Index

A

achievement systems 49, 302, 306-309, 311, 313-314
  collection achievements 310
  completion achievements 310, 312
  educational achievements 311
  exploration achievements 310
  Luck-based achievements 309, 312-313
  multi-player achievements 311
  other types 311
  repetition-based achievements 309-310, 312-313
  Skill-based achievements 309
adaptive storytelling 103, 108
addiction 86
affinity spaces 189, 192
  WatchTheGuild.com 188, 190-194, 196-200
algorithm building 287, 289, 291, 299
Alternate Reality Games for Orientation, Socialisation and Induction (ARGOSI) 17-18, 20
benefits 19
Americans with Disabilities Act 142
Artificial Intelligence (AI) 319
at-risk youth 169, 172-173
  The Sims 176
augmented reality 30
Augmented Reality for Interactive Storytelling (ARIS) 33

B

background music 219
  cognitive impact 221
extrinsic motivation 220
intrinsic motivation 220, 226
motivational appeal 220
behavioral theory 145
behavior optimization 299
board games 287
Bruner, Jerome 355
  educational games 355
  Man: A Course of Study (MACOS) 341, 355

C

classroom interaction 34
Cognitive Load Theory 221, 224, 226
  Extraneous Cognitive Load (ECL) 221
  Germane Cognitive Load (GCL) 221
  Intrinsic Cognitive Load (ICL) 221
cognitive theory 145
Collaboration for Leadership in Applied Health Research and Care (CLAHRC) 251
collective intelligence 19, 26, 232
Commercial-Off-The-Shelf (COTS) 265
Competence-based Knowledge Space Theory (CbKST) 106
Computational Thinking (CT) 288, 317
  Mechanics, Dynamics and Aesthetics (MDA) 324
Computer-Supported Cooperative Learning (CSCL) 127
crucible experiences 157
  cross-cultural frustration 162
decision-making 163
  emotional control 163
cultural studies 188-190, 200

data deluge 46-47, 49, 58-59
DataPlay 46, 49
Day, Felicia 188, 190, 193-194, 196-197, 200
Design-Based Research (DBR) 29
designer games 285-286
Design-for-All 137-138, 141-142
disabilities 137, 142
  Wii Sports bundle 137-139
Index

Digital Educational Games (DEG) 104
digital immigrant 232
discourse analysis 178, 183-184, 188, 193, 197, 201, 289

e
educational assessment 303
Game-Based Assessment 304-305
real-time assessment 106, 109, 306
emotional intelligence 156
engagement 21-22
initial motivation 17-18, 22-23
lack of 23
sustained participation 17-18, 21-22, 24, 287
Envisioning Information 54-55, 59
European Parliament 254
Committee on Culture and Education 254
Everquest 76

F
Flow Theory 220-221

G
game authoring 30, 33, 231-232
Game-Maker 233
Game-Based Learning Computer Science 325
collaboration 329
conceptual integrity 327-328
game-play 328
institutional oversight 326
Neutrality 327
scaffolding strategies 326
setting 327
Game-Based Learning (GBL) 156, 253, 317
game design 53, 56, 60, 133, 166, 271
character design stereotypes 124
colors 57
environment patterns 127
feel 57
instructional 274
item patterns 130
macro choices 55
micro choices 55
perspective 54
serious-games 231-234, 238-239
situating narrative 57
small multiple 56
game flow elements 253, 262
game genres
accurate physics 13
action 8
adventure 7
Alternate Reality Games (ARG) 18
Construction and Management (C&M) 9
exergames 136, 140, 142
puzzle 6
Real-Time Strategy (RTS) 319
Role-Playing Games (RPG) 7
sports 8
strategy 9
vehicle simulation 9
Games, Learning and Society 4.0 Conference 46
game systems
Microsoft’s Xbox 94, 307
Nintendo DS 91-92, 94, 96-98, 100-101
Nintendo Wii 91-92, 94, 137
Sony PlayStation 94
Sony PSP 91-92, 95-98, 100
gender swapping 82
Girl Gamers Group 194
global logic 289, 298

H
higher education 17, 19, 25-26, 43, 76, 271, 336, 361
Human Computer Interaction (HCI) 137
Universal Usability 137, 143
vibrotactile cues 140

I
information visualization 46, 49-50, 53
Integrated Development Environment (IDE) 319, 332
Intellectual Disability (ID) 146
cognitive rehabilitation 149
virtual integration 151
Intelligent Tutoring System 119
IRGlove system 242, 244-245, 249

K
knowledge worker 48
Index

simulations 3-4
Slice-of-Life (SoL) script 120
social media 191, 200
social-process simulation 159, 165
sociocultural theory 62
Special Educational Needs (SEN) 146
Special Education (SE) 146

T

tabletop games 286, 299
teaching strategies
  constructionist 116, 232
  instructionist 116, 232
technocentrism 29
The Mannahatta Project 51-52, 58
  Mannahatta: The Game (M:TG) 51
thermal tracking 241, 249
Tufte, Edward R. 51, 54

U

United States Marine Corps (USMC) 155, 157
  simulation center 161
  Virtual Battle Space 1 (VBS-1) 161

V

violent video games 206-207, 212, 215-218
  aggressive behavior 207
  desensitization 209, 216
  marksmanship training 210
  mental health professionals 212
  school shootings 210
virtual identity 198
vocational exploration 173
Vygotsky, Lev 350
  imagination 352
  imitation 351
  intermentalization 71
  motivation 354
  rules 353
  self-control 354
  Zone of Proximal Development (ZPD) 62, 69, 350

W

Webkinz World 62
Whedon, Joss 190, 192
World of Warcraft (WoW) 74-75