Index

A

academic programs 174, 178, 180, 181
Accenture 241
access control model 227, 228, 232, 233, 234, 235
Accounting Information System (AIS) 66
ACM Digital Libraries 119
adoption pattern 16, 27
airline tickets 31
allergies 283
Amazon 134, 137
American Institute of Philanthropy 295
A Nation at Risk 1
anesthesia 280, 282, 286, 288, 289, 290
anthropology 97
application model 280
architecture types 76
Association for Information Systems (AIS) 175
Augment Model 70
authority stakeholders 197, 206
authorization 227, 228, 232, 233, 234, 235, 236, 237, 238, 239
authorization object graph (AOG) 233, 234
authorization object schema (AOS) 233, 234
Automate Model 71, 72
average revenue per user (ARPU) 16

B

Bangkok Dusit Medical Services (BGH) 337
Barcode system 280
blood type 283
business components 76
business discipline 324, 325
business-process conceptualization 120
business-process engineers 120
business process management (BPM) 324, 325, 326, 328, 330, 331, 332, 334, 335
business systems 324, 325, 326, 327, 328, 329, 330, 332, 334
business to business (B2B) 201, 204, 205
business to consumer (B2C) 200, 201, 204, 205
buying cycles 309

C

Capability Maturity Model - Integrated (CMMI) 174, 175, 179, 182, 241, 257
Chief Information Office (CIO) 174, 181
classical linear city model 294, 296, 297, 303
collaboration 35
cognitive psychology 92
cognitive values 90, 91, 95, 97, 98, 101, 102
Collaborate Model 70
cost-based development (CBD) 117, 126, 127
cost-based development (CBD) 126
Component Business Model (CBM) 201
Computer-Aided Design (CAD) 200, 214
computer engineering (CE) 175, 176
Computer Engineering (CE) 175
computer science (CS) 175, 176
Computer Science (CS) 175
cost behavioral research 119
cost system modeling 324
cost behavior theory 261
cost buying processes 310, 311, 312, 313, 316, 318, 319, 320, 321
cost perceived risk 309
Index

consumer satisfaction 15, 23, 24, 26
continual service improvement 184
Control Objectives for Information and related Technology (CobiT) 174
Control Objectives for Information and Technology (CobiT) 179
cross-cultural communication 343
customer-intensive systems 133, 135, 136
customer-perceived value 31, 33, 34, 35, 37, 42
customer relationship management (CRM) 327, 342
customer satisfaction 133, 142, 145, 146
customer service 133

dataflow models 76
data services 15, 16, 28
decision-making powers 4, 5
decision support systems (DSS) 94
Destination Management Organizations (DMO) 259
direct-mail appeals 294, 297
discretionary access control model 232, 234, 235
distributed systems 76
Document Object Model (DOM) 231
Document Type Definition (DTD) 228, 229, 230, 239
Domain Description Ontology layer 87
Donors Choose 294
DOS 16
drid services (GS) 87
dynamic collaboration 81
dynamic governing models 240
dynamic virtual enterprises 76

e-commerce 32, 34, 50, 53, 259, 260, 276, 296, 309, 312, 321, 322
e-commerce applications 259
economical value 95, 97
Economic Intelligence Unit 263
economics 97
economic sectors 293
e-customers 311
e-Customer Service 67
educational decision-making processes 4
educational investments 6, 7
educational systems 1, 2, 3, 5, 6, 7, 8, 10, 12, 13, 14
education institutions 6
education researchers 97
education systems 1, 2, 5, 7, 8, 9, 10, 11, 12
e-early stages 263, 264
electronic environments 293, 294
employee training 155
end-to-end process integration 324
end-to-end services 183, 184, 187, 190
end-user computing satisfaction (EUCS) 90, 92, 93, 94, 106, 109, 110, 111
engineering 117, 118, 119, 120, 121, 122, 123, 124, 125, 127, 128, 129, 132
engineering methods 117, 118, 119, 120, 122, 125, 129
e-early stages 263, 264
enterprise application integration (EAI) 328
telecommunication 77
Enterprise Data Base Management System (EDBMS) 66
Enterprise Performance Management System (EPMS) 66
Enterprise Resource Planning applications 77
enterprise resource planning (ERP) 82, 83, 84, 85, 86, 87, 88, 89, 327, 329, 330
enterprise resource planning (ERP) systems 82, 85
e-retailers 311
e-service delivery systems 309
e-service quality (e-SQ) 260, 261, 262, 265, 270
e-services 55, 60, 62, 63, 64, 65, 66, 67, 73, 309, 313, 319, 321
E-service system (e-SS) 55, 63
e-service systems (e-SS) 55, 63, 66, 67, 73
European Union (EU) 259
Event Driven Architecture (EDA) 324, 332
Event-Driven Business Process Management (EDBPM) 324, 332
event tickets 31
exchange policies 311
Executive Information System (EIS) 66
expectation-confirmation model (ECM) 20
extended and applied an internet commerce adoption metric (eMICA) 261
extended enterprises (EE) 78
extended markup language (XML) databases 227, 228, 231, 232, 234, 235, 236, 237, 238, 239
extended markup language (XML) documents 227, 228, 229, 230, 232, 233, 234, 237, 238
extended markup language (XML) schema 227, 233

F
Facebook 134
face-to-face encounters 35
failure-tolerant architectures 81
Forester Research 263

G
GeneralInfo 229, 230, 234
generic service systems 55, 67
global communities 344
global competitiveness 336, 337, 338, 339, 341, 344
global economics 337, 344
global environment considerations 55, 63
global financial crisis 336, 338, 341, 344, 345, 347
global markets 336
global service economy 194
Global Service Relation Number (GSRN) 280
goal-directed booking 40, 45, 46
goal-directed information check 40, 46, 47
Google 119, 134, 135, 137, 142, 143, 145
Google Scholar 119
Gore, Al 133
governmental web services 120
grid service 196
Grid, the 76, 77, 78, 79, 80, 85, 86, 87, 88, 89
gross domestic product (GDP) 2, 3, 4, 5, 6, 57, 263
GuideStar 294, 297
gynecology 340

H
hardware/software adequacy 94
HCI practitioners 140, 145, 147
Health Authority in Abu Dhabi (HAAD) 343
healthcare service sector 337
heterogeneous computational resources 77
Hewlett-Packard 179
hierarchical model 35
high-level IT skills 240
Holbrooks’ typology 35, 37, 38, 47
holistic view 35, 77
homelessness 293
HP 241
HTML-based web pages 32
Hypertext Markup Language (HTML) 228, 272

I
IBM 57, 68, 69, 71, 74, 121, 130, 179, 194, 196, 201, 215, 220, 221, 222, 241, 327, 330, 331, 335
independent software vendors (ISV) 328
Industrial R&D 77
info-communication handling 60, 62
information and communication technologies (ICT) 58, 263
information based services 15
information processing 62
information products 60
information searches 309, 310, 311, 312, 316, 318, 319, 322
information systems (IS) 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 105, 106, 107, 108, 111, 173, 175, 176, 178, 179, 180, 181
Information Systems (IS) 175
information systems (IS) effectiveness 90, 91, 92, 95, 96, 97, 98, 99, 100, 101, 102, 105, 106, 107
information systems (IS) improvement 245
information systems (IS) literature 91, 97, 98, 107, 108
information systems (IS) research 90, 91, 92, 98, 106
information systems (IS) scholars 91, 92, 95, 107
Information Technology Infrastructure Library (ITIL) 121, 122, 130, 173, 174, 175, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192
Information Technology Infrastructure Library, version 3 (ITIL v3) 121
Information technology (IT) 184
Informative advertising model 294, 299
Institute for Electrical and Electronics Engineers (IEEE) 175, 177, 178, 181
Institute of Medicine (IOM) 279, 280
intangible goods 56
intangible products 60
intangible services 60
Interact-Service-Propose-Agree-Realize (ISPAR) 198, 199, 206
interface design 133, 135, 140, 141, 143, 144, 145, 146, 148
Internal Revenue Service (IRS) 164, 295
international comparisons 1, 11
International Organization for Standardization (ISO) 184, 185, 186, 188, 190, 191
Internet banking services 34
Internet consumers 310, 312
Internet retailing 309
Internet shopping 309, 310, 311, 319, 320, 321, 323
Internet technologies 133
intra-business processes 76
IT architecture 183
IT budget 173
IT culture 188
IT fields 240, 249
IT infrastructure 173, 178, 187
IT Infrastructure Library (ITIL) 174, 184
IT Infrastructure Library® (ITIL®) 183
IT knowledge streams 153
IT management 173, 174, 175, 178
IT offshore outsourcing 240, 252
IT offshoring 240, 241, 242, 247, 252, 253, 254, 255
IT operations 173, 175, 179, 180
IT organization 174, 178, 179, 333
IT organizations 174, 178, 184
IT outsourcing 241, 242, 245, 246, 253, 254, 256
IT practice 173
IT practitioners 152, 153
IT sector 246
IT service 152, 153, 166, 167, 169
IT service management 121, 152, 153, 166, 167, 172, 173, 174, 175, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192
IT Service Management 174, 178, 179, 180, 181, 182, 185, 190, 191, 192
IT Service Management Forum (itSMF) 185, 186, 187, 190, 191
IT service managers 188
IT services 153, 167, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 240, 241, 242, 243, 245, 246, 247, 248, 249, 250, 256
IT service systems 152
IT staff 183, 188, 190
IT stakeholders 153
IT structures 240
IT systems 241, 332
J
Java 15, 328
Java games 15
Joint Commission International (JCI) 342
K
key performance indicators (KPI) 200, 201, 342
Knowledge-based Dynamic Semantic Web Services (KDSWS) 126
knowledge Grid 80
knowledge robots (knowbots) 134
Index

L
laboratory reports 283
learning environments 7
linear city model 294, 296, 297, 303
linear programming 1, 10, 11, 12
Location-Based information/directory service 16

M
management gurus 213
Mapquest 134
medical care 336, 339, 341, 344
medical travelers 337, 340
mental stimulus processing 62
Mergers and Acquisitions (M & A) 329
messaging services 15, 18
meta-knowledge 80
meta-model 80, 85, 121, 262
Microsoft 58, 74, 75, 179
Microsoft Operations Framework (MOF) 179
middleware 86, 140, 231, 285, 286, 290, 328
mobile data services (MDS) 16
Mobile Data Services (MDS) 16
mobile industry 15
Mobile service adoption 17
mobile services 15, 16, 17, 18, 19, 20, 21, 22,
23, 25, 26, 27, 28, 29, 30, 34, 305
mobile telephony 15, 18
model-driven architecture (MDA) 121, 124,
127
model driven development (MDD) 123, 128
MOM 328
money back guarantees 311
multidimensional construct 91, 97
multimedia message services (MMS) 16, 28

N
National Tourism Organization (NTO) 259,
260, 262, 263, 264, 265, 266, 267, 268,
269, 270, 271, 272, 273, 274, 276
National Tourism Organization (NTO) portals
260, 262, 263, 264, 265, 267, 268, 269,
271, 272
No Child Left Behind Act (NCLB) 2
nonprofits 293, 294, 295, 296, 297, 298, 299,
300, 301, 302, 303, 304, 305, 306, 307,
308
nonprofit sector 293, 294, 295, 304, 306
Norwegian Research Council 129

O
object-oriented databases (OODB) 228, 232,
233, 234, 235, 236, 237, 238
objects-oriented database systems 227
offshoring relationships 240
one-to-one communication 32
ongoing-decision 232
online markets 296
online retail sales 309
online service providers for nonprofits (OSPN)
293, 294, 297, 299, 300, 301, 302, 303,
304, 307, 308
online services 133, 134, 135, 136, 137, 139,
140, 141, 142, 143, 144, 146, 147, 148
online shopping 34, 50, 52
on-site visits 294, 297
ontology-based index 87
Open Grid Services Architecture (OGSA) 79,
80, 87, 89
Organisation for Economic Co-operation and
Development (OECD) 2, 3, 6, 7, 9, 13,
14, 57, 74, 75, 153
Orkut 134
outsourcing decisions 240
OWL-S service descriptions 125

P
packaged tours 31, 40
Pareto-optimal organization 1, 10
Pareto optimization 1, 9, 10, 11, 12
patient identification 279, 280, 281, 282, 283,
285, 286, 287, 288, 290
payment security 311
Peer-to-Peer (P2P) 81
perceived risk 32, 34, 309, 310, 311, 312, 313,
314, 315, 316, 317, 318, 319, 320, 321,
322, 323
per-donor cost 299
personal references 311
Philippines, the 240, 241
Index

philosophers 213
platform vendors 328
Pocket Info&Enjoy 15, 16, 22, 23, 24, 25, 26, 30
political science 97
political unrest 336, 337, 338, 341, 344, 345, 347
post-industrial economy 60
pre-Authorizations 228, 232, 237
pre-Conditions 228, 232, 234, 236, 237
pre-decision 232
pre-Obligations 228, 232, 234, 236, 237
privileged access 197, 208
process assessment model (PAM) 186
process reference model (PRM) 186
project managers 325, 327
psychiatric disorders 340
psychology 92, 97, 98, 105, 106

Q
qualitative research 338, 346

R
Radio Frequency Identification (RFID) antenna 283, 286
Radio Frequency Identification (RFID) middleware software 285
Radio Frequency Identification (RFID) readers 283, 285, 286
Radio Frequency Identification (RFID) systems 281, 282, 283, 285, 286
Radio Frequency Identification (RFID) tags 281, 283, 284, 285, 286, 287
radiology studies 283
R&D groups 77
read-only memory (ROM) 285
read/write (R/W) 285
real-time information systems 35
real-time value 35
Regional Tourism Organizations (RTO) 261
regional tourist boards (RTB) 262
research methodology 55, 184, 310
Resource optimization 78
ring back tone (RBT) 15
risk-averse consumers 311
risk factors 309, 310, 312, 316, 317, 318, 319
Robotize Model 72
Role Graph Model 237

S
sales promotions 311
school budgets 4, 5
scientists 201, 206, 212, 213, 214, 215, 221
Seal of Excellence 295
semantic metadata 124
Semantic Metadata layer 87
semantic web services (SWS) 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
semi-automatic tool 124, 125
service appraisers 161, 163, 165
service architectures 55, 64
Service-based operations 76
service categories 55, 62, 73
service-centric software systems management 120
Service Centric Systems Engineering (SeCSE) 123, 127
Service Component Architecture (SCA) 125
service design 184
service facilitators 161, 163, 165
service laws 55
service level agreements (SLA) 187, 188
service management 173, 175, 179, 180, 181
service operations 184
service-oriented architecture (SOA) 77, 117, 118, 121, 123, 127, 129, 132, 153, 168, 174, 324, 325, 327, 328, 329, 330, 331, 332, 334, 335
Service Oriented Architectures (SOA) 117
service-oriented development 120, 121, 128, 132
service-oriented enterprise 183, 191
service-oriented philosophy 183, 184
service-oriented software (SOS) 152, 153
service-oriented systems (SOS) 117, 118, 119, 120, 123, 125, 127, 164
service-oriented techniques 126
service processes 55, 57, 71
service providers 161
service quality (SERVQUAL) 93, 96, 110, 260, 261, 262, 265, 270, 275
service recovery dimensions 261
Service Responsibility Table (SRT) 201
service science 133, 195, 135, 136, 140, 142, 146, 147, 148, 150, 194, 195, 197, 199, 201, 202, 205, 208, 211, 212, 213, 214, 215, 224
Service Science, Management, and Engineering (SSME) 135, 152, 153, 154, 155, 157, 172, 194, 199, 200, 212, 214, 224
service strategies 184, 191
service transitions 184
service user interfaces 55, 63, 64, 67, 73
Severe Acute Respiratory Syndrome (SARS) 281, 292
shared access 197, 209
shareholders 344
short message service (SMS) 16
short message services (SMS) 15, 16, 18, 20, 21, 22, 23, 24, 25, 26, 30
Skype 134, 144
sociability 18, 20
social emergence 213, 223
sociology 97
Software Engineering Institute (SEI) 241
Software Engineering (SE) 175
software engineering (SOSE) 153, 172, 175, 176
software services 330, 331
stakeholders 122, 153, 167, 183, 184, 188, 190, 196, 197, 198, 199, 202, 203, 204, 205, 206, 207, 208, 209, 210
Standard Generalized Markup Language (SGML) 227
Standards for Excellence Institute 295
strategic sourcing 240
Sun Microsystems 58
supply chain management (SCM) 77, 78, 89, 281, 292, 327
Supply Chain Management (SCM) 67, 327
supply chains 78
surgery 340
survey methodologies 309
SWIFT 328
system approach 55, 56
systems analysis and design (SAD) 180
T
tangible actions 62
tangible services 60
taxonomy 90, 91, 92, 95, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 119, 164, 166, 333
Technology Acceptance Model (TAM) 17, 18, 23, 26, 96, 106
Theory of Planned Behavior (TPB) 17
Theory of Reasoned Action (TRA) 17, 18, 96
Theory of Systems 155, 160, 162, 166, 168
tourism 31, 32, 33, 37, 38, 39, 40, 44, 45, 46, 47, 48, 49, 50, 52, 53
Tourism Authority of Thailand (TAT) 337
tourism products 31
tourism web sites 31, 32, 33, 38, 39, 40, 44, 45, 46, 47, 48, 50
tourist destinations 259
tourist information sites 40
tourist promotional materials 259
tour operator sites 40
traditional delivery systems 309
traditional service delivery systems 310
traditional services 309, 312, 313, 314, 315, 316, 318, 319, 320
traditional shoppers 310, 319
transaction cost theories 240, 252
Transactions Processing System (TPS) 66
transportation sites 40
travel agent sites 40
travel experiences 39
Travelocity 134, 135, 137, 145
U
UCaRE 123
unemployment 293
UNESCO Institute of Statistics (UIS) 3
Unified Modeling Language (UML) 121, 124, 127, 130
United Nations Educational, Scientific and Cultural Organization (UNESCO) 3, 13, 263
United Nations International Children Educational Fund (UNICEF) 3, 14
United States Dollar (USD) 6
usage access 227, 228, 237, 238, 239
US Department of Education 2, 6, 13, 14
user-generated content 31, 32, 49
user information satisfaction (UIS) 93, 94, 106, 111
user-perceived value 90, 91, 92, 95, 97, 98, 99, 100, 106, 107, 108
U.S. sales 309

V
value creation processes 240, 245, 252
value hierarchies 31, 33, 34, 38, 39, 40, 48, 49
value hierarchy models 31, 35, 38, 39, 40, 42, 49
value of service 345
Value-Satisfaction Taxonomy 90, 98, 99, 100, 102
Value-Satisfaction Taxonomy of IS Effectiveness (VSTISE) 90, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107
virtual enterprises (VE) 78, 79, 80, 81, 85, 87, 88
virtual enterprise (VE) models 78
virtual organizations 126
virtual private networks (VPN) 79
voice over phones 15
voting-contest services 15

W
Web 2.0 31, 32, 50
web applications 134, 137, 138, 140
WebQual 261
web services 117, 120, 125, 129, 130, 131, 132, 209, 238, 335
Web Services 117, 118, 120, 124, 125, 126, 128, 130, 131, 132, 219, 226
web services (WS) 87, 119, 120, 123, 124, 125, 129, 130, 131, 330, 331
web site reputations 311
web sites services 260
Web technologies 76
Wise Giving Alliance 295
word of mouth (WOM) 19, 24
workflow coordinator service 86
workflow environments 77
workflow management system 79, 86
workflow management systems (WFMS) 79, 89
workflow models 76, 88
World Tourism Organizations (WTO) 263, 264, 265, 276
write once/read many (WORM) 285

X
XLS transformations 234
XML based databases 228
XML Databases 227, 228
XML format 228, 235

Y
Yahoo 134