Index

A

“Adventure Learning” model 38–39
academic achievement. See also self efficacy
academic competence 187, 197, 202
active learning 22
Actor-Network Theory 2
Actor Model 5
advanced communication media 62
ARIADNE Foundation 227
assistive learning equipments. See assistive learning
technologies (ALTs)
assistive learning technologies (ALTs) 183–201.
See also computer-mediated communication
(CMC); See also computer assisted instruction; See also information technology (IT),
use in special education
assistive learning technologies (ALTs), discussion
196–198
assistive learning technologies (ALTs), findings
193–196
assistive learning technologies (ALTs), research
189–192
assistive learning tools. See assistive learning
technologies (ALTs)
assistive technologies 185. See assistive learning
technologies (ALTs); See assistive technology
device; See also information technology
(IT), use in special education
assistive technology device 184
asynchronous education 217, 222
asynchronous learning 206–212, 214–216, 219–
222, 224
asynchronous learning issues, administrative
208–213
asynchronous learning issues, external 219–222
asynchronous learning issues, stakeholders and
architectural 214–219
attitude and learning outcome relation 69–70

B

Bailey’s human performance model 187
Bandura’s social cognitive theory 141, 186–187
behavior modeling 138, 141, 145, 156–157. See
also online behavior modeling
behavior modeling training study 143–149
behavior modeling training study: discussion
150–154
behavior modeling training study: practice implica-
tions 154–157
behavior modeling training study: research implica-
tions 153–154
behavior modeling training study: results 148–149
blended learning 22
bridge-eLearning consortium 266–277
Bruner’s constructivist theory 125
business norms 12
Index

C
Champion 12
chat tools 105
classroom environment. See learning environment
collaborative learning 57, 60–61, 63, 67, 80, 82,
215–216, 224
communication effectiveness 68
communication interface 68
competence. See also academic competence; See also social competence
computer-assisted instruction (CAI) 183–186
computer-mediated communication (CMC) 185
computer-assisted communication. See computer-mediated communication (CMC)
constructivist-based learning environments 231
constructivist learning environment 121
contingent relationship 3
conversational learning community (CLC) 121, 124, 126–127
course management systems (CMS) 207, 212–213, 218, 220–221, 310
courseware 91

e-learning interactions 23
e-learning pedagogy 20
e-learning project objectives, effectiveness 18–19
e-learning project objectives, efficiency 18–19
e-learning projects 18, 22, 33
e-learning scenarios 23–24
e-learning teaching objectives 24
e-mail 105
Education Accountability System 6
educational mining technique, behavioral pattern discovery 92–93
educational mining technique, session classification 92
eLearning@LIUC descriptive framework 20–23
eLearning@LIUC project 17, 19, 23, 33
electronic blackboards 105
entrepreneur market research 43–44
entrepreneurship 37–38, 39–46, 48–54
entrepreneurship Web portal, benchmarking 42–43
entrepreneurship Web portal, prototype 45–46
Entrepreneurship Working Group (EWG) 39

F
face-to-face behavior modeling. See behavior modeling; See face-to-face interaction
face-to-face interaction 104, 137–141, 142–143, 145–146, 149–155
five dimensions of change 249–250
five dimensions of change, culture 250
five dimensions of change, design and delivery of learning 249
five dimensions of change, governance and management 249
five dimensions of change, organizational alignment 250
five dimensions of change, technology 249
formative evaluation 94, 98, 159, 162–163, 168, 172
free/libre open source software (FLOSS) 253, 255, 258, 261–262, 265
Free software 265

G
group effectiveness factors, cohesion 67
group effectiveness factors, conflict 67
group effectiveness factors, media perception 67
group interaction, cooperation 64–65
group interaction, participation 63–64
group interaction, trust 64
higher education 35, 36
human activity assistive technology (HAAT) model 187–189
human activity assistive technology (HAAT) model, activity component 188
human activity assistive technology (HAAT) model, context component 188
human activity assistive technology (HAAT) model, human component 188
human activity assistive technology (HAAT) model, technology component 188
hypermedia delivery environments 163
hypertext, navigational aids 235–246
hypertext delivery environments 163
hypertext problems, cognitive overload 235
hypertext problems, disorientation 235
hypertexts 235
hypertextuality 21

illuminative evaluation 162
information and communication technologies (ICTs) 17–20, 22–23, 26, 29–30
information and communication technology (ICT) 122, 128, 133–134, 304
information technology (IT), use in special education 185–186, 196–198, 201–202
instructional design 161, 180
instructional interactivity 121, 124, 133–135
integrative evaluation 163, 180
interaction, process and attitude relation 68–69
Interaction Model 4
interactive multimedia instruction 164
interactive tutorial 90–91, 95–98
interactive tutorial, discussion 98–99
interactive tutorial, research 92–99
interactive tutorial, results 94–98
interactivity 21, 122–124, 126, 128, 130–135
interoperability 265
interviews 6

Java program 164

knowledge portal 37, 40, 41, 44, 45

learner-resource interaction 130
learning, engagement 60
learning, outcomes 60–61
learning, perceived 61
learning, process satisfaction 61
learning behavior 90–94, 99
learning behavior aspects, acceptance 93, 95–96
learning behavior aspects, motivation 93, 94–95
learning behavior aspects, organization 93, 96–97
learning behavior aspects, usage 93, 97–98
learning management system (LMS) 281, 284–285
learning management systems (LMSs) 159–161, 163, 165, 168, 174, 178, 179, 182
learning management systems (LMSs), assessment 159, 161–163, 167–168, 172, 179
learning management systems (LMSs), collaboration tools 160
learning management systems (LMSs), course design features 160
learning management systems (LMSs), course management features 160–161
learning management systems (LMSs), definition 160
learning technologies. See computer-assisted instruction (CAI)
learning technology, definition 161
learning tools 103–107, 109, 114, 116, 118
Linux tipping point 264
literacy 128–131, 133–134

Macromedia Flash program 164
media richness theory 62
metacognition 226, 230, 232, 234, 238, 242, 244, 246
metacognitive framework 233–235
metacognitive framework, in practice 236
metacognitive framework, LO implementation 238–242
metadata 227–228, 231–232, 235, 239–242
mobile learning (m-learning) 219, 221–222
Moore’s transactional distance theory 126
motivation. See also academic competence; See also self efficacy
motivation and beliefs. See also self efficacy
multi-dimensional analysis 3
multimedia, instructional design. See multimedia design
multimedia design 159, 165–166, 173
multimedia evaluation guidelines 159
multimediality 21

O
online asynchronous software training. See software training methods
online behavior modeling 137–143, 145–146, 149–155, 157
online education 38, 51
online learning enhancement 47–48
online synchronous software training. See software training methods
open source software, drawbacks to 258
open standard 265

P
Pask’s conversation theory 125
peer-to-peer tools 105
politics 8
problem-based learning 63
Process Model 5
Prometheus LMS 168–172. See also formative evaluation; See also learning management system (LMS)

R
reach (quantity) 18
real-world projects 38
reproducibility 18
richness (quality) 18

S
self-appraisal of competency. See self-efficacy
self-competence. See self-efficacy
self-efficacy 186–187, 189, 197, 203
sharable content object reference model (SCORM) 227
social competence 187, 197–198, 203
social networks 39
social presence theory 62
software-mediated learning 89
software training methods 137–140, 142, 144, 150–156
Stoner’s learning technology model 161, 180
student satisfaction 102, 104, 113
summative evaluation 159, 161, 163, 168, 172–179
summative evaluation, criteria 174–179

T
teacher education accreditation 2
teaching professionals 11
technology mediated communication. See computer-mediated communication (CMC) tools. See learning tools
total cost of ownership (TCO) 256, 265
transactional distance 123, 126, 135

U
unit of learning (UoL) concept 228–229

V
videoconferencing 44, 47–50, 105
virtual campuses 255
virtual class 38–39, 47
virtual class, importance of culture and participation 48
virtual class, importance of synchronous communication 49
virtual class, real-world project use 49
virtual class process 41–46
virtual classrooms 105
virtual learning communities 38
virtual learning environments 57
virtual teams 45–48
VTEL program 105
Vygotsky’s social development theory 125–126

W
Web-based course 105, 107, 109, 112–113, 116–118
Web-based course content 105
Web-based courses 111–112
Web-based course tools 128–131
Web-based design, challenges 133
Web-based design, opportunities 131–133
Web-based education 105–107, 118
Web-based education (WBE) 303–326
Web-based education (WBE), definition 305–309
Web-based education (WBE) case study 309–311. See WebMBA
Web-based education (WBE) challenges 322
Web-based entrepreneurship knowledge portal 40
Web-based environment. See learning environment
Web-based information systems 58
Web-based instruction 159, 179, 181
### Index

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-based interface</td>
<td>58–59</td>
</tr>
<tr>
<td>Web-based interface research</td>
<td>70–79</td>
</tr>
<tr>
<td>Web-based learners</td>
<td>62</td>
</tr>
<tr>
<td>Web-based learning systems</td>
<td>58–59, 59–60</td>
</tr>
<tr>
<td>Web-based technologies</td>
<td>37–39</td>
</tr>
<tr>
<td>Web-based tools</td>
<td>38</td>
</tr>
<tr>
<td>Web-based virtual environment</td>
<td>38</td>
</tr>
<tr>
<td>Web-mediated interactive tutorial system</td>
<td>90</td>
</tr>
<tr>
<td>Web-mediated learning</td>
<td>89</td>
</tr>
<tr>
<td>Web classes</td>
<td>105</td>
</tr>
<tr>
<td>WebCT</td>
<td>128–131, 134</td>
</tr>
<tr>
<td>Web design guidelines</td>
<td>166–168</td>
</tr>
<tr>
<td>WebMBA</td>
<td>309, 310, 312, 313, 317, 318, 319, 321, 322</td>
</tr>
<tr>
<td>WebMBA diffusion</td>
<td>319–322</td>
</tr>
<tr>
<td>WebMBA product development</td>
<td>311–319</td>
</tr>
<tr>
<td>Web portal</td>
<td>43, 48</td>
</tr>
<tr>
<td>Web tutorials</td>
<td>89</td>
</tr>
<tr>
<td>Web usage mining</td>
<td>89–90, 92–93, 96, 98</td>
</tr>
<tr>
<td>Web-mediated learning</td>
<td>57</td>
</tr>
<tr>
<td>wisdom communities (WisCom) model</td>
<td>38</td>
</tr>
</tbody>
</table>