

Index

Symbols

1:1 (one-to-one) computing, definition 285
 15-minute rule 789
 24/7, definition 619
 24/7 616
 2-D animations 568
 2-D multimedia visualization courseware 573
 2-D virtual environment 569
 2-D virtual worlds 569
 3-D graphics card 879
 3D reference, definition 797
 3-D reference 794
 3-D software 810
 3-D sound card 879
 4MAT Method 216
 6-D tracker 879
 802.11i 920

A

absolute reference, definition 797
 abstract or the perceptive world (AW) 104
 academic adjustment strategy 86
 academic advising, online 641
 academic advising 641
 academic performance 705
 Academic Standards for Mathematics 863
 acceleration, downward 571
 acceleration, upward 571
 acceleration 571
 Access 186
 access and motivation 906
 access controls 919
 access points, definition 988
 Accessibility Wizard 266
 accountability, for all students including disabilities 636
 accountability 634
 achievement testing 855

ACID (atomicity, consistency, isolation, durability) 188
 ACID compliant transaction 188
 acquisition techniques 491
 action interpreter module 134
 action-buffer memory (ABM) 627
 active differentiated learning 216
 active engagement 2
 active learning, and technology 153
 active learning, computerized feedback intervention 2
 active learning, definition 7
 active learning, implementation for teaching 1
 active learning, multimedia 4
 active learning, techniques for implementing 2
 active learning, visualization 4
 active learning 1, 5
 active learning 567, 803
 active learning online 10, 12
 activity, basic structure of 17
 activity system of technology integration 19
 activity theory, benefits of 18
 activity theory, context 18
 activity theory, development 19
 activity theory, mediation 18
 activity theory, overview 16
 activity theory, principles of 18
 activity theory 14
 activity theory for study of technology integration 17
 actual presentation of content 354
 actuality 882
 acute health problems 810
 AD/HD 809, 810
 adaptability 324
 adaptation 713
 adapted keyboard 60
 adapted workstation 60
 adaptive hypermedia (AH) 783
 adaptive technology (AT), definition 62
 adaptive technology (AT) 56

- address resolution 326
- ADL, challenges and issues 817
- ADL over SDL, benefits of 817
- Adobe Acrobat 225
- Adobe InDesign 209
- Adobe Photoshop 357
- adult learners 254
- adult learning theory 101
- Advanced Distributed Learning (ADL) initiative 519
- Advanced Research Projects Agency (ARPA) 259
- advertising revenue model 260
- adware 799
- aesthetic divide 740
- affective 937
- affiliate revenue model 261
- African-American women 648
- age of calm technology 279
- Agent for Distance Education, Light Edition (ADELE) 766
- agent system 324
- agent systems, types of 324
- agent technology, exploiting 323
- agent technology 323, 324
- agent-based approach 323
- agent-based architecture construction 325
- agent-based infrastructure 325
- agent-oriented design 323
- aids, pointing and typing 58
- air resistance 571
- airtime fragmentation 890
- alcohol 618
- alerting systems 810
- algorithm, definition 207
- alienation 818
- alignment 210
- Alliance for Technology Access (ATA) 59
- Alliance for Telecommunications Industry Solutions (ATIS) Committee T1A1 918
- alternative keyboard 58
- American Association for the Advancement of Science (AAAS) 354
- American Association on Mental Retardation's (AAMR) 809
- American Library Association (ALA) 957
- American Library Association Council 57
- American Psychiatric Association 809
- American Psychological Association (APA) 959
- American Psychological Association's (APA) 382
- Americans with Disabilities Act (ADA) of 1990 60
- America's Digital Schools (ADS) 279
- Amstrad's PenPad 37
- analysis, design, development, implementation, and evaluation (ADDIE) 471
- analysis 240
- analysis and implementation 439
- analytic network process (ANP) 194
- analytical hierarchy process (AHP), definition 196
- analytical hierarchy process (AHP) 194
- analytical intelligence 216
- anchored instruction 809
- andragogical principles 254
- andragogy, and culture 32
- andragogy 30
- andragogy and today's technology 33
- animation, definition 7
- animation 5, 235
- Anti-Phishing Working Group (APWG) 118
- anti-virus software 120
- AOL/AIM 643
- APEC Cyber Academy 44D46
- Apple][793
- Apple iPod 644
- Apple Newton 37
- Apple Pages 210
- application 239
- applied approach to learning 308
- applied reasoning 889
- architecture patterns 784
- archives, definition 92
- archives 88
- arithmetic-logic unit (ALU) 108
- ARS, adoption of 889
- ARS, further research 890
- ARS keypad 890
- artifact development 199
- artificial intelligence 567, 877
- artificial intelligence (AI) 148, 168
- artificial intelligence in education systems (AIED) 782
- artificial sequentiality 324
- Asperger's Disorder 809
- ASCII values 796
- assessment, definition 861
- assessment 529
- assessment model 132
- assessment modeling, requirements for 133
- assessment modeling 134
- assessment modeling 875
- assessment of performance 354
- assistive listening devices 60
- assistive technologies 809

Index

- assistive technology, definition 813
 - assistive technology, applications 57
 - assistive technology, challenging questions 58
 - assistive technology, devices 57
 - assistive technology, inclusion 57
 - assistive technology, resources 57
 - assistive technology 56
 - assistive technology 808
 - assistive technology (AT) 56
 - Assistive Technology Act (ATA) 56
 - Assistive Technology Act of 1998 808
 - assistive technology for individuals with disabilities 56
 - Assistive Technology for People with Mental Retardation 59
 - asynchronous chats 15
 - asynchronous classes, definition 166
 - asynchronous classes 163
 - asynchronous collaboration 63
 - asynchronous communication, definition 669, 892
 - asynchronous communication 620, 664
 - asynchronous computer-based instruction 648
 - asynchronous discussions 664
 - asynchronous distance learning, benefits of 816
 - asynchronous distance learning (ADL), definition 815, 821
 - asynchronous distance learning (ADL) 820
 - asynchronous distant course 818
 - asynchronous Internet communication 678
 - asynchronous learning environments 815
 - asynchronous learning space 888
 - asynchronous online discussions, advantages 666
 - asynchronous online discussions, disadvantages 666
 - asynchronous platforms 163
 - asynchronous transfer mode (ATM) 973
 - AT products 58
 - AT research 60
 - AT training sessions 58
 - AT Web sites for students with disabilities 59
 - atomicity 188
 - attention blocking 890
 - attention deficit disorder 618
 - attitude, definition 763
 - auctions 260
 - audience response software 891
 - audience response system (ARS) 889
 - audience response systems 888
 - audience response systems (ARS), definition 893
 - audio conferencing 888
 - audioblog, definition 92
 - augmentative communication 60
 - Australian Capital Territory (ACT) project 22
 - Ausubel, David 112
 - authentic activities 680
 - authentic assessments 936
 - authentic learning 217
 - authentic learning environment, and technology 154
 - authentic learning environments 617
 - authentic tasks 2
 - authentication 120
 - authorized users 118
 - autism 809
 - autism spectrum disorder 809
 - automated information systems security 918
 - automatic feedback 3
 - automatic transformation procedure 325
 - autonomy 324
 - AvantGo 849
- ## B
- B2B e-commerce 260
 - B2B specialists 260
 - B2C e-commerce 260
 - baby boomers 418, 616
 - Banks's instructional strategy, four levels of 602
 - barriers 419
 - basic knowledge background 705
 - basic technology competencies 772
 - behaviorism 80
 - behaviorist learning 582
 - bended learning, benefits of 86
 - best desktop publishing software 210
 - best practice, definition 866
 - bibliography 957
 - bipolar disorder 810
 - BlackBerries 275, 918
 - Blackberry 278
 - Blackboard 477
 - blended learning, forms of 86
 - blended learning 85
 - blindness 811
 - blog, advisor's 644
 - blog, definition 92
 - blog 611, 951
 - blog commentaries 90
 - blog content 91
 - blog management systems 953
 - blog neighborhoods 88
 - blog programming 88
 - blog sites, educational 90
 - blog sites, political 90
 - blog software 88

- blog traffic 89
 - blog tribes 88
 - blog watch sites 90
 - blogger 952
 - blogging application 953
 - blogging directories 89
 - blogging search engines 89
 - blogging software 88
 - blogging-related peripheral tools 88
 - blogosphere, definition 92
 - blogosphere 88
 - blogroll, definition 92
 - blogroll 953
 - blogrolls 88, 89, 90
 - blogs, basic 89
 - blogs, commercial 89
 - blogs, credibility 90
 - blogs, filter 89
 - blogs, political 89
 - blogs 679
 - blogs 88
 - blog-wars 90
 - Bloom's Taxonomy 239, 444, 839
 - Bloom's Taxonomy of the Cognitive Domain 635
 - Bluetooth 979
 - Bluetooth cards 848
 - Boardmaker 810
 - boards 192
 - bodily-kinesthetic intelligence 609
 - books on tape 809
 - border gateway protocol version 4 (BGP4) 977
 - bottom-up strategy 325
 - Braille note takers 60
 - branching literacy 228
 - brick and cyber models 165
 - brick and cyber schools, definition 166
 - brick and mortar school 163
 - brick and mortar schools, definition 166
 - Bricklin, Dan 793
 - Bricklin/Frankston concept 793
 - Broadband, definition 988
 - Bruner's three-form theory 113
 - bulletin board services (BBS) 620
 - bulletins 192
 - bus (B) 108
 - business analytics (BA), definition 202
 - business analytics (BAs) 200
 - business intelligence (BI), definition 184, 202
 - business intelligence (BI) 182, 200
 - business performance management (BPM) 182
 - Business Process Management Initiative (BPMI) 754
 - business process modelling notation (BPMN) 754
 - business school curriculum 437
 - business-to-business (B2B), definition 264
 - business-to-business (B2B) 259, 921
 - business-to-business (B2B) e-commerce 260
 - business-to-business-to-consumer (B2B2C) 261
 - business-to-consumer (B2C), definition 264
 - business-to-consumer (B2C) 259, 921
 - business-to-consumer (B2C) e-commerce 260
- ## C
- C++ computer language 518
 - Cable Act 489
 - Cache in Trash Out (CITO) program 270
 - caches, public 270
 - caches 269
 - CAL, definition 573, 880
 - CAL applications 874
 - CAL multimedia learning applications 877
 - CAL packages, conventional 874
 - CAL tutoring packages 874
 - calculator, definition 866
 - calm computing, definition 887
 - calm technology, definition 887
 - calm technology, use of 882
 - calm technology, definition 285
 - calm technology 279, 882, 883
 - calm technology environments 284
 - calm technology era 283
 - camera cards 848
 - captcha, definition 92
 - captioning 58
 - Cardiac Surgery Reporting System (CSRS) 587
 - career growth portfolio 223
 - CargoProf 192
 - carrier sense multiple access/collision detection (CSMA/CD) 552
 - CART 203
 - CASA 323
 - cascading style sheets (CSS) 779
 - case-based learning, definition 315
 - CAT5 Ethernet outlet 919
 - CBA 131
 - CC Lab Software 216
 - cell, definition 797
 - cell 794
 - cell phone use 885
 - cell phones 881

Index

- cell phones for e-mail 881
- cell reference, definition 797
- Census 2000 56
- Center for Academic Integrity (CAI) 716
- Center for Electronic Studying 59
- CHAID Decision Tree Algorithms 203
- channel service unit/data service unit (CSU/DSU) 972
- character map button 134
- character map table 134
- charter advocacy centers 165
- charter school laws 163
- charter school movement 162
- charter schools, definition 166
- chat, ethical concerns of 96
- chat 93, 623
- chat room 611
- chatting 679
- chemical reaction model 325
- chemical reaction model (CRM) 323
- chemical reaction models, definition 330
- chemistry-inspired languages 323
- child, definition 548
- child nodes 187
- childhood memory 235
- Chi-Square Automatic Interaction Detector 203
- Chi-squared Automatic Interaction Detection (CHAID) 205
- choice team 199
- chronic health problems 810
- citizen-to-government (C2G) 262
- classification, definition 208
- Classification and Regression Trees (CART) 205
- classroom communication systems 889
- classroom discussion board 163
- classroom environment 890
- classroom performance system 889
- classroom teaching 571
- classroom without borders 100
- ClickLock 266
- client/server architecture 325
- client/server model, definition 330
- client/server model 324, 325
- clinical decision support software (CDSS) 193
- closed caption (CC) devices 810
- Closing The Gap 59
- cluster computing, definition 330
- coach-based assessment tool 137
- coach-based CBA tool 134
- coach-based engineering assessment tool 134
- coach-based tool, definition 137
- coach-based virtual discovery learning environments 569
- coach-based virtual environment 569
- COBOL programming language 185, 187
- cochlear implants 886
- CODASYL 185
- CODASYL group 185
- Codd, E. F. 186
- cognitive 937
- cognitive development, four stages of 713
- cognitive flexibility theory 113
- cognitive informatics (CI) 104, 627
- cognitive learning theories 419
- cognitive mapping 353
- Cognitive Models of Memory (CMM) 627
- cognitive processes 353
- cognitive psychology 575
- cognitive strategies 353
- cognitive styles 397, 526
- cognitive-developmental theory 713
- cognitivism 112
- Cognos 182
- Cold War defense projects 185
- collaboration, time and place dimensions 888
- collaboration 324, 365, 529, 888
- collaborative activities 888
- collaborative agent system architecture, definition 330
- collaborative agent system architecture (CASA) 323
- collaborative agents 324
- collaborative e-learning 840
- collaborative environment 310, 881
- collaborative learning, scripts for 745
- collaborative learning, technology support 888
- collaborative learning 582, 617, 680, 840, 888
- collaborative learning activity, and technology 154
- collaborative learning environment 309
- collaborative learning process 888
- collaborative networking 91
- collaborative paradigm 94
- collaborative software applications 881
- collaborative writing 890
- collective benefit of the group 621
- collective communications 326
- Colonel Parker 377
- Columbine shootings 616
- combinatorial search 326
- commercial blogs 89
- commercial computer-based assessment tools 132
- commercial information technology movement 197

- commercial software 327
- Common European Framework of Reference for Languages 67
- communication, purpose of 759
- communication boards 809
- communication tools 238, 280
- communication-driven DSS 197
- communications-driven software 192
- communities of practice 124
- community, learning 513, 514
- community, networked learning 514
- community 511
- community building 15
- community digital libraries 408
- Community podcasts 724
- community projects 882, 883
- community service projects 616
- community technology projects 881
- compact flash (CF) 848
- comprehension 239
- computational grid 324, 329
- computational powers 324
- computationally-oriented software 192
- computer aided design (CAD) 567
- computer assisted language learning (CALL) 63
- computer based training (CBT) 783
- computer coach-based assessment model 131
- computer cookies 919
- computer crime, definition 492
- computer crimes 488
- computer curriculum 323
- Computer Emergency Response Team (CERT) 919
- computer forensics, definition 492
- computer forensics, global scale 490
- computer forensics, investigating 487
- computer forensics, legality of 488
- computer forensics 487, 488, 490
- computer forensics investigations 487, 491
- computer forensics investigator, definition 492
- computer forensics law 490
- computer forensics tools 490
- computer fraud, altering input 119
- computer fraud, combating 118
- computer fraud, copying input 119
- computer fraud, definition 122
- computer fraud, identity theft 119
- computer fraud, phishing 119
- computer fraud, phishing 119
- computer fraud, software modifications 119
- computer fraud, theft of computer time 119
- computer fraud, types of 118
- computer fraud activities, definition 122
- Computer Fraud and Abuse Act, definition 123
- Computer Fraud and Abuse Act (CFAA) 120
- computer fraud protection 119
- computer innovations 808
- computer intelligence 879
- computer literacy training 15
- computer mediated communication (CMC) 63
- computer networking 323, 329
- computer optical mark reader 131
- computer programming 354
- computer security, definition 923
- computer security, teaching 921
- computer security, understanding 918
- computer security 918
- computer simulation 567
- computer software 809
- computer supported intentional learning environment (CSILE) 728
- computer tutoring system 875
- computer virus, definition 264
- computer-aided design (CAD) 567
- computer-aided learning (CAL) 131
- computer-aided learning (CAL) 567, 874
- computer-aided manufacture (CAM) 567
- computer-aided teaching 818
- computer-based assessment (CBA), definition 137
- computer-based assessment (CBA) 131, 137
- computer-based assessment tool 133
- computer-based automation, applications of 131
- computer-based education 15
- computer-based instruction 864
- computer-based learning environments 875
- computer-based system 198
- computer-based technologies 888
- computer-based testing 15
- computer-based tutorial system 879
- computer-based tutoring (CBT) 876
- computer-based tutoring package, intelligent 877
- computer-based tutoring package 875, 876
- computer-based tutoring tool 133
- computer-generated environment 878
- computerized feedback, definition 7
- computerized feedback intervention 1, 2
- computerized synchronous communication courses 815
- computerized tests 131
- computer-mediated communication (CMC), definition 669
- computer-mediated communication (CMC) 664, 672

Index

- computer-mediated courses 2
- computer-mediated learning 1
- computer-mediated video-enhanced activity 809
- computer-supported collaborative learning
 - applications 655
- computing 279
- computing systems 185
- Computing Tabulating Recording (CTR) Company 185
- concept formation 353
- concept learning program (CLP) 203
- concept mapping 229
- conceptual model 577
- concrete operational stage (seven to eleven years of age) 714
- concurrent programming 324
- concurrent version systems (CVS) 779
- conditioned responses 353
- conditions of learning, definition 356
- conditions of learning 353
- conduct disorder 810
- Conference on Data Systems Languages (CODASYL) 185
- conflicts in the Middle East 616
- Confucius 9, 914
- consistency 188
- constructivism, contextual 2
- constructivism, definition 7, 220
- constructivism, radical 2
- constructivism, social 2
- constructivism 1, 2, 311, 542
- constructivist approach, implementations for teaching 1
- constructivist approach, principles of 1
- constructivist learning 150, 217, 582
- constructivist learning environments 314, 414
- constructivist learning theory (CTL) 153, 700
- constructivist model of teaching 2
- constructivists 150
- consulting, definition 315
- consumer orientation 617
- Consumer Protection Against Spyware Act 801
- consumer-to-business (C2B) 921
- consumer-to-business-to-consumer (C2B2C) 261
- consumer-to-consumer (C2C), definition 264
- consumer-to-consumer (C2C) 259
- consumer-to-consumer (C2C) e-commerce 261
- content, actual presentation of 354
- content aggregators 260
- content schemes 139
- content understanding 354
- content-content 471
- context 18
- context marketing 883
- context sensitivity 849
- continuous assessment 132
- contrast 210
- control unit (CU) 108
- conventional (classroom) assessment 133
- conventional classroom teaching 820
- conventional computer tutoring tools 133
- conventional learning 818
- conventional lecture method 1
- cooperative learning, use of technology 729
- cooperative learning 2, 309, 728, 840
- cooperative learning theory 380
- coordinated studies model 513
- copying software 118
- copyright, definition 346
- copyright 340
- Copyright Act 341
- copyright laws, violating 345
- copyright permission, circumstances 345
- corporate espionage 118
- corporate fraud 119
- correlation assessment, definition 861
- correlation assessment 856
- cost modeling approach 920
- Council of Europe 67
- course design 238
- course management system (CMS) 678
- course material maintenance system 325
- courseware, definition 548, 573
- courseware material, definition 548
- coursewares 567
- cracking 120
- Craik, Kenneth 574
- creative ability 354
- Creative Commons 723
- creative funding efforts 281
- creative intelligence 216
- creative thinking 889
- criminal activity 118
- criterion referenced assessment, definition 861
- critical literacy, in today's schools 158
- critical literacy 157
- critical thinking 49
- critical thinking, and technology 154
- critical thinking skills 50
- cross-cutting relationships 889
- cultural bias 612

cultural historical activity theory (CHAT), definition 21
 cultural issues 681
 cultural literacy 270
 cumulative trauma disorders (CTS) 299
 curriculum, definition 356
 curriculum compacting 215
 Curry, Adam 721
 customer loyalty, definition 264
 customer relationship management (CRM) 692
 customerOs identification (CustID) 187
 cyber charter school environment 163
 cyber charter school innovation 162
 cyber charter school movement 162
 cyber charter schools, assessment 164
 cyber charter schools, benefits 162
 cyber charter schools, beyond virtual classroom 164
 cyber charter schools, controversy 162
 cyber charter schools, definition 166
 cyber charter schools, instruction 163
 cyber charter schools, societal controversy 163
 cyber charter schools 162, 811
 cyber charters 163
 cyber classroom snapshot 164
 cyber crime 488
 cyber schools, definition 813
 cyber-community builders 881
 cyber-designers 881
 cyberspace environments 616

D

D.A.R.E. 618
 dashboard, definition 92
 dashboards 306
 data gathering, definition 861
 data gathering 856
 data glove 879
 data integrity 188
 data management system 197
 data mining, definition 208
 data mining 167D172
 data mining software 173D178
 data model, flat file 186
 data model, hierarchical model 187
 data model, network model 187
 data model, relational model 187
 data packets 919
 data privacy 918
 data quality 169
 data representation 795
 data transmission modes, definition 988

data transmission throughputs, definition 988
 data warehouse (DW) 179, 692
 data warehouse lifecycle management (DWLM) 694
 data warehouse software 179
 data warehousing, benefits 180
 data warehousing, drawbacks 180
 data warehousing security 695
 data warehousing software (DWS) 179
 database, definition 186, 190
 database 197
 database administrator 188
 database in computing systems 185
 database management systems (DBMS) 185
 database models 186
 database skills 187
 database-like technologies 185
 data-driven DSS 197
 data-driven software 193
 daycare children 618
 DB2 Data Warehouse Edition 181
 deafness 810
 decay 170
 decision support (DS) 200
 decision support software (DSS), definition 196
 decision support software (DSS) 191
 decision support systems (DSSs), definition 202
 decision support systems (DSSs) 197, 303, 371, 692
 decision technologies 371
 decision tree, definition 208
 decision tree learning methods 203
 decision tree theory 203
 decision trees, applications 206
 decision trees 168, 203
 decision trees in data mining 205
 decision trees in risk management 206
 decision trees in supply risk management 206
 decision-making groups 371
 decision-making process 198, 203
 decision-making rules 134
 decreased classroom space demands 86
 deductive reasoning, definition 208
 deep learning 567
 delayed interaction 664
 delivery control 877
 democratization of the media 721
 depression 618
 design principles 210
 design science (DS) 198
 design team 199
 desktop computing 882

Index

- desktop file system 187
- desktop publishing 210
- desktop virtual reality (DVR) applications 879
- desktop virtual reality system 809
- development 19
- development 907
- developmental disorder 809
- devices for individuals with learning needs 58
- Dewey, John 533
- dialogue with others 1
- dialogue with the self 1
- dial-up bulletin boards 15
- differentiated instruction, definition 813
- differentiated instruction, ability levels 215
- differentiated instruction, authentic learning 217
- differentiated instruction, choices 217
- differentiated instruction, collaboration and communication skills 217
- differentiated instruction, definition 220
- differentiated instruction, learning styles 217
- differentiated instruction, organization 217
- differentiated instruction, privacy 217
- differentiated instruction, sensory learning 217
- differentiated instruction, technology to support 217
- differentiated instruction 215, 808
- differentiated learning 216
- digital age guidelines 342
- digital asset management (DAM) 225
- digital book 808
- digital business portfolios 221
- digital cameras 617, 865
- digital communications links, standards 972
- digital computers, development of 185
- digital computers 185
- digital crime 488
- digital data, admissibility of 489
- digital divide 163, 648, 738, 925
- digital documents 224
- digital frontier 235
- digital imagery, adult learners 357
- digital information age 449
- Digital Library for Earth System Education (DLESE) 409
- digital literacy 228
- digital media 617
- Digital Millennium Copyright Act (DMCA), definition 346
- Digital Millennium Copyright Act (DMCA) 342
- digital model for education 451
- digital natives 616
- digital photo story 235
- digital portfolio formats 224
- digital primary sources 441, 442
- digital projectors 414
- digital social networks 882
- digital stories, historical 236
- digital stories, personal 235
- digital stories, reflective 236
- digital stories, uses of 235
- digital stories 236
- digital story, definition 237
- digital story 237
- digital storytelling 235
- digital storytelling classroom 235
- digital storytelling in teacher education 235
- digital technologies 37, 235
- digital world 616
- digitized speech 58
- direct instruction 81
- direct neural pathways 886
- direct verbal feedback 875
- disability, definition 813
- Disability & Technology: A Resource Collection 59
- discovery learning, concept of 568
- discovery learning, definition 573
- discovery learning, users of 568
- discovery learning 567, 568,
- discovery learning environment 567, 568, 569
- discovery learning method 571
- discriminations 353
- discussion board 611, 678
- discussion board (online forum) 679
- discussion groups, definition 669
- disk storage per person (DSP) 167
- distance education, definition 821
- Distance education 243D246
- distance education 99, 238, 254, 648
- distance learning, definition 821
- distance learning, centralization 249
- distance learning, decentralization 249
- distance learning 85, 354, 374, 672, 815
- distance learning courses 2
- distance learning environments, asynchronous 1
- distance learning environments, synchronous 1
- distance learning environments 1, 815
- distance learning specialist 254, 255
- distance learning specialists, defining the role of 255
- distance learning system 819
- distance teaching 818
- distance technologies 85
- distance-based learning 493

- distance-learning educators 250
- distance-learning essentials 249
- distance-learning technologies 248, 249
- distributed data processing 324
- distributed GDSS (DGDSS) 372
- distributed group decision support systems (DGDSS), definition 376
- distributed laboratory, definition 330
- distributed learning system 323
- distributed networking system 324
- distributed system 323, 324
- diversity of application domains 170
- divisive partitioning of data orthogonal to the principal directions (PDDP) 827
- DNA evidence 488
- DNA forensics evidence testing 487
- document management system 193
- document type definition (DTD) 656
- document-driven DSS 197
- document-driven software 193
- domain, affective 904
- domain, cognitive 904
- domain, psychomotor 904
- domain knowledge 876
- domain knowledge representation 875
- domain knowledge tutoring strategies 133
- Doppler Radio 723
- downward acceleration 571
- Dragon Naturally Speaking 266
- DREAMMS for Kids, Inc. 59
- Dreamweaver 361
- DSS, basic ingredients of 197
- DSS, challenges of 194
- DSS, communication-driven 192
- DSS, components of 197
- DSS, data-driven 192
- DSS, decision support 200
- DSS, design methods 198
- DSS, design techniques 199
- DSS, document-driven 192
- DSS, future trends of 194
- DSS, knowledge-driven 192
- DSS, model-driven 192
- DSS, ways to enhance 199
- DSS design, design science approach 198
- DSS design, knowledge management approach 198
- DSS design, object-oriented approach 198
- DSS design, structure modeling approach 198
- DSS environment 199
- dual-coding theory 113
- Dunn and Dunn learning style model of instruction 706
- durability 188
- DVR, key attributes model 878
- DWS, representatives of 181
- Dynabook 37
- dysfunctional group behavior 310
- E
- Early Connections D Technology In Early Childhood Education 59
- early intervention services, definition 62
- Earth science 889
- ease of use 175
- EASI D Equal Access to Software and Information D K12 Connection 59
- EbscoHost 278
- e-commerce 259
- e-commerce attacks 921
- e-commerce transaction models 921
- economic agents 324
- e-crime 488
- education with new technologies (ENT) 515
- educational computer games 15
- educational games 413
- educational geotrekking 269
- educational hierarchy 323
- educational setting 621
- educational taxonomy 839
- educational technology 883, 928
- educational technology environments 881
- edutainment 617
- effectiveness 536
- efficiency 175
- e-government, five stages of 432
- e-instruction, evaluating software for 298
- elaboration theory 82
- e-learning, definition 21
- e-learning 15, 262, 678
- e-learning systems 323, 782
- electronic books 809
- electronic commerce, consumer concerns 262
- electronic commerce, future trends 262
- electronic commerce, hacker 262
- electronic commerce, security breach 262
- electronic commerce (e-commerce) 259
- Electronic Communicates Privacy Act 489
- electronic communications 567
- electronic community building 881
- electronic data 920
- electronic data interchange (EDI) 259

Index

- electronic evidence 489
- electronic instructional plan 151
- electronic journal 89
- electronic mail (e-mail) 620
- electronic meeting systems (EMS), definition 893
- electronic meeting systems (EMS) 192, 888, 890
- electronic performance support systems (EPSS) 413, 583
- electronic pointing devices 58
- electronic reading media, problems of 276
- electronic reading media 276, 278
- electronic spellers 809
- electronic text 52
- electronic textbook technology 275
- electronic textbooks, advantages 275
- electronic textbooks, cost and savings 276
- electronic textbooks 275, 278
- electronic textbooks and online resources in schools 276
- electronic voting systems 889
- Elementary and Secondary Education Act (ESEA) 634
- ELIZA 641
- Ely's conditions 334
- e-mail 192, 622, 678
- eMate 37
- embedded ubiquitous environment 279
- embezzlement 488
- E-Mentors 689
- emerging Web presence 433
- emoticons 163
- emotional/behavioral disabilities 810
- employee monitoring 921
- employee monitoring data 920
- employee training 121
- EMS, benefits of 890
- encryption 918
- encyclopedia, definition 548
- encyclopedia article, definition 548
- encyclopedia entry, definition 548
- encyclopedias, limitations of 543
- end user licensing agreement (EULA) 799
- energy (E) 104
- engineering materials tutorial 457
- engineering mechanics dynamics, definition 573
- engineering mechanics dynamics 567, 573
- engineering mechanics dynamics course 131
- engineering mechanics statics tutorial 459
- engineering visualization courseware 569
- enhanced Web presence 433
- Enhancing Education through Technology Act of 2001 864
- Enterprise Content Management Platform 182
- Enterprise resource planning (ERP) systems 436
- entertainment orientation 617
- entitlement 617
- entity relation diagram (ERD) 187
- e-portfolios 15
- equitable communication, definition 669
- ergonomics 286, 287, 288
- ergonomics in education 289
- Erikson, Erik 112
- erroneous code 327
- Essen learning model (ELM) 783
- Ethernet, definition 988
- Ethernet 554
- ethical hacker 921
- Euro e-pals 64
- European Commission's Information Society Technologies (IST) initiative 583
- EuroSCORE 592
- evaluation 199, 240
- evaluation methods 16
- EVE2 (essay verification engine) 718
- evidence handling, definition 492
- evolutionary theory 185
- Excel 793
- Excel tracking workbook 795
- exceptional learning needs 56
- executive information system (EIS) 191, 303, 692
- executive information systems (EIS), definition 196
- executive support systems (ESSs) 303
- experience-based learning, definition 315
- experience-based learning 308
- experiential learning 572
- expert choice 194
- expert system, four major activities 317
- expert system applications 318
- expert systems, advancements 320
- explanation 609
- exponential technological growth 886
- exposure to modern educational technologies 705
- extended day programs 616
- extensible HTML (XHTML) 779
- extensible markup language (XML) 775, 785
- extensible style sheet language transformations (XSLT) 656
- extract, transfer and load (ETL) tools 693
- extraction, transformation, and loading (ETL), definition 184
- extrinsic barriers 649

eyeglass-mounted reading-navigation systems 886

F

Facebook 643

face-to-face based courses 817

face-to-face communication, definition 893

face-to-face course teachers 1

face-to-face frontal teaching classes 817

face-to-face GDSS (FGDSS) 372

face-to-face group decision support systems (FGDSS), definition 376

face-to-face instruction 670

face-to-face interactions 618

face-to-face learning 85, 818

facilitating discussion groups, techniques in 239

fair use, definition 346

fair use, pitfalls 344

fair use 340

fair use and the digital age 340

fair use criteria, definition 346

fair use laws 340

fair use laws in education 341

Family Education Rights and Privacy Act (FERPA) 643

fast food services 616

FCC 721

featured articles (FAs) 544

Federal Bureau of Investigation 118

Federal Rules of Evidence, definition 492

Federal Rules of Evidence 488

Federal Trade Commission (FTC) 801

federated learning communities (FLC) model 513

feedback, definition 7

feedback, effect on performance 3

feedback (in an educational context), definition 7

feedback intervention 2

Feedburner, definition 92

Felder-Silverman learning style model 706, 709

field dependent learners 397

field independent learners 397

field trip 483

file encryption program 919

file sharing 617

file transfer protocol (FTP) 678, 952

financial intelligence 193

fingerprinting 488

firewall 120

firewall program 919

first-year seminars (FYS) 476

Flash 360

flash memory, definition 548

flat file, definition 190

flat file 186

flexibility 634

flexible grouping, definition 220

flexible grouping 217

flexible scheduling 86

flexible scheduling model 308

foci 673

forensic toxicology 487

forensics, definition 492

forensics 487

forensics evidence 487

forensics sciences 487

formal operations stage (eleven years of age and beyond) 714

formative assessment, definition 137

formative assessment 4, 132, 354

formula, definition 797

formulas 794

fragmented familial environments 618

frame-based programmed instruction 15

framework approach 784

Fransky, Bob 793

fraudulent financial reporting 118

freeware program 799

freshman interest groups (FIG) model 513

Freud, Sigmund 559

Froebel 609

Frontier Service Development Laboratory 883

fully integrated Web presence 433

function, definition 797

future learning environment (FLE3) 783

future technologies 882, 883

FX Palo Alto Laboratory 883

G

GA trees 204

Gagne, Robert 353, 356

Gagne's conditions of learning 114

Gagne's learning theory 355

Gagne's nine events of instruction 353, 354

Gagne's sequence of learning 355

Gamma language 324

Gamma languages, definition 330

Garageband 723

Gardner 609, 610

Gardner's Theory of Multiple Intelligences 215

GDP value 186

GDSSs, facilitating meetings 374

GDSSs, future trends 374

GDSSs, in the real world 373

Index

- GDSSs, political events 374
 - GDSSs, recent research findings 372
 - GDSSs, strengths 371
 - GDSSs, weaknesses 371
 - GE environment 272
 - GE geocaches 272
 - GE geotrek, definition 274
 - General Electric 185
 - generalized anxiety disorder 810
 - Generation Xers 616
 - Generation Y 616
 - Generative Learning Model 357, 358, 362
 - genetic algorithm trees (GA trees) 204
 - genetic algorithms 168, 204
 - genre 759
 - genres of organizational communication, definition 763
 - geocache, definition 274
 - geocachers 270
 - geocaches, virtual 270
 - geocaching, definition 274
 - geocaching 269, 270
 - geocaching community 269
 - geocaching.com community 270
 - geographic positioning systems (GPS) 189
 - geographical information systems (GIS) 693
 - geographical literacy 270
 - geotrek, definition 274
 - geotrekking, educational 269
 - geotrekking, nature of 269
 - geotrekking 269, 270
 - geotrekking activities 271
 - geotrekking activity 270
 - geotrekking challenges 272
 - geotrekking.net 269
 - geotreks, GE 272
 - geotreks, portable 271
 - geotreks, transforming 273
 - geotreks, types of 269
 - geotreks 271
 - Gigabit Ethernet 555, 556
 - Glatt Plagiarism Services (GPSD) 718
 - global education community 99
 - global learning systems (GLS) 850
 - global positioning system (GPS), definition 274
 - global positioning system (GPS) 269, 811, 847
 - global positioning system (GPS) cards 848
 - Global Schoolhouse 537
 - globalism 616
 - Google 515, 793
 - Google Earth^a (GE) 272
 - Google Earth^a (GE) geotreks 271
 - government intrusion 617
 - government-to-business (G2B) 262
 - government-to-citizen (G2C) 262
 - GPS, definition 274
 - GPS (global positioning system) 269
 - GPS devices 269, 271
 - GPS tracking devices 885
 - GPS units 272
 - GPS-based geographical locations 271
 - graphic design 210
 - graphical information systems (GIS) 189
 - graphical representation of numbers 795
 - graphics-based environment 808
 - gravity, absence of 570
 - gravity 570
 - gravity pull 570
 - gravity switch 570
 - grid 324
 - grid computing, definition 330
 - grid computing 324
 - grid construction 325
 - grid services 325
 - grid system 324
 - GRiDPaD 37
 - group collaboration, impact of new technologies on 367
 - group collaboration 366, 652
 - group decision support software (GDSS) 191
 - group decision support systems (GDSS), definition 196, 371, 376
 - group management 326
 - group polarization, definition 376
 - group problem-solving 309
 - group support systems (GSS), definition 376
 - group support systems (GSSs) 371
 - group think 617
 - groups 372
 - guidance 354
- ## H
- hacker, definition 264
 - hacking 120, 921
 - handheld calculators 793
 - hands-free mouse 811
 - hands-on activities 308
 - head mounted display (HMD) 878
 - health monitoring 885
 - hearing aid 810
 - hearing aides 60
 - hearing impairment 56, 810

- Herman brain dominance instrument (HBDI) 706
 - heterogeneous agents 324
 - hierarchical data model, definition 190
 - hierarchical model 187
 - Hierarchical Neural Cluster (HNC) model 627
 - hierarchy of needs 560
 - higher learning institutions 131
 - higher order learning skills 314
 - Higher Speed Study Group [HSSG]) 556
 - high-speed Internet access 279
 - high-tech crime 488
 - hijacking, definition 264
 - hijacking 262
 - hint button 135
 - Hirumi's framework 672
 - historical digital stories 236
 - Hollerith, Herman 185
 - Hollerith Tabulation company 185
 - Hollerith's mechanical tabulators 185
 - home computer security 919
 - home computing environment 919
 - homeostasis 2
 - home-schooling 162
 - Honey and Mumford learning styles evaluation 706
 - Honey and Mumford's learning style questionnaire 708
 - horizontal velocity 571
 - hot-spots 919
 - HTML 189
 - human activity 16
 - human capital 193
 - human engineering 175
 - human interaction 670
 - human resource procedures 759
 - human-computer interaction 574
 - human-computer interfaces (HCI) 43
 - human-computer technological designs 882
 - humanism 377
 - human-machine interaction 574
 - Hummingbird 182
 - Hummingbird Enterprise 2005 182
 - Hurricane Katrina 616
 - hybrid decision tree (HDT) 205
 - hybrids 85
 - hyperactivity 618
 - Hyperion 182
 - Hyperion MDM 182
 - Hyperion System 9 Master Data Management 182
 - hyperlinks 52
 - hypertext markup language (HTML) 359, 778, 951
 - hypertextual reference 278
- ## I
- IBM 181
 - IBM PC 793
 - ICT 14
 - ICT-mediated classrooms 15
 - ID3 tags 722
 - IDEALS acronym 51
 - identify theft, definition 123, 923
 - identity theft 119
 - IEEE (Institute of Electrical and Electronics Engineers) 988
 - IEEE 802.11 Wireless Standard, definition 988
 - IEP process 59
 - ILS software 864
 - IM buddy 881
 - immediate interaction 664
 - immersive learning environment 383
 - immersive learning theories and environments (ILE) 386
 - immersive reality system 809
 - improper posture 286
 - improved learning outcomes 665
 - impulsive problem-solving behaviors 310
 - incident reporting, decline of 118
 - inclusive education system 57
 - increased 21st century literacy skills 86
 - in-depth problem-solving skills 309
 - index of learning styles (ILS) 709
 - indicator key 819
 - Individual Education Plan (IEP) 56, 790, 808
 - Individualized Education Plans (IEP), definition 814
 - individualized learning 217
 - individuals with disabilities 56
 - Individuals with Disabilities Education Act (IDEA), definition 813
 - Individuals with Disabilities Education Act (IDEA) 56, 266, 808
 - individuals with learning needs 58
 - inductive logic, definition 208
 - industrial arts 400
 - industrial technology pedagogy, key skills 401
 - industrial technology pedagogy 400–402
 - inertia 571
 - Inference Engine (IE) 108
 - informal and lifelong 582
 - informatics 104
 - information (I) 104
 - information agents 324

Index

- information and communication technologies (ICT)
 - 14, 22, 56, 232, 427, 469, 476, 525, 655, 751, 758, 904
- information and communication technology,
 - definition 763
- information assurance 918
- information communication technology (ICT), in education 904
- information exchange 313, 906
- information gathering 875
- information literacy 228, 406
- information literacy skills 408
- information literacy, meaning of 406
- information management system (IMS) 185
- information overload, definition 669
- information overload 667
- information processing 311, 353
- information security education 921
- information sharing 91, 329
- information systems (IS) curriculum model 436
- information systems curriculum, definition 923
- information technologies (IT) 56, 138, 243, 308, 323, 432, 487, 759, 775
- information technology (IT) systems 320
- information technology and/or information systems (IT/IS) 867
- information technology-based environments 371
- Information-Matter-Energy (IME) model 104, 630
- information-system (IS) assets 918
- initial job inquiry portfolio 222
- innovation, dimensions of change 414
- innovation, form 414
- innovation, intentionality 415
- innovation, scale of 414
- innovation, sequence 415
- innovative theories 413
- input/output (I/O) devices 108
- inquiry, definition 237
- inquiry 237
- inquiry-based learning method 568
- Inspiration 216
- instant banking 616
- instant messaging 616, 620, 881
- instant messenger (IM) 30, 643
- instantaneous responses 616
- Institute of Electrical and Electronics Engineers (IEEE) 550
- institutionalized funding 281
- instruction, nine events of 353
- instructional design, and cognitive learning 418
- instructional design, definition 356
- instructional design 353
- instructional evaluation 297
- instructional level 949
- instructional multimedia 455
- instructional planning 354
- instructional principles 964
- instructional settings 469
- instructional technology 56, 288, 332, 354, 518, 808, 949
- integrated data store (IDS) 185
- integrated data warehouse, definition 184
- integrated learning systems, definition 866
- integrated learning systems (ILS) 864
- integrated programming environment 327
- integrated services digital network (ISDN) 471
- integration of technology 281
- Intel Corporation 883
- intellectual functioning 809
- intellectual property, in education 450
- intellectual property 449
- intellectual property patents 312
- intellectual skills 353
- intelligence team 199
- intelligent computer-based tutoring package 877
- intelligent information processing technologies 324
- intelligent tutoring systems (ITS) 764, 782, 783, 875
- interaction, three categories of 505
- interaction, six core types of 470
- interaction 238
- interactive animations 1
- interactive computer-based system 191
- interactive learning 891
- interactive learning environment (ILE) 823
- interactive lesson, creating 463
- interactive lesson, defined 463
- interactive lesson, four features 464
- interactive lesson, using PowerPoint 464
- interactive multimedia CAL 875
- interactive multimedia courseware 455, 567
- interactive multimedia learning 567
- interactive relationships 671
- interactive technologies 617
- interactive training 891
- interactive videoconferencing (IVC) 469
- interactive videos 192
- interactive Web presence 433
- interactivity 877, 878
- intercultural language learning 63
- interface, definition 202
- interface agents 324

interface of functional units 325
 International Business Machines (IBM) 185
 International Electrical and Electronics Engineers
 (IEEE) Association 979
 International Society for Technology in Education
 (ISTE) 493
 Internet, original design 249
 Internet 248, 292, 413, 620
 Internet citizenship 480D482
 Internet communication technologies 99
 Internet connection 817
 Internet connectivity 885
 Internet corporate purchasing 260
 Internet field trip 483
 Internet forensics, definition 492
 Internet forensics investigations 490
 Internet misuse 921
 Internet protocol (IP) 243, 552
 Internet protocol version 6 (IPv6) 552
 Internet relay chat (IRC) 620
 Internet technologies 620
 Internet-based DSS 199
 Internet-based technologies, and learning 22
 Internet-connected wireless computing device 279
 interoperability 169
 interpersonal environment 280
 interpersonal intelligence 609
 interteaching 72, 74
 intervention workflow 219
 interview presentation portfolio 223
 intimate socio-cultural design constructs 885
 intrapersonal intelligence 609
 intrinsic barriers 650
 intrinsic feedback 2
 IP masquerading 326
 iPods 275
 IPv4 552
 Iraq 616
 ISABEL 193
 isolation 188
 ISPN (integrated services packet network) lines 243
 IT consulting education 308
 IT professional leadership 493
 IT tools and techniques 432
 iTunes 723

J

JaBIT (Java-based intelligent tutoring) 784
 JApplet program 71
 Java 71
 Java-based user interface 325

JITAP learning, definition 274
 joysticks 58
 just in time inventory (JIT) 176
 just-in-time-and-place (JITAP) learning, definition
 274
 just-in-time-and-place (JITAP) resources 271

K

K-12 classroom 235
 K-12 learning environment 518, 520
 K-12 sector distance e-learning 15
 Kapp, Alexander 30
 K-A-RPE model, application level 497
 K-A-RPE model, definition 497
 K-A-RPE model, evaluation level 497
 K-A-RPE model, knowledge level 497
 K-A-RPE model, practice level 497
 K-A-RPE model, research level 497
 K-A-RPE model 493, 497
 Kasper laser-guided device 811
 keyboard additions 58
 keyboard instruction, suggested age 499
 keyboarding, how to teach 499
 keyboarding, who should teach 499
 keyboarding 498
 keyboarding skills 499
 keypad, definition 893
 Kid Pix™ 216
 Kidspiration™ 216
 killer app 793
 k-means 828
 knowledge, application, and research, practice and
 evaluation (K-A-RPE) 494
 knowledge 239, 324
 knowledge acquisition 5
 knowledge base 875
 knowledge construction 907
 knowledge discovery in databases (KDD) 147
 knowledge engine 197
 knowledge management, definition 202
 knowledge management (KM) 198
 knowledge management system (KMS) 200
 knowledge representation 875, 876
 knowledge retention 309
 knowledge warehouses (KW) 199
 knowledge-driven DSS 197
 knowledge-driven software 193
 Knowles, Malcolm 30
 Kolb's learning style model 706

Index

L

- lab design 325
- lab platform, main window 326
- label edge routers (LER) 974
- label switch routers (LSR) 975
- LAN configuration 326
- laptop, definition 548
- laptops, learning with 541
- laptops 275, 541, 918
- large-scale dynamic systems 324
- Lat/Lon location 269
- latchkey kids 618
- latitude/longitude (Lat/Lon) coordinates 269
- Layered Reference Model of the Brain (LRMB) 630
- LD Resources 59
- learn-by-discovery 569
- learned helplessness 3
- learner-centered environments 413
- learner-content 470
- learner-instructor 470
- learner-learner 470
- learning, student attributes affecting 705
- learning, applied approach 308
- learning, flexibility 250
- learning, taxonomies of 353
- learning 9, 936
- learning activities model (LAM), fifth category 506
- learning activities model (LAM), first category 504
- learning activities model (LAM), fourth category 506
- learning activities model (LAM), second category 504
- learning activities model (LAM), third category 506
- learning activities model (LAM) 503, 504
- learning and assessment portfolio 222
- learning and cognition 772
- learning clusters model 512
- learning context 16
- learning contracts, definition 220
- learning contracts 216
- learning design approach 784
- learning disabilities, definition 62
- learning disabilities 56
- learning disability 809
- learning disabled (LD) 443
- learning environment 567, 808
- learning environment design models 282
- learning environment of higher learning institutions 567
- learning environments, asynchronous 815
- learning environments, synchronous 815
- learning environments 4, 354, 567, 885
- learning experience 309
- learning guidance 354
- learning hierarchy, definition 356
- learning intervention 217
- learning log 921
- learning log approach 921
- learning management systems (LMS) 503, 519, 783, 817
- learning motivation 280
- learning needs 283, 419
- learning object based instruction (LOBI) 518
- learning objects (LOs) 518
- learning process, definition 356
- learning process, Gagne five domains of 348
- learning process 888
- learning profile 215
- learning profiles 216
- learning requirements 567
- learning scenarios 875
- learning style, definition 220, 880
- learning style 216, 705
- learning style inventory (LSI) 706
- learning styles, and ICT 528
- learning styles, definition 573
- learning styles, three 244
- learning styles 283, 567
- learning styles questionnaire (LSQ) 707
- learning technologies, impact of 390
- learning technologies, innovations 413
- learning technologies, intangible impact of 391
- learning technologies, tangible impact 390
- learning technologies 413, 833
- learning technology system architecture (LTSA) 782, 784, 785
- learning theories, essential components of 348
- learning theories 347Ð349, 353
- learning-by-doing approach 569
- least restrictive environment (LRE) 808, 814
- lecture-driven classroom 309
- legislation 919
- levels of collaboration 841
- levels of knowledge 436
- Library of Congress (LOC) 441
- lifelong learning, definition 548
- lifelong learning 542, 888
- Likert scale 790
- limited access 279
- linguistic intelligence 609

- link state advertisements (LSA) 976
- linked courses model 512
- ListSrvs 643
- listservs or discussion/ mailing lists 620
- listservs or mailing lists 622
- literacy, cultural 270
- literacy, geographical 270
- literacy, mathematical 270
- literacy, scientific 270
- literacy, technological 270
- literacy divide 740
- Literacy Instruction Through Technology (LITT) 59
- local area network (LAN), definition 988
- local area network (LAN) 299
- local area networks (LAN) 550
- local area networks (LANs) 971
- location commerce (l-commerce) 261
- logical-mathematical intelligence 609
- logistics regression 168
- long-term memory (LTM) 627
- Lotus 1-2-3 spreadsheet 793
- lurkers, definition 669
- M**
- Mac OS X system 266
- machine learning, definition 208
- Macromedia Dreamweaver 357
- Macromedia Flash 357
- management decision systems 371
- management fraud 119
- management information and decision support system (MIDS) 303
- management information systems (MIS) 71
- manual data mining 146
- Marx, Karl 599
- Maslow, Abraham 559
- Maslow 9
- mastery learning 81
- mathematical expressions 794
- mathematical literacy 270
- mathematics 354, 863
- MATLAB 865
- matter (M) 104
- Mattessich model 793
- m-blogging 90
- McCarthy's 4MAT model 706
- measurement, definition 861
- mechanical engineering 571
- mechanics dynamics 567
- mechanics dynamics tool 570
- mechanics theory 571
- media 455
- media access control (MAC) 551
- mediation 18
- medical decision making 891
- medical technology 56, 808
- meditation 610
- meeting rooms 192
- memory based reasoning (MBR) 168
- mental mapping 811
- mental models, content of 575
- mental models 574, 575
- mental retardation 809
- mentorship 686
- Merrill's instructional transaction theory 114
- message boards 620
- meta data descriptions 785
- metalinguistic 609
- metatags 722
- metropolitan area networks (MAN) 556
- Mezirow, Jack 255, 913
- Mezirow's theory of transformative learning 913
- micro-computers 793
- Microsoft 181
- Microsoft Excel 794
- Microsoft Office Suite 186
- Microsoft Publisher 210
- Microsoft SQL 193
- Microsoft Windows 793
- Microsoft Word 209
- Middle East 616
- millennial, definition 619
- Millennials 616
- Mindtool 635
- minimum description length (MDL) 828
- M-learning (mobile learning) 580, 581
- mnemonic 609
- mobile agents 324
- mobile commerce (m-commerce), definition 264
- mobile commerce (m-commerce) 260, 261
- mobile devices 881
- mobile distance learning methods 724
- mobile education, definition 285
- mobile learning, definition 887
- mobile learning 282
- mobile phones 891
- mobile technologies, and new learning paradigms 582
- mobile technologies, definition 285
- mobile technologies 580
- mobile technology, use of 280
- mobile technology 39-40

Index

- mobility 324
- mobility impairment 56
- moblog, definition 92
- moblogging 90
- moblogs 90
- mock exams 132
- model, definition 196
- model integration, definition 196
- model management system 197
- model-driven DSS 197
- model-driven software 192
- model-oriented DSS 191
- modern computer technologies 323
- Modern Language Association (MLA) 959
- modifiability 175
- module language 325
- Montessori 609
- Moodle (modular object-oriented dynamic learning environment) 679
- Moore's theory of transactional distance 115
- MORTON 641
- motor skills 353
- mouse/switch options 60
- MP3 580
- MP3 file 722
- MP3 playback 881
- MP3 players 30
- MP4 580
- MPEG decoder chip set 488
- MSN 643
- multi protocol label switching (MPLS) 556
- multi-agent DSS for e-commerce (MADEC) 199
- multi-agent system 199, 325
- multi-agent system design 325
- multi-agent systems, design methodology 323
- multi-agent systems (MAS), definition 330
- multi-criteria group support systems (MCGSS), definition 376
- multicultural education, application of technology in 604
- multicultural instructional strategies 601
- multiculturalism 599, 617
- multimedia, definition 866
- multimedia, key attributes model 878
- multimedia, attributes of 456
- multimedia, definition 237
- multimedia 4, 226, 237, 413, 455
- multimedia 567, 611, 874, 877
- multimedia animation 572
- multimedia applications 877
- multimedia assisted learning applications 878
- multimedia driven environment 616
- multimedia interactive courseware 572
- multimedia programs 865
- multimedia resources 4
- multimedia technology 569, 571, 573
- multimedia tools 235
- multimedia-based learning coursewares 569
- multiple access unit (MAU) 554
- multiple disabilities 810
- multiple instructional methods 86
- multiple intelligence assessment 612
- multiple learning styles addressed 86
- multiple media 877
- multiple sensory modalities 4
- multiple-choice questions (MCQ) 890
- multi-protocol label switching (MPLS) 973
- multisensory learning, definition 62
- multi-tasking generation 616
- MURDER script 745
- musical intelligence 609
- mydropbox.com 718
- Myers-Briggs type indicator (MBTI) 706
- MySQL 186
- N
- naïve bayes (NB) 829
- nanotechnologies 882
- nanotechnology, definition 887
- National Aeronautics and Space Administration (NASA) 186
- National Assessment of Educational Progress 864
- National Centre for Technology in Education (NCTE) 980
- National Commission on Fraudulent Financial Reporting (NCFRR) 118
- National Council of Teachers of Mathematics (NCTM, 2000) 863
- National Dissemination Center for Children 809
- National Education Association (NEA) 493
- National Educational Technology Standards (NETS) 498
- National Forum on Information Literacy (NFIL) 957
- National Network of Digital Schools (NNDS) 217
- natural feedback processes 2
- natural world (NW) 104
- naturalist intelligence 609
- navigation 529
- NCLB Act 854
- NCLB legislation 854
- NCR 181

near field communications 885
 nearest neighbor method 168
 NED (NorthEast Decision model) 192
 negative feedback, definition 7
 negative feedback 3
 negative-feedback-loop of a control system 2
 Net Gen lifestyles 616
 net generation, definition 619
 Net Generation (Net Gens) 616
 net present value approach 920
 Netezza 182
 Netezza Performance Server (NPS) 182
 netiquette 612, 620
 network analysis 326
 network data model, definition 190
 network forensics investigation 491
 network model 187
 network-based learning 809
 networked computers 890
 networked learning communities (NLCs) 515
 networked objects 882
 networked-learning community 511
 networking technologies 248, 324
 network-to-network interface (NNI) 974
 neural implants 886
 neural informatics theories, applications of 630
 neural networks 168
 neurobehavioral disorder 809
 neurological condition 809
 neutral body positioning 288
 neutral point of view (NPOV) 543
 newsgroups 620, 623
 Newton's second law of motion 571
 NeXT computer 795
 next-hop label forwarding entry (NHLFE) 975
 NHS Direct 193
 nine events of instruction, definition 356
 nine events of instruction 353
 No Child Left Behind Act of 2001, definition 861
 No Child Left Behind Act of 2001(NCLB) 634,
 854, 928
 nonclassroom-based charters 163
 nondirective teaching theory 378
 norm referenced assessment, definition 862
 normalization, definition 190
 normalization 188
 notebooks 89
 novice teacher support project (NTPS) 689
 numerical analysis 567
 nursing informatics (NI) 423
 nursing theory-practice gap 424

O

object permanence 713
 object tests 938
 Object-Attribute-Relation (OAR) model 108, 627
 object-oriented (OO) 198
 obsessive compulsive disorder 810
 Occupational Safety and Health Association
 (OSHA) 286
 Odeo.com 721, 723
 OEPC, article titles 544
 OEPC, content 544
 OEPC, definition 548
 OEPC, top-level organization 544
 OEPC project, target children 543
 OEPC prototype, results 545
 OEPC prototype 544
 Office of Mentoring and Service Learning 687
 off-the-shelf software package 817
 'Google' generation 617
 'Just Say No Campaign' 618
 Oklahoma bombing 616
 OLPC, definition 548
 OLPC, viewpoint 543
 OLPC Project, contributions 544
 OLPC project 543
 One Encyclopedia Per Child (OEPC) 542
 One Laptop Per Child (OLPC) 542
 One Laptop Per Teacher (OLPT) 542
 one-dimensional kinematics equations 573
 one-dimensional motion 572
 one-to-many relationships 187
 one-to-one computing, definition 285
 one-to-one computing, goal-state 279
 one-to-one computing, origins 279
 one-to-one computing 279
 one-to-one ubiquitous computing 279
 one-way prerecorded video 648
 online analytic processing (OLAP) 189
 online analytical processing (OLAP), definition 184
 online analytical processing (OLAP) 692
 online analytical processing (OLAP) tools 693
 online assessments 164
 online auction, definition 264
 online banking 617
 online bulletin boards 88
 online chalkboards 163
 online charter schools 163
 online chat, collaborative nature of 94
 online classroom agents 701
 online collaboration 611

Index

- online collaborative software, definition 887
- online conferencing 679
- online curriculum 655D657
- online design, and behavioral theories 80
- online design, and cognitive theories 112
- online design, and humanistic theories 377
- online diaries 88
- online discussion, issues 674
- online discussion boards 665
- online discussion forum, definition 669
- online discussion groups 664
- online instruction 811
- online interaction 670, 671
- online interaction design 672
- online journal 88
- online learners 163
- online learning, five stages of 906
- online learning 85, 262, 678
- online learning community 95
- online learning environments 678
- online mentoring resources 688
- online purchasing 617
- online safety 895
- online services 260
- online social interaction 681
- online socialisation 906
- online stores 260
- online transaction processing (OLTP), definition 184
- online transaction processing (OLTP) 180, 693
- online wholesaling 260
- ÒNo Child Left BehindÓ 616
- on-screen commands 197
- onscreen keyboard 58
- open instructional design 882
- Open Shortest Path First 977
- open source software (OSS) 778
- Open System Interconnection (OSI) Network Reference Model 550
- open systems interconnect (OSI) model 919
- open-ended assignments 310
- operating range, definition 988
- optical character recognition 60
- optical character recognition (OCR) 58
- Oracle 176, 181, 186
- Oracle Foundation 902
- Oracle Warehouse Builder 10g 181
- Oracle Warehouse Builder 10g Release 2 181
- oral motor function 809
- orange book 918
- ordered array of cells 794
- ordinary differential equations (ODE) 827
- organisational communication 758
- organizational communication, genres of, definition 763
- organizational decision support software (ODSS) 191
- organizational inertia, definition 763
- orthogonal decision trees (ODTs) 204
- OSPF 977
- other health impaired (OHI) 443
- Òthird paradigmÓ of computing 279
- Òthird waveÓ of computing 279
- Òtook nothing and left nothingÓ (TNLN) 270
- overfitting, definition 208
- P**
 - Page Maker 209
 - Palm Operating System (OS) 848
 - Palm Pilots 275
 - paper-based tests 131, 137
 - parabolic trajectory 570, 572
 - parallel collaboration 843
 - parallel computing 323
 - parallel computing classes 327
 - parallel I/O 326
 - parallel library 326
 - parallel programming 324
 - parallel/distributed networks 323
 - parallel/distributed systems 323
 - parallel/grid computing 329
 - paramedic support 881
 - parent blog 91
 - Partnerships in ICT Learning (PICTL) project 22
 - passive learning 1
 - Patriot Act of 2001 489, 617
 - patriotism 616
 - PBL, definition 274
 - PCL theory 309
 - PDA technology 847, 848
 - PDA's 918
 - pedagogic values 875
 - pedagogical agents 699
 - pedagogical design issues 882
 - pedagogical knowledge 876, 877
 - pedagogical processes 298
 - pedagogies and models 680
 - pedagogy 567, 808
 - peer instruction 888
 - peer social interaction 616
 - peer-to-peer (P2P), definition 264
 - peer-to-peer (P2P) 260

- peer-to-peer (P2P) e-commerce 261
- peer-to-peer file sharing networks 799
- peer-to-peer support 281
- Pennsylvania Department of Education (PDE) 863
- Pennsylvania's Academic Standards for History 634
- Perception Engine (PE) 108
- performance analysis 326
- performance tuning 326
- performance-based standards 218
- permalink, definition 92
- permalinks 89
- permanent virtual circuits (PVC) 973, 974
- persistence 324
- personal area network (PAN) 979
- personal computer 793
- personal computers 817
- personal computing device 279
- personal computing era 279
- personal contact, lack of 818
- personal data, negligent handling 920
- personal data, protection of 920
- personal data 919
- Personal Data Privacy and Security Act 120
- personal devices 275
- personal digital assistants (PDAs) 261, 306, 580, 811, 847, 865, 891, 979
- personal digital stories 235
- personal e-mail and listserv 678
- personal feedback 2
- personal information manager (PIMs) 848
- personal organizers 809
- personal response systems 889
- personalized system of instruction (PSI) 74
- personalized Web sites 88
- pervasive computing, definition 887
- petabyte, definition 184
- PFT Virtual Seminars 724
- pharming 119
- phenomenal field theory 377
- phishing, definition 123, 923
- phishing 118, 119, 919
- photoblog 90
- photoblogging, definition 92
- Photoshop 360
- photo-visual literacy 228
- physical disabilities 811
- physical or the concrete world (PW) 104
- Piaget, Jean 112, 713
- Piaget 610
- piece-wise affine (PWA) 828
- pilot training 353
- ping, definition 92
- pingback 89
- plagiarism 617, 716-720
- plastic surgery 618
- PlatoDCS 641
- play dates 616
- PLAY Interactive Institute 883
- plog 90
- PMI (plus-minus-interesting) survey 23, 24
- Pocket PCs (PPCs) 891
- Podcast 722
- podcasting 721
- Podcasts 721
- Podsafe Music Network 723
- Podsafemusic 723
- pointer 60
- portability 174, 847
- portable devices 891, 918
- portable document format (PDF) 278
- portable game devices 580
- portable media players 580
- portable note taking 60
- portable technologies 882, 885
- portables with wireless access 280
- portfolio 221
- portfolio artifacts 223
- portfolio software 225
- positive feedback, definition 7
- positive feedback 4
- postmodern computing 882
- PowerPoint 477
- practical intelligence 216
- pre-K students 498
- preoperational stage (two to seven years of age) 714
- prereferral process, definition 62
- presence technology, definition 887
- presentation 794
- preservice teachers (PSTs) 228
- primary source based instruction (PSBI) 444
- primary source-based instruction (PSBI) 441
- principle of activity theory 11
- principle of andragogy 11
- principle of reinforcement 11
- principle of repetition 11
- principle of situated cognition 11
- principle of social-cultural principles of learning 11
- Principles and Standards for School Mathematics 863
- prior learning, recall of 354
- prior learning experiences 354

Index

- problem recognition 199
 - problem solving 353, 567, 874
 - problem solving tutorials 876
 - problem-based approaches 874
 - problem-based learning, definition 315, 548, 880
 - problem-based learning (PBL), definition 274
 - problem-based learning (PBL) 2, 269, 309, 311, 355, 542, 680, 874
 - problem-based learning (PBL) challenges 269
 - problem-based learning approaches 874
 - problem-based learning environments 314
 - problem-centered learning, definition 315
 - problem-centered learning, theoretical framework 311
 - problem-centered learning (PCL) 309, 311
 - problems 848
 - problem-solving engine 134
 - problem-solving environment 569, 875
 - problem-solving skills 308, 309, 311
 - procedure following 353
 - process patterns 784
 - production blocking 890
 - progenitor 88
 - program counter (PC) 108
 - program loading process 327
 - program refinement 325
 - programmed instruction (PI) 72
 - programming 796
 - programming environment 796
 - programming languages 329, 796
 - project approach, the 536
 - project method, the 533, 535
 - Project Interactive 865
 - project management, definition 315
 - project-based assignments 618
 - project based instruction 534, 536
 - project-based learning 2
 - project-based learning environments 283
 - projectile 570
 - projectile motion 570, 571, 573
 - projectile problem in mechanics dynamics tool 570
 - projectile theory 572
 - PROLOG 147
 - proprietary frameworks 324
 - protection analysis project 918
 - protection of personal data 920
 - proven education results 634
 - proximity 211
 - pruning, definition 208
 - Psion I 37
 - psychological divide 740
 - psychomotor 937
 - public awareness 289
 - public caches 270
 - publicly-funded form of instruction 162
 - pyramid model 325
 - pyramid-shaped model 325
- ## Q
- Quaker Valley School District 275
 - qualitative comparisons 312
 - quality of service (QoS) 556
 - quantitative problems 889
 - QuarkXpress 209
- ## R
- Radio on Demand 721, 723
 - range, definition 798
 - RDBMS 186
 - reactive agents 324
 - reading pens 809
 - really simple syndication (RSS) 953, 960
 - real-time added value 883
 - real-time captioning 60
 - real-time data warehouse, definition 184
 - real-time motion 568
 - Real-Time Process Algebra (RTPA) 108, 630
 - real-world connections 280
 - recall of prior learning 354
 - recreational drugs 618
 - refactoring 785
 - reflection, three types of 914
 - reflection, definition 237
 - reflection 199, 236, 237
 - reflective behavior 310
 - reflective digital stories 236
 - regression analysis 168
 - Rehabilitation Act 808
 - relational data model, definition 190
 - relational database management system (RDBMS) 186
 - relational databases 187
 - relative reference, definition 798
 - reliability 174
 - remediation 217
 - repetition 210
 - repetitive negative feedback 3
 - reproductive literacy 228
 - resource-based view, definition 763
 - resource-based view 758, 759
 - response generation 353

- return on investment 920
- reverse mentoring, definition 285
- reverse mentoring 281
- rhetoric 609
- rider 571
- RIP 977
- RIPPLES model 336
- risk management, definition 196
- risk management 193
- risk stratification 588
- risk-adapted expected mortality (RAEM) 590
- risk-based net present value approach 920
- risk-based security plan 918
- Rogers's hypothesis 255
- rogue access point 919
- Rot13 270
- Routing Information Protocol 977
- RSS, definition 92
- RSS readers 722
- RSSfeed 721, 722
- rubric, definition 866
- rule application 353
- Russian Method 533
- S**
- S.A.D.D. 618
- SAGE 185
- sales revenue model 261
- Sarbanes-Oxley Act of 2002 120
- SAS 181
- SAS Data Integration 181
- scalability analysis 326
- scanner 60
- scanners 617
- schema 574, 713
- schizophrenia 810
- Scholastic's Read 180 216
- school choices for parents 634
- scientific computation 326
- scientific literacy 270
- screen magnification-devices 60
- screen magnification-software 60
- screen readers 58, 60
- SDILE, role of human facilitator 825
- SDILE, user interface of 825
- SDL, challenges and issues 816
- SDL, suggestions for implementation 819
- SDL over ADL, benefits of 816
- seamless benefit 883
- Section 504 Plan 808
- secure digital (SD) 848
- security 918
- security breaches 262, 920
- security laws and regulations 918
- security model, definition 923
- security protocols 920
- self-actualization 563
- self-actualization theory 378
- self-auditing electronic election equipment 488
- self-efficacy 4
- self-esteem 562
- self-improvement programs 618
- self-initiated feedback-seeking behavior 2
- self-motivated discovery 569
- self-paced classes 163
- self-reflection, definition 237
- self-reflection 236, 237
- sensitivity analysis, definition 196, 202
- sensorimotor stage (birth to two years of age) 713
- sensory buffer memory (SBM) 627
- sensory learning 217
- separation anxiety disorder 810
- September 11th terrorist attacks 616
- SEQUEL 186
- sequenced learning 353
- sequenced learning events 353
- sequential query language (SQL) 144
- service access point (SAP) 550
- service configuration 326
- service learning 616
- service-oriented architecture (SOA) 751
- sexual discrimination 921
- sexual harassment 488, 921
- Sharable Content Object Referencing Model (SCORM) 519
- shared network, definition 763
- shared networks 758
- shared networks in technology education 758
- shared virtual space 811
- short form journals 89
- short quips 89
- short-term memory (STM) 627
- sidebar, definition 92
- Simple English, definition 549
- SIMULA 518
- simulated virtual reality environments 882
- simulation, and interactive modeling 765
- simulation, character 766
- simulation, definition 866
- simulation, demonstrative 766
- simulation, in education 765
- simulation 764

Index

- simulation games 163
- simulation software 617
- simulations 81, 139
- situated learning, and technology 772
- situated learning, descriptions of 772
- situated learning 582
- situated learning strategy 922
- situating learning 773
- Sketchpad 865
- skilled educator competencies 493
- SKU 794
- slow convergence 977
- smart floors 881
- smart navigation 883
- smart technology, definition 285
- smart technology era 283
- Smart-NAV 811
- SmartPhones 275, 580
- smart-station concept 885
- social construct 816
- social constructivism, definition 7
- social constructivism 2
- social disorders 618
- social engineering, definition 123, 923
- social interaction 165, 617
- social interaction support, for calm technology 882
- social interaction support 881, 882
- social interactivity 849
- social isolation 818
- social learning theory (SLT) 700
- social learning theory of Bandura 771
- social limitations 648
- social networking 881
- social networking community technology projects 881
- social phobias 810
- social presence, definition 376
- social process 542
- Social Security Number 794
- social-cultural model of learning 80
- social-learning theory 124
- Society of Thoracic Surgeons (STS) 587
- socio-cultural instructional design 884
- socio-cultural theoretical frameworks 881, 882
- socio-cultural theory support 882
- socioeconomic status (SES) 649
- socio-emotional literacy 228
- socio-technical groupings 882
- soft access point, definition 989
- software 413
- software agent, definition 202
- software agents 199
- software application 793
- Software Business Alliance 119
- software development, large-scale 775
- software engineering 323, 775
- software engineering challenges 323
- software engineering education, information technology in 776
- software engineering education (SEE) 775
- software patterns 784
- software selection, basic rule 789
- software selection, checklists for 790
- solve button 135
- solver, definition 196
- Sonic-guide device 811
- SOPHIE (sophisticated instructional environment) 766
- SoundSentry 266
- spatial DSS 199
- spatial intelligence 609
- speaker phones 60
- Speaking to Write 59
- special education, definition 62
- special education 215, 808
- special education students 57
- special education teachers 808
- special needs child 811
- specialized computer programs 875
- specialized tape recorders 60
- speech and language disorders 809
- speech impairment 56
- speech-recognition software 266
- spreadsheet, cell references 794
- spreadsheet, data representation 795
- spreadsheet, definition 798, 866
- spreadsheet, presentation 794
- spreadsheet, programming 796
- spreadsheet, visual operation 794
- spreadsheets 793
- spyware, legal implications of 801
- spyware 121, 799
- Spyware Control Act 801
- SQL (structured query language), definition 190
- SQL (structured query language) 186
- SQL Server, definition 184
- SQL Server 181
- SQL Server 2005 181
- standardization 170
- standardized tests, definition 862
- standards-based mathematics classroom 863
- Starbright 810

- static visuals 5
 - step-by-step learning structures 889
 - Sternberg's Triarchic Theory of Successful Intelligence 216
 - STEVE (Soar Training Expert for Virtual Environments) 766
 - StickyKeys 266
 - stimuli induction 353
 - stimulus recognition 353
 - STOMP (student-teacher online mentoring program) 689
 - stoplights 811
 - storytelling, definition 237
 - storytelling 235, 237
 - structure of observed learning outcomes (SOLO) 229, 230
 - structured English query language 186
 - structured modeling, definition 202
 - structured modeling (SM) 198
 - structured query language (SQL) 186, 692
 - student achievement 14, 854
 - student analysis 133
 - student assessment 131
 - student assessment model 133
 - student diagnosis 133
 - student learning 875
 - student performance, instructor view 218
 - student progress database 135
 - student response systems (SRS), in the classroom 804
 - student response systems (SRS) 803
 - student Web portals 617
 - student-customer interaction 313
 - students with disabilities 56, 808
 - students with disabilities and technology 808
 - students with learning disabilities 809
 - students with multiple disabilities 810
 - students with physical disabilities 811
 - students with special needs 215
 - style delineator approach (SDA) 244
 - subject matter experts (SMEs) 895
 - subscription revenue model 261
 - suggestion 199
 - suicide 618
 - summative assessment, definition 137
 - summative assessment, written 132
 - summative assessment 4, 132, 354
 - superposition 889
 - supply chain trading 260
 - support services 238
 - supporting ubiquitous technologies, administrative guidelines 281
 - switch software 58
 - switched virtual circuits (SVC) 973, 974
 - switches 58
 - synchronous classes, definition 166
 - synchronous classes 163
 - synchronous communication, definition 669, 893
 - synchronous communication 620, 815
 - synchronous discussions 664
 - synchronous distance learning, benefits of 816
 - synchronous distance learning, implementation of 818
 - synchronous distance learning (SDL), definition 815, 822
 - synchronous distance learning (SDL) 820
 - synchronous distance learning course 816
 - synchronous interaction 664
 - synchronous learning environments 815
 - synchronous optical network (SONET) 972
 - synchronous platforms 163
 - synchronous teaching 818
 - synchronous transport modules (STM) 972
 - synergistic collaboration 843
 - synthesis 240
 - System Theory 827
 - system-dynamics-based interactive learning environments (SDILEs) 823D825
 - systems 372
 - SŽguin, Edward 609
- ## T
- tablet PCs 580
 - talking books 60
 - talking calculators 60
 - talking dictionary 60
 - talking word processors (TWP) 58
 - Tandy's Zoomer 37
 - TAPS 875
 - TAPS package design 877
 - TAPS packages, definition 880
 - TAPS packages, development aspects of 879
 - target, implementation, evaluation, and development (TIED) 484
 - task-generated feedback 2
 - taxonomies of learning 353
 - taxonomy 833
 - taxonomy for learning technologies 835
 - Taxonomy of Collaborative E-learning 839
 - taxonomy of learning technologies 833
 - TCP/IP protocols 259
 - teacher modeling 949

Index

- teacher use of technology 14
- teacher-as-expert 497
- teacher-as-learner 497
- teacher-as-scholar 494, 497
- teacher-content 470
- teacher-student interaction in SDL 819
- teacher-students interaction 818
- teacher-teacher 470
- teaching 1
- teaching and learning 723
- teaching computer security 921
- teaching media 567
- teaching practice 353
- team motivation 313
- Team Talk (TT) 192
- team-based environment 309
- team-based learning (TBL) 867
- technical divide 740
- technological advancements 882
- technological growth 886
- technological literacy 270
- technologies of teaching 808
- technology, achievement testing 855
- technology, benefits in the classroom 864
- technology, reforming schools 854
- technology, socioeconomic of 925
- technology, Dystopian views 392
- technology, impact of 389
- technology, rich learning environment and 152
- technology, Utopian views 391
- technology 56, 389Ð391, 881
- technology acceptance model (TAM) 904
- technology accessibility 265
- technology adoption 281
- technology and student achievement 854
- technology applications, investigation of 332
- technology assisted problem solving 874
- technology assisted problem solving (TAPS) packages 874, 875
- technology domain 835
- technology education 758
- technology foundations 493
- technology in the cities 881
- technology integration, definition 21
- technology integration, facilitating 333
- technology integration, impact of 16
- technology integration, instrumentalist perspective 332
- technology integration 14, 332
- technology integration in education 14
- technology of teaching 56
- technology productivity tools 56
- Technology Related Assistance for Individuals with Disabilities Act (TRAID) of 1988 56, 808
- technology-based applications 808
- technology-based instruction, physical environment 299
- technology-based instruction (TBI) 297
- technology-based programs 493
- technology-delivered instruction 262
- technology-enhanced education 864
- technology-mediated communications (TMC) 469
- technology-mediated systems 618
- Technorati, definition 92
- tech-ology 835
- telecommunication device for the deaf (TDD) 58
- telematic multi-disciplinary AT 60
- telemedicine 885
- telementoring 894Ð901
- telementoring tips, top 10 895
- Telephone Devices for the Deaf (TDD) 810
- templates 139
- terabyte, definition 184
- Teradata 186
- Teradata Warehouse 6.0 181
- terminology 353
- terrorist attacks 616
- text, definition 798
- text help software 60
- text-based description 877
- text-based environment 808
- text-based portfolio formats 224
- textbook methodology 309
- texting 616
- text-to speech 809
- text-to-speech capabilities 809
- The Max immersive learning environment 383
- The Meeting Room (TMR) 192
- The Voice of the People 721
- theory of andragogy 250, 915
- theory of immediacy and social presence 379
- theory of moral development 378
- theory of multiple representations 112, 215
- theory of pedagogy 250
- theory of reasoned action 758
- therapy 618
- Think.com 903
- Thinkquest 902
- Thinkquest Library 902
- third wave of computing 279
- threaded discussions 673
- threaded messages 88

three-dimensional artificial worlds 878
 three-dimensional virtual reality lab 811
 Tiedt and Tiedt multicultural instructional strategies 603
 tiered instruction 215
 tiered tasks, definition 220
 time division multiplexing (TDM) 972
 Time management 667
 time/place framework, definition 376
 Title I funding 634
 Tivoli Enterprise Data Warehouse 181
 tool mediation, definition 21
 Tools for Understanding 59
 top-down design 323
 top-down strategy 325
 topology 326
 total quality management (TQM) 305
 touch button technologies 616
 touch pads 809
 touch screens 58
 Tourette Syndrome 810
 trackback, definition 92
 trackback 89
 traditional instructional design 82
 traditional learning environments 888
 transaction fee model 261
 transaction processing system (TPS), definition 202
 transaction processing systems (TPSs) 197
 transactional Web presence 433
 transduction, definition 887
 transduction 882
 transformative learning, seven levels of 914
 traumatic brain injury (TBI) 811
 tree-based methods 203
 Triarchic Theory of Successful Intelligence 216
 truss 568
 truss member 568
 Trusted Computer System Evaluation Criteria (TCSEC), definition 924
 Trusted Computer System Evaluation Criteria (TCSEC) 918
 tsunami disaster 616
 Tuition Management System 261
 turnitin.com 718
 tutoring strategies 134
 two-dimensional (2-D) environment 568
 two-dimensional projectile motion 572
 two-dimensional vectors 572
 two-way communication 163
 two-way interactive video 648
 two-way video 815, 885

U

U.S. Patriot Act, definition 123
 U.S. Patriot Act 122
 ubiquitous access 281
 ubiquitous computing, definition 285
 ubiquitous computing 279, 283, 882
 ubiquitous education 280
 ubiquitous environment 883
 ubiquitous learning 280
 ubiquitous learning design guide 281
 ubiquitous learning environment (ULE) model 283
 ubiquitous learning environment design guide 282
 ubiquitous learning environments 280
 ubiquitous media 885
 ubiquitous media devices 885
 ubiquitous mobile phone 891
 ubiquitous robots 283
 ubiquitous technologies, definition 887
 ubiquitous technologies, embedding 279
 ubiquitous technologies 279, 282, 882
 ubiquitous technology environment 281
 ubiquitous technology learning environment design models 282
 ubiquitous technology research frameworks 283
 ubiquitous technology wave 280
 unauthorized processing 119
 unauthorized users 118
 understandability 175
 unified modeling language (UML) 778
 uniform lab environment 324
 uniform resource accessibility 281
 unintentional thread abandonment 674
 United Parcel Service (UPS) 181
 universal access 265
 universal design, definition 62
 universal design 57, 60, 808
 universal platform 883
 University of Phoenix 100, 243
 upward acceleration 571
 urban environments 881, 925
 urban learner 927
 urban schools, technology in 926
 USA Patent and Trademarks Office 450
 use case, definition 202
 use of mobile technology 280
 use of technology 15
 use of technology for e-learning 15
 user adaptation 881
 user interface, definition 202
 user interface 197, 881

Index

user progress screen 136
user satisfaction, definition 763
user skills 188
user-oriented design philosophy 287
users 197
user-to-network interface (UNI) 974

V

value, definition 798
Variable Life Adjusted Display (VLAD) 590
velocity 571
verbal information 353
video captioning 60
video conferencing 413, 888
video modeling 809
video monitoring 885
videoconferencing (VC) 472, 810
virtual channel identification (VCI) 974
virtual circuits (VCs) 974
virtual classes 163
virtual communities, belonging and love 562
virtual discovery learning environments 569
virtual employee 618
virtual engineering courseware 572
virtual environment 568, 569, 881
virtual field trip 483
virtual geocache, definition 274
virtual geocaches 270, 272
virtual local area networks (VLANs) 553
virtual mentoring 215
virtual reality (VR) 567, 874, 877, 878
virtual reality environment 811, 882
virtual reality simulations 414, 808
virtual schools 162
virtual science labs 163
virtual technology 809
virtual tour, defining 943
virtual tour, preparing 943
virtual tour 943
virtuality 882
virus protection software 120, 262
virus software 120
virus writhing 120
vishing 119
visual alerts 266
Visual Basic for Applications (VBA) 796
visual images 235
visual impairment 56, 811
visual literacy, definition 8
visual literacy 229
visual operation 794

visual reality spatial simulation environments 811
visualization experiments 568
visually impaired 811
vlog 90
vlogging, definition 92
voice over Internet protocol (VOIP) 119
voice recognition 58, 60
voice synthesizer 58
volunteering 616
von Neumann Architecture (VNA) 108
VR input devices 878
Vygotsky, Lev 112
Vygotsky 948

W

W3C 189
WAN configuration 326
war in Iraq 616
war-driving 920
Web 2.0, definition 887
Web 2.0 281, 410
Web 2.0 level 881
Web browsing 881
Web cameras 30
Web DSS 199
Web hosting companies 952
Web journals 88
Web log 951
Web logs 620
Web pages 293
Web portals 617
Web publishing 235
Web quest 217
Web resources, evaluation of 958
Web resources, updating 959
Web site domains, six types 293
Web site evaluation 293
Web-based advertising 617
Web-based classroom 617
Web-based delivery systems 888
Web-based GDSSs 374
Web-based learning (WBL) 395
Web-based learning environments 43
Web-based multi-criteria group support system (MCGSS) 373
Web-based portfolio formats 225
Web-based shared networks 758
Web-based training 262
Webcasting 620
Webfolio 225
Webinar 790

- webliography, development of 958
 - webliography 957Ð959
 - Weblog, definition 92
 - Weblog 88
 - we-blogging 88
 - Web-portals 783
 - WebQuest 610, 963
 - WebQuest templates 965
 - WebQuests, design of 964
 - WebQuests, essential elements of effective 964
 - Webquests, in education 965
 - WebQuests, instructional uses of 965
 - WebQuests, definition 220
 - WebQuests 865
 - Webresources 537
 - Webring groups 88
 - wee blog 952
 - what you see is what you get (WYSIWYG) 209
 - wide area network (WAN) 299
 - wide area networks (WANs) 971
 - Wide Web Consortium (W3C) 60
 - Wi-Fi 979
 - WiFi capabilities 881
 - Wi-Fi protected access (WPA and WPA2) 980
 - Wiki, definition 92
 - Wiki 611
 - Wikipedia, definition 549
 - Wikipedia 410, 543
 - Windows XP 266
 - WinPure 182
 - Wired Equivalent Privacy (WEP) 920
 - wireless, definition 989
 - wireless (WiFi) cards 848
 - wireless access 279, 280
 - wireless communication protocols 920
 - wireless computer labs, flexibility 985
 - wireless computer labs, maintenance issues 985
 - wireless computer labs, response issues 985
 - wireless computer labs, savings 985
 - wireless computer labs 983
 - wireless connectivity 280
 - wireless equivalent privacy (WEP) 980
 - wireless fidelity (WiFi) technologies 881
 - wireless handheld device 278
 - wireless lab, issues 984
 - wireless management and security, definition 989
 - wireless security 919
 - wireless security attacks 919
 - wireless technology, advantages 986
 - wireless technology, strengths 986
 - wireless technology 919
 - Wittrock, Merlin C. 357
 - word prediction programs 58
 - word prediction software 60
 - workplace privacy 920
 - work-related assignments 618
 - World Trade Center 616
 - World Wide Web (WWW) 259, 678
 - World Wide Web Consortium (W3C) 779
 - written summative assessment 132
- X
- XbaseY format 554
 - Xerox Palo Alto Research Center (PARC) 882
 - XML 189
 - XML documents 189
 - XpresReview 193
- Y
- Yahoo 643
 - YouTube 563
- Z
- zone of proximal development (ZPD) 948
 - ZyIMAGE 193