design (JAD) 26

K
key performance indicator (KPI) 209
knapsack problem 272-273
knowledge management 5, 21, 76, 78, 89-90, 101, 114-115, 132-134, 142, 146, 193
knowledge pole 138

L
LCUT 273-275, 277-279
lineage 3
local area network (LAN) 135-136

M
MATCH 73, 120, 130, 133
maturity 4, 198, 211
medical diagnosis 109, 117-121, 123-134
METHONTOLOGY 77-78, 85
Microsoft Excel 216, 218-223, 225-227
mindmapping 92
monolithic ontology engineering 77-78
Multi-Agent Based Simulation (MABS) 137
Multi-Attribute Decision-Making (MADM) 233
Multi-Attribute Group Decision Making (MAGDM) 230-231

N
NeOn Toolkit 82
New Product and Process Development (NPPD) 138
New Product Development (NPD) 24, 31, 40
numerical procedure 57

O
object-based design 169
object-view model 166
OBO Foundry 119, 121, 134
ODDIN 124-126, 128-132
ONTOCOM 83, 86
On-To-Knowledge 77-78
ontology 72-86, 118-124, 131-134
Ontology-Based Support for Human Disease Study and Medical Ontologies 119
OntoStudio 82
Open Educational Resources (OER) 95
Ordered Weighted Averaging (OWA) 221, 228
Organizational Systems Definition 185

P
paradigm 3, 41, 117
power law 95
Prefuse Visualization Toolkit 176, 179
preparedness 149-151, 154-155, 157, 159
prevention 137, 149, 151, 154-157, 159
private model 164
Index

problem setting 197
professional development 168
Protégé editor 82
prototyping 11-12, 19, 51-52, 65, 67, 105-106
Prototyping-Evolutive approach 43-46
public health 154, 157, 160, 217
public infrastructure 154, 156

R
Rapid Ontology Development (ROD) 77, 79
raster 218-219, 221-228
recovery 149, 151, 154-155, 157-158
relational database model 260
reporting inquiry 196
requirements engineering (RE) 26
Resource Description Framework (RDF) 74
Royce’s waterfall 34
Rule Interchange Format (RIF) 83
RuleML 83

S
Sargent life cycle 37
scope 29
scrum 105-106
scrutinizing inquiry 196
semantic database model 260
semantic reasoner 82-83
Semantic Web 72-73, 77, 82-86, 118-120, 131-133
Semantic Web Rule Language (SWRL) 83
simulation 25, 29, 33
social bookmarking 92
social media 105
social mental shaping 137
Social Network Analysis (SNA) 87, 93, 98-101, 103, 260
software antipattern 81
 spatial decision support system (SDSS) 216-217
 stock length 270-273, 276
 Supervisory Control and Data Acquisition (SCADA) 205
 supply chain integration 272
 symbolic procedure 57
systems-oriented operation 182, 184
systems thinking 25, 36, 39, 191, 213

T
task dependence 77
tempo 3
TopBraid Composer 82
Toronto Virtual Enterprise (TOVE) 77
Toyota 149, 154, 161
transformation 141
transformation rule 237
Triangular Intuitionistic Fuzzy Number (TIFN) 231, 240
trim loss 270-272, 274, 279
triplestore 74-75, 83
Twitter 95, 109, 111, 116

U
uncertainty management 25, 30, 32, 37, 39, 42
Union Carbide India Limited (UCIL) 154
usability 8, 10

V
value creation 69, 183
vector 218, 241-245, 247, 271
visualization 163, 165

W
waterfall 33-34, 43, 46, 106, 111
web annotation 92
Web Ontology Language (OWL) 82, 119
Weighted Linear Combination (WLC) 221
wiki 108
Works! 164-166, 168, 170
World Health Organization (WHO) 150
World Wide Web Consortium (W3C) 74

X
XML Schema Document (XSD) 74