Index of Key Terms

A
AAAS (American Association for the Advancement of Science), 44-47, 49, 221
academic achievement, 275, 276, 348
acceptable use policy (AUP), 142
accuracy, in Web site evaluation, 386
active and interactive studying, 375
active involvement, student, 325
active learning, 205, 375, 381, 387–388
active role, in reading, 24
activities, classroom DV, 252–264
addiction, as limitation in e-learning, 387
adolescence, conceptualization of, 159
adolescents
and blogging, 338, 343-345
and internet chatrooms, 159-172
privacy, 164
affordable personal computers, 410
alternative assessment, 440
American Association for the Advancement of Science. see AAAS
analytical skills, high-level, 78
antiunion practices, 56
approaching sustainability and scalability, 241-243
assessment formats, 440
assessment, of electronic portfolios, 439-440
asynchronous communication, 363, 374, 382
asynchronous delivery mode, 377-378, 381-383, 388
asynchronous distance learning, 373
asynchronous engagement, 202
at-risk learners, 65-68
attitudes, teacher, 611
audience, 89
audio inputs and outputs, 259-260
AUP (acceptable use policy), 142
Australian national goals for schooling, 76
authentic assessment, 440
authority, in Web site evaluation, 386
authorship, in Web site evaluation, 332
awareness, ethical and legal, 137-149

B
battery life, of tablet PCs, 416
benefits of SDL, 377
Blog6, 366-367
BlogCensus, 341
Blogcount, 341
bloggers, 338
blogosphere, 340-341
blogs, 338-353
education and research, 343
elementray and middle school, 347-348
features of, 339-340
types of, 342-343
Bluetooth, 309-310
book buddy project, 536-544
collaboration, 541-542
communication, 539-541
guidelines, 548
learning environment, 542-543
building knowledge, in teacher education, 486
Building Understanding in Literacy and Teaching (BUILT), 473-490
BUILT (Building Understanding in Literacy and Teaching), 473-490

C
C2K (Classroom 2000), 184
CAI (computer-assisted instruction), 532-533
CAL (computer-assisted learning), 398, 587
camcorders, 248-265
candidate-centered assessments, 446-448
career aspirations, 124
CBT (computer-based training), 587
CCDs (charge-coupled devices), 259
CD-ROMs, 256, 259
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cellular telephones, 317-319</td>
<td></td>
</tr>
<tr>
<td>Center for Science, Mathematics, and Engineering Education (CSMEE), 49</td>
<td></td>
</tr>
<tr>
<td>central education platform, 13-14, 17</td>
<td></td>
</tr>
<tr>
<td>change agents, 242-243</td>
<td></td>
</tr>
<tr>
<td>change-technology, 235-243</td>
<td></td>
</tr>
<tr>
<td>charge-coupled devices (CCDs), 259</td>
<td></td>
</tr>
<tr>
<td>chatrooms, 158-172</td>
<td></td>
</tr>
<tr>
<td>logs, 165-171</td>
<td></td>
</tr>
<tr>
<td>teen, media treatment of, 164-165</td>
<td></td>
</tr>
<tr>
<td>children's book project, 426-434</td>
<td></td>
</tr>
<tr>
<td>citations, in Web site evaluation, 386</td>
<td></td>
</tr>
<tr>
<td>classroom 2000 (C2K), 184</td>
<td></td>
</tr>
<tr>
<td>CMI (contextualized multiple intelligence), 1, 3</td>
<td></td>
</tr>
<tr>
<td>cognitive constructivism, 501</td>
<td></td>
</tr>
<tr>
<td>cognitive learning, 360</td>
<td></td>
</tr>
<tr>
<td>collaboration, 278-279, 344-345, 353, 535, 541-542</td>
<td></td>
</tr>
<tr>
<td>collaborative learning, 362-364</td>
<td></td>
</tr>
<tr>
<td>collaborative tool, 579</td>
<td></td>
</tr>
<tr>
<td>collaborative writing, 81-82</td>
<td></td>
</tr>
<tr>
<td>collection, in electronic portfolios, 443</td>
<td></td>
</tr>
<tr>
<td>communication asynchronous, 363, 374, 382</td>
<td></td>
</tr>
<tr>
<td>computer-mediated, and literacy, 533-536</td>
<td></td>
</tr>
<tr>
<td>between high school and university students, 534</td>
<td></td>
</tr>
<tr>
<td>in online community development, 564</td>
<td></td>
</tr>
<tr>
<td>in technology integration, 278-279</td>
<td></td>
</tr>
<tr>
<td>communication skills, 326</td>
<td></td>
</tr>
<tr>
<td>communication technology. see ICT</td>
<td></td>
</tr>
<tr>
<td>communities of practice (CoPs), 195, 575-584</td>
<td></td>
</tr>
<tr>
<td>community blogs, 342</td>
<td></td>
</tr>
<tr>
<td>community-building, 22, 26-29</td>
<td></td>
</tr>
<tr>
<td>community, defining, 553-554</td>
<td></td>
</tr>
<tr>
<td>community development in online settings, 558</td>
<td></td>
</tr>
<tr>
<td>community interactions, design of, 578</td>
<td></td>
</tr>
<tr>
<td>community, negative aspects of, 554</td>
<td></td>
</tr>
<tr>
<td>community, online learning, 553-567</td>
<td></td>
</tr>
<tr>
<td>complexity, technological literacy, 228</td>
<td></td>
</tr>
<tr>
<td>comprehension, text, 25</td>
<td></td>
</tr>
<tr>
<td>computer-assisted instruction (CAI), 532-533</td>
<td></td>
</tr>
<tr>
<td>computer-assisted learning (CAL), 398, 587</td>
<td></td>
</tr>
<tr>
<td>computer-based training (CBT), 587</td>
<td></td>
</tr>
<tr>
<td>computer ethics, 148-149. see also RT technologies (RT)</td>
<td></td>
</tr>
<tr>
<td>computer hardware, choosing, 257-260</td>
<td></td>
</tr>
<tr>
<td>computer knowledge and skills, teacher’s, 627-628</td>
<td></td>
</tr>
<tr>
<td>computer literacy, 39-40, 394-407</td>
<td></td>
</tr>
<tr>
<td>computer-mediated communication and literacy, 533-536</td>
<td></td>
</tr>
<tr>
<td>computer-mediated discussion, 532-533</td>
<td></td>
</tr>
<tr>
<td>computer software, teacher knowledge of, 610-611</td>
<td></td>
</tr>
<tr>
<td>computer-supported collaborative learning (CSCL), 580</td>
<td></td>
</tr>
<tr>
<td>computers and literacy learning, 532-533</td>
<td></td>
</tr>
<tr>
<td>computers, informal use of, 124-125</td>
<td></td>
</tr>
<tr>
<td>computers on wheels (COW), 311</td>
<td></td>
</tr>
<tr>
<td>conditions of learning, 518</td>
<td></td>
</tr>
<tr>
<td>conflict between face-to-face and online literacy, 212-213</td>
<td></td>
</tr>
<tr>
<td>congruence, 521</td>
<td></td>
</tr>
<tr>
<td>connection, in electronic portfolios, 443</td>
<td></td>
</tr>
<tr>
<td>connectivity to the Internet, 410, 416</td>
<td></td>
</tr>
<tr>
<td>consensus, in constructivism, 501-502</td>
<td></td>
</tr>
<tr>
<td>constraints, for teachers, 627-629</td>
<td></td>
</tr>
<tr>
<td>constructionism, 100, 556-557</td>
<td></td>
</tr>
<tr>
<td>constructivism, 99-100, 323, 325, 493-512</td>
<td></td>
</tr>
<tr>
<td>in active learning, 387-388</td>
<td></td>
</tr>
<tr>
<td>history, 498-500</td>
<td></td>
</tr>
<tr>
<td>and new technologies, 505</td>
<td></td>
</tr>
<tr>
<td>vs. traditionalism, 301</td>
<td></td>
</tr>
<tr>
<td>types of, 500-502</td>
<td></td>
</tr>
<tr>
<td>constructivist-based pedagogy, 453, 463</td>
<td></td>
</tr>
<tr>
<td>constructivist learning, characteristics of, 502-504</td>
<td></td>
</tr>
<tr>
<td>constructivist learning models, 249</td>
<td></td>
</tr>
<tr>
<td>constructivist learning theory, 325-326</td>
<td></td>
</tr>
<tr>
<td>constructivist perspective, 432</td>
<td></td>
</tr>
<tr>
<td>constructivist teaching, 274, 387, 426, 504-505</td>
<td></td>
</tr>
<tr>
<td>constructivist uses of computer technologies, 325-326</td>
<td></td>
</tr>
<tr>
<td>contemporary constructivism, 500-502</td>
<td></td>
</tr>
<tr>
<td>content/basic thinking, 278-279, 282-283</td>
<td></td>
</tr>
<tr>
<td>context, 562-563, 575</td>
<td></td>
</tr>
<tr>
<td>contextualized multiple intelligence (CMI), 1, 3</td>
<td></td>
</tr>
<tr>
<td>convergence, economic and technical, 56-57</td>
<td></td>
</tr>
<tr>
<td>cooperative learning activity, DV production as, 254</td>
<td></td>
</tr>
<tr>
<td>CoP framework, role of technology in, 579-581</td>
<td></td>
</tr>
<tr>
<td>CoPs (communities of practice), 195, 575-584</td>
<td></td>
</tr>
<tr>
<td>copying from Web sites, 387</td>
<td></td>
</tr>
<tr>
<td>copyright concerns, in DV use, 264</td>
<td></td>
</tr>
<tr>
<td>copyright law, 147-148</td>
<td></td>
</tr>
<tr>
<td>copyright policy, 142-144</td>
<td></td>
</tr>
<tr>
<td>course Web sites, 374-376</td>
<td></td>
</tr>
<tr>
<td>courses in SDL, 373-374</td>
<td></td>
</tr>
<tr>
<td>coverage, in Web site evaluation, 386</td>
<td></td>
</tr>
<tr>
<td>COW (computers on wheels), 311</td>
<td></td>
</tr>
<tr>
<td>creative thinking, in technology integration, 278, 279</td>
<td></td>
</tr>
<tr>
<td>creativity skills, 48</td>
<td></td>
</tr>
<tr>
<td>critical emotional literacy, 22, 23, 29-30</td>
<td></td>
</tr>
<tr>
<td>critical literacy skills, 332</td>
<td></td>
</tr>
<tr>
<td>critical meta-language, 484</td>
<td></td>
</tr>
<tr>
<td>critical thinking, 10, 95, 278-279, 458-464</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Coefficient Alpha, 413, 417, 422</td>
<td></td>
</tr>
<tr>
<td>CSCL (computer-supported collaborative learning), 580</td>
<td></td>
</tr>
<tr>
<td>CSMEE (Center for Science, Mathematics, and Engineering Education), 49</td>
<td></td>
</tr>
<tr>
<td>CTELL Project, 28</td>
<td></td>
</tr>
<tr>
<td>currency, in Web site evaluation (up 1 level), 386</td>
<td></td>
</tr>
<tr>
<td>curriculum content of, 182-190</td>
<td></td>
</tr>
<tr>
<td>integration of, 394-407</td>
<td></td>
</tr>
<tr>
<td>literacy-technology nexus and, 122-123</td>
<td></td>
</tr>
<tr>
<td>and pedagogy, 132-134</td>
<td></td>
</tr>
</tbody>
</table>
Index of Key Terms

curriculum pathways, 126-127
curriculum standards, 251-253
cyberdentity, 208

d
“damned or beautiful”, 159
database programs, 278
databases, 88-89
datalogging, 87-89
definitional confusion, implications of, 228-229
deictic perspective, 22
delivery of content, in DV technology, 250-251
department commitment to ICT (tactical), 594
design
  for community interactions, 578
  instructional, 517-523
  instrument, 411-412
  for knowledge stealing, 576
design principle, 121
design resources, 526
designing instruction vs. lesson planning, 523
development of a powerful ICT environment, 9-10
digital content delivered on local school networks, 185
digital divide, 35, 74-75
digital gap, 387
digital generation, 121
digital imaging, 287
digital information technology networks, 56
digital literacy, 299, 303, 344
  in re-schooling, 176-193
  WebQuests and, 322-334
  and wireless technology, 308-319
digital planners, 315-317
digital video (DV)
  classroom activities in, 252
  production, 247-266
  projects, 263-264
  technology and learning, 249-250
digitization of textbooks, 414
direction, in electronic portfolio creation, 443
disciplinary specific literacies, 484-485
discussion, computer-mediated, 532-533
discussion groups (forums), 376-377
Dissolving Boundaries project, 188-193
distance learning, 373-383
Documents-to-Go, 291
domains, semiotic, 121
double helix of education and the economy, 37-38
Draw button, 430
durability of handheld devices, 302
DVD authoring software, 261-262
DVD delivery option, 256

e
e-books, 425-435
E-Campus, 538
e-learning
  academic achievement in, 376
  blended, 378
  emerging use of, 586-601
  limitations of use, 386-387
  pedagogical aspects of, 387-388
  strategy, 590-591
  support, 591
e-mail, 86, 363, 429, 433-434, 457-458, 606
economic awareness, 182
economic literacy, 322
Education Technology Strategy, 183
educational activities, and handheld devices, 290, 299
educational landscape, 410
educational reform, 196-197
educational technology, 97, 218, 221
educational technology division (ETD), 242
effectiveness of learning, 412
effects, 387
efficiency, 119
efficiency, in ICT, 119
efficiency, in Web site evaluation, 386
electronic books, 425-435
electronic portfolios, 437-449
  assessment of, 439-440
  links in, 444-446
  research literature on, 441
  resources, 448
electronic self, 565
employability, 182
engagement, 464
  in learning/teaching cycle, 486
  in technical literacy, 65
engaging new configurations of learning, 213-214
enGauge, 227-228
English language learners (ELLs), 455, 631
English literacy, development of, 461
environmental considerations in teaching ESL, 628
environmental responsibility, 182
erosion of collective identity, 162
ESL (English as second language), 460-461
ESL (English as second language), teaching
  time constraints in, 629
  tips for, 640-641
establishment phase of innovation, 239
ETD (educational technology division), 242
ethical and legal awareness, 137-149
ethics, 148-149
evaluation
  instructional, 522
Index of Key Terms

of Web sites, 386
events of instruction, 518
evolution phase of innovation, 239
experiential learning, 430-431
expert, 486
explicit knowledge, 557, 575
external classroom environment, 143

F
face-to-face and online literacy, conflict between, 212-213
face-to-face-based teaching, 374-378
facilitation of self-learning, 574-576
failure in the use of technology in learning, 198
failure of ICT-enhanced curricula, 198
failure of ICTs, 214
fair use guidelines in responsible use of technology, 147-148
feedback
components, 390
computerized, 388
in course Web site, 376
response to, 81
of student, 204-211
toward students, 389-390
financial issues in technology use, 629
firewire connectivity, 249
flexibility
of handheld devices, 290
of hypertext, 23-24
teacher, 191
focused learning, role of school in, 182
formality, 228
format and presentation, in Web site evaluation, 386
formative stance, 228
forums, 376-377
fully online asynchronous course, 381-383
functional literacy, 40, 119

G
“garbage in, garbage out” (GIGO), 254
gender relevance, 208-212
gendered, 196
generalized knowledge worker, 66
genres, school, 481-482
geometry, learning with ICT, 397-398
GIGO (“garbage in, garbage out”) effect, 254
global awareness, 323
globalization, 56-58, 162-164, 634
graphic organizer programs, 278
grids of specification, 164
“Gringoism”, 63
guiding student action, 67

H
hackers, 140
handheld applications, 315-317
handheld devices, 287-303, 290, 315-317
hardware, choosing, 257-260
hardware, portable computer, 312
hierarchical hypermedia linking, 475
high-order learning, 7, 9
high-performance work systems, 58
high-skill production workers, 58-59
high-tier knowledge professionals, 58
higher-order skills, 78-83, 89-91
higher-order thinking, 79, 86-90
hot spot, in electronic portfolios, 444
human needs, 42
hypermedia linking, 475
hypertext, 22-25
hypertext literacy, 23-25

I
ICT-enabled educational practices, 235-237
ICT (information and communication technology)
department commitment to (tactical), 594
environment, development of, 9-10
failure of, 214
generation learning and, 397-398
integration of, 23-25, 238, 407, 603-622
in networked environments, 2-17
paradigm shift in, 14-17
resources, 594-595
responsible use of, 137-157
school uses of, 73-92
as teaching tool, 75-76
ICT Management Model, 593-595
identity concept of media literacy, 458-459
image stabilization, 260
imagined life trajectories, 126-127
impact of technology on learning, 94-97
improved learning, 198
indicators of care, in Web site evaluation, 332
individualized learning, 3-4
individualized teaching, 5
industrial education, 48
informal knowledge, 557
informal use of computers, 124-125
informal workers, 59-60
information and communication technology. see ICT
information literacy, 40-41, 136, 363-370, 401
information need, 228
information overload, 386
information problem solving, 357-370
information processing theory, 360
Index of Key Terms

information retrieval skills, 76
information society, 605-607
informative stance, 228
InfoSavvy, 365
infrastructure, wireless, 416
innovations, in media literacy, 458, 463
inspiration and stimulus, in DV teaching, 250
instructional computer use, 615-619
instructional conversation (IC), 631
instructional design, 517-523
instructional evaluation vs. student assessment, 522
instructional methodologies, 358
instructional planning, 524-525
instrument design, 411-412
integrated learning systems (ILS), 75
integration of technology, 323-324, 373
interaction through technology, in ESL, 640
interactive Web pages, 290
interconnected-communication resources, 527-528
intermediality, in media literacy, 458, 460-462
international models of laptop use, 312-313
International Society for Technology in Education (ISTE), 43-44, 47, 50, 102-103, 223
International Technology Education Association (ITEA), 46-47
Internet
as communication channel, 86-87
connectivity to, 410, 416
for publishing, 87
as research tool, 104-106
Internet access, absence of, 363-364
Internet chatrooms, 158-172
Internet relay chat (IRC), 159-162
interpersonal and behavioral skills, 59
IRC (Internet relay chat), 159-162
isolation and social estrangement, as limitation in e-learning, 386
issues, in media literacy, 458, 462-463
ISTE (International Society for Technology in Education), 43-44, 47, 50, 102-103, 223
IT environment, 9-10
IT MasterPlan for Education (Singapore), 235
ITEA (International Technology Education Association), 46-47

J
JISC model, 589
join and quit messages, 165
journalism blogs, 342

K
Key Learning Area (KLA), 470
knowledge

construction of, 557-558
explicit, 557, 575
informal, 557
structured, 557
tacit, 557, 574-576
knowledge blogs, 343
knowledge building in teacher education, 486
knowledge class, 58
knowledge management (KM), 574-583
problem formulation for, 577-578
product and process in, 577
knowledge (new) economy, in ICT, 119
knowledge of computers, teacher’s, 627-628
knowledge society, 66, 74-76
knowledge stealing, design for, 576
knowledge workers, 55, 57-58, 65, 67-68, 125-126
Kodak PalmPix, 293

L
language, 475-489
language proficiency, 322
laptop computers. see also tablet PCs
international models of use, 312-313
studies on, 272-276
use by teachers, 274
law breaking, as limitation of e-learning, 387
LCD viewscreens, 254, 259, 268
learner-centered instructional design, 519-520
learning, 493-494, 499-500
active, 205, 375, 381, 387-388
cognitive, 360
collaborative, 362-364
conditions of, 518
effectiveness of, 412
experiential, 430-431
high-order, 7, 9
individualized, 3-4
localized and globalized, 4
low-order, 6, 9
in a networked environment, 7-14
new, 121
paradigm shift in, 2-4
problem-based, 366-361
reproduced, 2-3
student-centered, 358, 360-361
triplized, 8
Web-based, 4, 5, 9-10
learning architecture, 202-204
learning community, 363, 376
learning community development model, 562-564
learning design, 202-204
learning environment, 185, 325-326, 384-385
learning-in and learning-through technology, 204-206
Index of Key Terms

Learning NI software platform, 185-187
learning organisation, school as, 177
learning process, communities in, 556-558
learning strategies, 361-362
learning-teaching interaction, 494, 507-509, 512
learning technologies, 196-197
legal and ethical awareness, 137-149
legal recommendations for responsible technology use, 147-148
legitimate peripheral participation, 475
Letus, 239
limitations of use in e-learning, 386-387
limitations of WebQuests, 331-334
*The Limits to Growth*, 62-63
links, in electronic portfolios, 444-446
listening, as aspect of literacy, 471-472
literacies
  - new, 121, 472-473
  - traditional, 532-533
literacy, 219-221
  - computer, 39-40, 394-407
  - and computer-mediated communication, 533-536
  - critical emotional, 22, 23, 29-30
  - digital, 176-193, 299, 303, 308-319, 322-334, 344
  - economic, 322
  - face-to-face, 212-213
  - functional, 40, 119
  - hypertext, 23-25
  - information, 40-41, 136, 363-370, 401
  - in K-12 teacher education, 469-490
  - media, 40, 458-464
  - multicultural, 323, 327
  - nature of, 22-23
  - online, 212-213
  - representational, 220
  - scientific, 322
  - technological, 41-51, 55-69, 277-278, 322
  - technology and, 21-30
  - verbal, 343
  - visual, 338, 344, 353, 387, 605
literacy and technology in schools, 454-456
literacy, as limitation in e-learning, 386
literacy learning, and computers, 388
literacy strategies, 455
literacy-technology interface, 119-120
literacy-technology nexus, 122-123
literature, computer-mediated discussions on, 535-536
LiveJournal, 341
loading mechanism, 260
localized and globalized learning, 4
localized and globalized teaching, 5-6
low-level thinking, risk of, 76-77
low-order learning, 6, 9
lower-order thinking, 78

**M**
Maine Learning Technology Endowment, 275-276
managed learning environment (MLE), 589
mathematics instruction, 394-407
maturation phase of innovation, 239
media literacy, 40, 458-464
media, new, 121
media technologies, 453, 459-460, 464, 472
memo pad, 291
mercy ships, 71
meta-national firms, 57
metacognitive strategies, 361-362
metanavigation support, 25
Microsoft Excel, 291
motivation and self-drive, in e-learning, 387
motivation of students, 80-81
multicultural literacy, 323, 327
multimedia and Web authoring programs, 278
multimedia, in technology integration, 383-385
mutability, 89
mutability of text, 80-81

**N**
nanotechnology, 287
National Academy of Engineering (NAE), 49
National Educational Technology Standards (NETS), 43
National Public Radio (NPR) Web site, 634-636
National Research Council (NRC), 49
natural will, 558
nature of literacy, 22-23
negative feedback, toward students, 389-390
NETS (National Educational Technology Standards), 43
network enterprises, 67
networked environment, learning in, 7-14
networked human environment, 10-11
networked learning, 4, 67-68
networked school, 67-68
new configurations of learning, 197-199
new learning, 121
new learning technologies, 196-197
new literacies, 121, 472-473
new media, 121
new metropolis, risks and opportunities in, 60-61
new paradigm of triplized teaching, 5-7
new technology, 506, 510
New York Times Web site, 636-638
Nintendo generation, 121
non-linear text, in e-learning, 386-387
Northern Ireland Schooling System, 177-179
notebook computers. *see* laptop computers; portable computers; tablet PCs
NPR (National Public Radio) Web site, 634-636
numeracy, 178, 322
### Index of Key Terms

**O**
- objectivity, in Web site evaluation, 386
- obstacles, overcoming with technology, 429-432
- occupation categories for global economy, 58-60
- one-to-one computers, 272
- online and face-to-face literacy, conflict between, 212-213
- online communities
  - sense of community in, 555-556
  - significant purpose in, 563
- online courses, 373-383
- online digital content and services, 185-187
- online inquiries, 368-369
- online journals. see blogs
- online literacy, 212-213
- organized irresponsibility, 162-163
- outsourcing, 220

**P**
- paradigm, new, 2-7
- PDAs (personal digital assistants), 309, 315-317
- pedagogical approach, 402-403
- pedagogical strategy, 402-403
- pedagogy models, 475, 485
- Performance Indicators for Technology-Literate Students, 251-252
- peripheral participants in CoPs, 578-580
- Perseus Development Corporation, 341
- personal blogs, 342
- personal computers. see also laptop computers; tablet PCs
  - affordability, 410
  - use of, 615
- personal digital assistants (PDAs), 309, 315-317
- personal identity, 181
- perspective-taking, in WebQuests, 326-327
- plagiarism, 142, 148
- planners, digital, 315-317
- platform theory, 12-14
- portable computer hardware, 312
- portable computers, 312-315. see also laptop computers; tablet PCs
- portable computing, 299, 309, 312-313
- portfolio assessment, 439-440
- portfolios, electronic. see electronic portfolios
- positive feedback, toward students, 390
- preparation, teacher, 524-525
- presentation software, 278
- privacy issues
  - with adolescents, 164
  - in DV production, 265
  - with wireless devices, 318
- privacy rights, 142
- problem-based learning, 360-361
- problem formulation for knowledge management, 577-578
- problem solving, 48, 67, 68, 323-324, 357-370
- process-oriented view of knowledge, 581-583
- process re-engineering, 58
- product and process in knowledge management, 577
- product-oriented view of knowledge, 581-583
- professional development, teacher, 28-29, 595
- profit-and-loss pattern, 296
- project samples for K-12 teachers, 453
- Public Broadcast System (PBS) Web site, 638-639

**Q**
- quality, 296
- quality of output, 80

**R**
- radical constructivism, 501
- radio frequency (RF), 309-310
- rational will, 558
- re-schooling, 176-193
- reading, 532-533
- reading processes, 471-474
- real-world tasks, 358
- reason and context, 562-564
- reconstruction of technological literacy, 65-67
- recording best practices, 251
- recording of classroom events, 251
- referential, 475
- reflection
  - in electronic portfolio creation, 443
  - in learning/teaching cycle, 486
  - through the ELP, 27
- reform, educational, 196-197
- relevence of gender, 208-212
- repertoire of literacy practices, 132
- representational literacy, 220
- reproduced learning, 2-3
- research tools, Internet as, 104-106
- response to feedback, 81
- responsible technologies (RT), 137-150
- responsible technology use, legal recommendations for, 147-148
- rise of technological literacy, 61-62
- risk society, 159, 162
- risks and opportunities in the new metropolis, 60-61
- role-playing, 327
- routine workers, 59

**S**
- sample K-12 projects, 453
- scaffolding
  - as multimedia architecture, 487
  - use in technology education, 452-464
Index of Key Terms

school-based platform, 13-14, 17
School technology & readiness (StaR) charts, 226-227
Science for All Americans Project 2061, 44-46
Science, Technology, and Society (STS) concept, 62-63
scientific literacy, 322
SDL. see Synchronous Distance Learning
selection, in electronic portfolios, 443
self-learning
facilitation of, 574-576
in networked environment, 10-12
self-learning cycle, 8-9, 12
semiosis, 119, 123, 133
semiotic domains, 121
semiotic principal, 121
sense of community, 555-556
significant purpose, in online communities, 563
simulations and interactions, access to, 202
Singapore, IT MasterPlan for Education, 235
site-bounded learning, 3
situated constructivism, 501
skills, higher-order, 79-83, 89-91
“Smart” networked environments, 58
smartness, in ICT, 119
social constructivism, 501-502
social e-space. see chatrooms
socio-cultural approach to literacy learning, 120
socio-technical environment, 614-615
soft skills, 68
software, choosing, 261-262
software knowledge, teacher’s, 610-611
sources of ideas, in judging WebQuests, 332
speaking, as aspect of literacy, 471-472
specifications vs. development, in systemic innovation, 238
sponsorship, in judging WebQuests, 332
spreadsheet programs, as classroom tool, 277
spreadsheets, 87-89
staff appraisal and review, 595
stakeholder engagement, 228-229
standardized curriculum, in ESL teaching, 627, 641
StaR (School Technology & Readiness) charts, 226-227
storyboarding, in digital video production, 253
storytelling, relationship to blogging, 344-345
streaming video, in teaching ESL, 632-634
structured knowledge, 557, 576
STS (Science, Technology and Society) concept, 62-63
student assessment vs. instructional evaluation, 522
student-centered learning, 358, 360-361
student feedback, 204-211, 389-390
student investigations, guiding of, 66-67
student learning, improvement of, 66-67
student motivation, 80-81
student performance and preference, in mathematics instruction, 400-402
student safety, in DV use, 264-265
student satisfaction, in math curriculum integration, 403
studying, active and interactive, 375
subscales of tablet PCs, 412, 418
summative stance, 228-229
sustainability, 239
synchronous communication tools, 363
Synchronous Distance Learning (SDL), 373-388
benefits of, 377-378
challenges and issues of, 378
suggestions for implementation, 380-381
teacher-student interaction in, 379-380
systematic innovation in schools, 235-243
systematic instructional design, 520-521
T
tablet PCs, 411-416
battery life, 416
training, 414-416
tacit knowledge, 557, 574-576
TAFE (Technical and Further Education), 124
tasks, artificial, 79
teacher attitudes, 611
teacher flexibility, 191
teacher knowledge of computers, 627-628
teacher learning, 22
teacher preparation, 524-525, 610-611
teacher-student interaction, in SDL, 379-380
teachers
constraints for, 627-629
professional development of, 28-29, 595
teaching
constructivist, 426
individualized, 5
localized and globalized, 5-6
paradigm shift in, 4-7
triplied, 5-7
teaching and learning initiative, 610-611
teaching, new vision of, 6
Technical and Further Education (TAFE), 124
technical problems, in e-learning, 387
technological age, changing needs of, 48
technological culture, 35
technological factors, in teaching ESL, 629
technological literacy, 41-43, 48-49, 94-113, 322
case study in, 50-51
in knowledge management, 574-576
laptops and, 271-272, 277
reconstruction of, 65-67
and responsible technologies, 137-138
rise of, 61-62
standards, 43-47
Technological Literacy Challenge, 38-39
Index of Key Terms

 technological literacy education, 61-66
 technology
    in classroom, 272, 426-434
    computer, 453
    educational, 97, 218, 221, 516-517
    effective use of, 235
    financial issues in use of, 629
    interaction through, in ESL, 640
    learning-in and learning-through, 204-206
    media, 453, 459-460, 464, 472
    role of, in CoP framework, 579-581
    wireless, 287, 289, 302, 309
    technology development, teaching of, 456-458
    technology education, 48-50
    technology-enhanced environment, learning in, 99-101
    technology integration
       communication in, 278-279
       effective and meaningful, 323-324
       models for, 373
    technology literacy. see technological literacy
    technology standards integration, in teaching ESL, 627
    technology tools, 252
    teens. see adolescents
    text-based/alphabetic literacy, 220
    textbooks, digitization of, 414
    textualities, challenging existing, 201-202
    themes, from laptop studies, 276
    thinking
       critical, 10, 95, 278-279, 458-464
       higher-order, 79, 86-90
       low-level, 76-77
    time constraints, in teaching ESL, 629
    tips for ESL teachers, 640-641
    tool literacy, 221
    traditional literacies, 532-533
    traditional site-bounded paradigm, 2-5
    training, in tablet PC use, 414-416
    trans-national firms, 57
    transfer of learning, 360
    transformation, in learning/teaching cycle, 486
    transformative pedagogy, 453
    transmissionist approach to teaching, 323
    tree logging, 484
    triplization in education, 2-17
    triplization paradigm of education, 2-17
    triplized learning, 8
    triplized teaching, new paradigm of, 5-7
    true network enterprises, 57
    truth, in approaches to knowledge management, 576
    tutors/tutees, of school computers, 272

    U
    ubiquitous computing. see portable computing

    V
    value of information, 606
    verbal literacy, 343
    VHS platform, 256-258
    video and sound production editing programs, 278
    video editing software, 261
    video equipment, 247-266
    video inputs and outputs, 260
    video, role in digital literacy, 287-298
    videotaping, 247
    viewscreen, in video camera use, 259
    virtual laboratory, 383
    virtual learning communities, 364
    virtual learning environment (VLE), 494, 588-589
    visual literacy, 322, 338, 344, 353, 387, 605
    visualization, 383, 384, 620

    W
    Web and multimedia program authoring programs, 278
    Web-based learning, 4, 5, 9-10
    Web-enabled technologies, 587
    Web inquiry projects (WIPs), 333
    Web-mounted materials and experiences, 202
    Web page, for electronic portfolio, 444-446
    Web site evaluation, 386
    Web sites, use in teaching, 373-376
    Web surfing, problems of in e-learning, 386
    WebCT, 589
    Weblog. see blogs
    WebQuest, 86, 107-110, 326-334
    WebQuest model, 369
    whisper, in internet chat, 170
    WIPs (Web inquiry projects), 333
    wireless devices, privacy issues with, 318
    wireless infrastructure, 416
    wireless networks, 309-314
    wireless technology, 287, 289, 302, 309
    Wisconsin RT Project, 140-147
    word processing, 79-82, 140-147, 277
    WordSmith, 291
    work samples, in electronic portfolios, 444-445
    workers, informal, 59-60
    working poor, 59
    workplace competencies, 50
    writing, 471-472, 532-534
    writing ability, limitations in e-learning, 471-472
    WWW (World Wide Web) as research tool, 104-106

    Y
    youth and the risk society, 163-164
    “youth problem”, 159
Index of Key Terms

Z
zoom, in video camera use, 259