Index

A

B
Index

Bodies INCorporated (Vesna), 258–259
Body. See Experience
Boids, 82
Bolter, Jay, 58, 66
Bond, James, 153
Bordieu, Pierre, 74
Bordo, Susan, 232
Borges, Jorge Luis, 4
Brandt, Alexander, 80
Brecht, Bertolt, 88
Bremond, Claude, 40
Brooks, Rodney, 82, 95–96
Bruckman, Amy, 92
Bruner, Jerome, 101
Buckles, Mary Ann, 312
Bush, Vannevar, 183
Cadre, Adam, 313
Cage, John, 276
Callon, Michel, 265
Capitalism, 143
Card, Orson Scott, 74
Card Shark, 169, 174, 179
sculptural form and, 170–173
Carson, Don, 122–123, 127
CAVE, 77–78
Caweltis, John, 50
Crowther, William, 51
Crick, Francis, 256
Csikszentmihalyi, Mihaly, 139,
203–204
Cultural effects, 38, 45–49, 56. See also Simulation; Social issues
Aristotelian theory and, 64–65
body training and, 73–74
configuration issues and, 61–64
consensus on, 57–61
digital literature and, 208–217
immersion and, 65–67
interaction and, 165 (see also Interaction)
metaphors and, 243
molecular society and, 56–69
representation and, 85–87
VLSCs and, 238–248
war and, 56, 67–68
Cyan, 61
Cyberdrama
aesthetic categories and, 21–23
agency and, 1, 10, 15
Aristotelian theory and, 19–25
game-story and, 2–11
interaction and, 2–9, 19–20 (see also Interaction)
Lexia to Perplexia and, 291–301
Online Caroline and, 302–309
The Sims and, 4–5
storytelling and, 1–18
Cybernetics, 86
Cyberspace. See Space
Cybertext, 35, 58, 65

Civilization, 36, 40, 52, 122, 148
Cixous, Helene, 232
"Clock of the Long Now, The" (Hillis), 252
Cohen, Michael, 186
COLUSSUS, 216
Comiket, 86–87
Command and Conquer, 52
Communication, 237
collaboration shifts and, 249–261
Conversation Map and, 241–247
Lexia to Perplexia and, 291–301
millennium paranoia and,
250–252
ntime and, 249–254, 258–260
networks and, 240–247
Online Caroline and, 302–309
themes and, 242
VLSCs and, 238–248
voice chips and, 262–287
Compact discs, 266
Computer Lib/Dream Machines (Nelson), 117
Computers, 156
ACE, 229
AI and, 96 (see also Artificial intelligence [AI])
CAD, 52
first, 254
input devices and, 79
interactive drama and, 2–9 (see also Interaction)
millennium paranoia and,
250–252
simulation and, 52–53
time and, 253, 296–297
Turing and, 229, 231–232, 267,
305–306
Universal Machine, 231–232
Computers as Theatre (Laurel), 1, 22,
85
Condition of Postmodernity, The (Harvey), 253
Configuration, 59–67
Conversation Map system
description of, 241–247
Ross on, 238–239
Sengers on, 239–240
Cooper, Sarah, 7–8
Coover, Robert, 168, 196
Coppola, Francis Ford, 200
Corporealization, 254
Counter-Strike, xi, 54, 61–62, 71, 137
Coverley, M. D., 188–189
Coyne, Richard, 256
Crawford, Chris, 36, 45–46, 138,
154–155
Crick, Francis, 256
Critical Technical Practices (CTP), 71–72, 95
Critical Terms for Literary Study (Miller), 156
Croft, Lara, 14–17, 47–48, 152
Crowther, William, 51

Cursive
Cybertext (Aarseth), 35
Cybertext Yearbook (Eskelinen & Koskimaa), 35
Cyborgs, 75

D DARPA (Defense Advanced Research Projects Agency), 75
Data mining Bodies (Vesna & de Jong), 257
Davies, Robertson, 192, 200–201
Deadline, 289
Deleuze, Gilles, 230–231
Delta Force, 71
Deoxyribonucleic acid (DNA), 256
Deptford Trilogy, The: The Fifth Business (Davies), 192
Deleuze, Jacques, 227–228, 230
Deus Ex (Spector), 51
Diablo, 50, 52
Diachronicity, 103
Dialogue. See Narratives; Storytelling
Diamond Age, The (Stephenson), 4, 228
Digital Arts and Culture Conference, 56
Digital Dialectic, The (Lunenfeld), 211
Doctor Zhivago, 127
Domingo, Placido, 274
Don Quixote, 5
Doom, 40–42, 48, 61, 75, 289
Douglas, J. Yellowlees, 165–167
immersion pleasures and, 192–206
ludology and, 36–37
Dourish, Paul, 240
Dovreni, Mira, 302
Drama, 88–90
Drawing from Life (Utterback), 222–224, 226
Dreamcast, 199
Drexler, Eric, 228
Drucker, Johanna, 208–210
Drugs, 74
Duchamp, Marcel, 252
Duck Hunt, 75
Dumit, Joseph, 247
Dungeon Masters, 121

Dungeons and Dragons, 148–149, 152, 312–313
Dunniway, Troy, 124
Duration, 41–42

E Economics, 56
Edison, Thomas, 264
Edmonson, Amy C., 255–256
Education
body training, 73–74
Freire and, 89–90
military, 74–77, 81
simCity and, 86–87
simulation training and, 73–82
visual learning and, 79–80
Ehrmann, Jacques, 38
Einstein, Albert, 252
Eisenstein, Sergei, 125
Electracy, 64
Electronic Book Review, xii
Electronic Word, The (Lanham), 185
Elite, 50
E-Literacies, 64
Eliza program, 82–83
Ender’s Game (Card), 74
Engelbart, Doug, 165, 267
Enhanced TV Workshop, 5
Enterprise, 1
Episodic structure, 20–21
Ergodic experience, 4, 35, 58
Errand Upon Which We Came (Strickland & Coverley), 189
Eskelinen, Markku
configuration issues and, 66–67
on Jenkins, 120–121
ludology and, 35–44, 50, 58–60
Esterson, A., 100–101
Ethics, 76–77, 83n6, 83n8, 282
Eudora, 241
Event time, 131–136
Everquest, 1, 4, 21, 138
emergent narratives and, 128
play-centric approach and, 148–149, 153
Evil Dead, 61
Exhibition (Finley), 312
Experience
agency and, 1, 10, 15 (see also Agency)
biological time and, 253–259
defining, 156–161
electronic poetry and, 183–191
episodic, 20–21
ergodic, 4, 35, 58
Façade and, 29–32
immersion and, 26–27 (see also Immersion)
interaction and, 2–9, 20–21 (see also Interaction)
Lexia to Perplexia and, 291–301
liveness and, 173–175
Online Caroline and, 302–309
play-centric approach and, 144–153
pleasure and, 192–206
recombinant poetry and, 227–235
symbolic spaces and, 218–226
technical agendas and, 28–29
time and, 39–42, 131–142
virtual reality and, 19, 50, 73–82, 86, 228–229, 302–317
world projection and, 131–136
Expressivator, 96
comprehensibility and, 103–107
evaluation of, 108–109
metalevel controls and, 105–106
results of, 107
sign management and, 103–105
transitions and, 105
Extensification, 20–21

F Façade (Mateas & Stern), 29–32, 167–172
Fantasy, 123–124. See also Immersion
play-centric approach and, 144–153
pleasure and, 192–206
Fernandez, Maria, 83n1
Finley, Ian, 312
“Fire Truck” (Ray), 238
Flanagan, Mary, 143–145
Flash narratives, 189
Flight Simulator, 62
Index

Flow, 139, 202–204, 230–231
Fluidiom Project, The, 257–258
Foner, Lenny, 114
Ford Motor Company, 6
Forums, 88–90
Foucault, Michel, 73, 240
Fractals, 84n9
Frank, Joseph, 201
Frasca, Gonzalo, 23–24, 36–37, 71
  on simulation, 85–94
Fredkin, Edward, 291
Freire, Paulo, 88–90
Frequency, 41
Fugitive
Game Architecture and Design
  (Rollings & Morris), 138
Game Maker, 88
Games
  ancient, 144
  arcade, 196–198
  board, 2, 15, 36, 121
  character and, 14, 16–17, 37–38,
    91–92, 170–176
  configuration and, 61–64, 65–67
  contest and, 2
  creation sites for, 88
  cultural effects and, 38, 45–49,
    56–69
  cyberdrama and, 1–33
  degrees of freedom and, 78
  development agendas and, 62–64
  Façade project and, 29–32
  forum, 90
  game-story and, 1–11
  genre issues and, 45–55
  goals and, 38–39
  hybridization and, 51
  ideological issues and, 49–51
  interaction and, 2–9, 19–32,
    310–317 (see also Interaction)
  intermediate story forms and,
    12–18
  ludology and, 36–44
  manipulation and, 38
  metaphorization and, 77–79
  military training and, 75–77
  multiplayer, 4, 54, 117, 148–153
  narratology and, 45–55
  navigation and, 77–79
  plot and, 15–16, 60
  puzzles, 2–7, 25–26, 62–63, 146,
    310–317
  reality and, 85–90
  replay and, 6–8
  research agenda for, 62
  role-playing (RPGs), 121
  saved, 131–138
  scroll, 122
  simulation and, 77–79 (see also
    Simulation)
  time and, 39–42, 131–142 (see
    also Time)
  user functions and, 38–43
  violence in, 76–77, 80–81, 83n6,
    83n8, 123–124
  world projection and, 131–136
  World Studies journal, 35, 57, 62, 118
Game theories, 117
  disciplined approach and, 154–164
  narrative design architecture and,
    118–130
  play-centric approach to, 144–153
  repurposing of, 143–144
  spatial stories and, 121–123
  storytelling and, 121–129 (see also
    Storytelling)
  “Garden of Forking Paths, The”
    (Borges), 4
  Garfinkel, Harold, 95
  Geertz, Clifford, 275
  Genetics, 251, 253–259
  Genette, Gérard, 36–37, 39, 41
  Geodesic domes, 255–256
  Geography, 254–256
  Giants: Citizen Kabuto, 138
  Gilligan, Shannon, 198–200
  Gombrich, Ernst, 79
  Gone With the Wind, 202
  Gorbet, Matt, 218–222
  Graphics. See Simulation
  Great Train Robbery, The, 5
  Greco, Diane, 165, 167–182
  Gregory, R. L., 79

FirstPerson

Grim Fandango, 61, 198, 200
Gromala, Diane, 56–60, 227–233
Grossman, David, 76–77, 83n5, 83n8
Groundhog Day, 4, 6, 52
Guattari, Felix, 230–231

H

Habitat program, 5
Half-Life, xi, 54, 61
  embedding and, 126–127
  hybridization and, 51
  time and, 136–138
Hamlet, 49, 175–177
Hamlet on the Holodeck: The Future of
  Narrative in Cyberspace (Murray),
    64, 129
cyberdrama and, 1, 3–4, 6, 8–9
  ludology and, 49–50, 60
Haraway, Donna, 56, 232, 254
Hardison, O. B., 62, 63
Hargadon, Andrew, 165–166
  immersion pleasures and,
    192–206
Harrigan, Pat, xi–xii, 1, 35, 71–72,
  117, 165–166, 207, 237,
  289–290
Harry Potter, xi, 14–15
Harvey, David, 253
Hayles, N. Katherine, 53, 218, 289
  interaction and, 184–185
  metaphoric networks and,
    291–301
  simulation and, 75–76
Hebert, Jean-Pierre, 189
Hegirascope (Moulthrop), 39
Heilner, Alex, 189–190
Heroes of Might and Magic, 52
Herz, J. C., 144, 146
Hillis, Daniel, 252, 291
Hindu philosophy, 258
His Dark Materials (Pullman), 16
Hitchcock, Alfred, 127
Hitman: Codename 47, 138
Hodges, Andres, 231–232
Holmes, Sherlock, 146, 201
Homer, 122
Hopper, Grace Murray, 211
How We Became Posthuman (Hayles),
  218
Huizinga, Johan, 119
'Hundred Thousand Billion Poems, A' (Queneau & Le Lionnais), 207
Hybridization, 51–53
HyperCard, 170
Hyper-realism, 14–15
Hypertext, xii, 58, 65, 118
artificial intelligence and, 165–166, 167–173
configuration and, 65
criticism of, 167–169
E-Literacies and, 64
engagement and, 195–196
ergodic texts and, 35
flow and, 202–204
layering and, 184–185
Lexia to Perplexia and, 291–301
liveness and, 173–175
logic and, 21
narratives and, 36–38, 118 (see also Narratives)
nature of, 169–173
orienting devices and, 187–189
pleasure and, 192–206
poetry and, 183–191
schemas and, 194–195
sculptural, 171–173
stenography and, 183–185
Storyspace and, 187–188
Thespis and, 175–179
Victory Garden and, 35
voice-overs and, 198–201

Hypertext Hotel (Brown U.), 203

I

Idiot, The (Dostoevsky), 38
Id Software, 75
Image of The City, The (Lynch), 129, 192
Immersion, 1, 26–28, 58. See also Experience; Interaction
Aristotelian theory and, 87
engagement and, 195–196, 201–204
flow and, 139, 202–204, 230–231
losing oneself, 196
metaphorization and, 77–79
navigation and, 77–79

pleasures of, 192–206
psychotherapy and, 74
reading and, 192–206
Turkle and, 87–88
voice-overs and, 198–201

Industrial Graveyard, 108
Industrialism, 56
Infocom, 61, 289, 317n6
Information. See Communication
Information Design and Technology Program (IDT), 6–8
Ingber, Donald E., 254–255, 258
Institute for Creative Technologies (ICT), 75
Integrams (Rosenberg), 299
Intensification, 20–21
Interaction, 58, 117. See also
Experience; Simulation
aesthetics and, 21–23, 82–83
affordance and, 24–25
antisocial behavior and, 80–81
Aristotelian theory and, 19–25, 87
art and, 80–81
cognitive, 158
cultural effects and, 163
defining, 156–161
disciplined approach and, 158–159
electronic poetry and, 183–191
enactment and, 20–21
entertainment and, 2–9, 75–77
explicit, 158
fictional categories and, 310–317
flow and, 202–204
formal constraints and, 28–29
functional, 158
ideological issues and, 49–51
intermediate story forms and, 12–18
literate art and, 208–217
mapping and, 134–135
metaphorization and, 77–79
narratives and, 20–21, 39–42, 45–55, 118 (see also Narratives)
neo-Aristotelian theory and, 19–20
nonlinear, 15–18

Online Caroline and, 302–309
play-centric approach and, 144–153
pleasure and, 192–206
recombinant poetics and, 227–235
symbolic spaces and, 218–226
time and, 39–42, 131–142
voice chips and, 262–287
Internet, 2, 253, 256. See also Communication
In the Labyrinth, 201
Irigaray, Luce, 232
Ito, Mizuko, 85–88, 131–133

J

Japan, 37–38, 85–86, 122
Jardine, Alice, 232
Jenkins, Henry, 117–130, 144, 197
Jeremijsno, Natalie, 237, 240, 251
voice chips and, 262–287
Johnson, Mark, 243
Johnson, Steven, 59
Jones, Steven, 253
Jong, Gerald de, 257–258
Joyce, Michael, 53, 58, 202–203, 298
Juul, Jesper, 117, 312
disciplined approach and, 155–157
game time and, 131–142
ludology and, 36–37, 48, 50–51
storytelling and, 124

K

Kac, Eduardo, 223
Kafai, Yasmin, 89
Kan Xuan (Brandt), 80
Kaplan, Nancy, 64
Keyboards, 79
Killing, 74–77, 81, 83n5
King, Ada Byron, 229
Kittler, Frederick, 209–210, 214–216
Klug, Aaron, 255–256
Koran, 86
Koskimaa, Raine, 35
Krueger, Ted, 229
Kruglanski, Orit, 225–226
Kurzweil, Ray, 230

L

Laing, R. D., 97–101
Lakoff, George, 243
Landow, George, 58, 64
### Index

<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langton, Chris</td>
<td>256</td>
</tr>
<tr>
<td><em>Language of New Media, The</em> (Manovich)</td>
<td>71</td>
</tr>
<tr>
<td>Lanham, Richard</td>
<td>185</td>
</tr>
<tr>
<td>Lantz, Frank</td>
<td>76–77</td>
</tr>
<tr>
<td><em>Last Express, The</em></td>
<td>36–37, 39, 41–42, 43–14, 198, 203</td>
</tr>
<tr>
<td>Laurel, Brenda</td>
<td>1, 289</td>
</tr>
<tr>
<td>cyberdrama and</td>
<td>19–23</td>
</tr>
<tr>
<td>immersion and</td>
<td>87</td>
</tr>
<tr>
<td>interactive fiction and</td>
<td>310–315</td>
</tr>
<tr>
<td>ludology and</td>
<td>49, 61, 64</td>
</tr>
<tr>
<td>narratives and</td>
<td>119–120</td>
</tr>
<tr>
<td>(see also Narratives)</td>
<td></td>
</tr>
<tr>
<td>novels, 12–16, 46, 50, 52, 60, 87, 122–123</td>
<td></td>
</tr>
<tr>
<td>orienting devices and</td>
<td>187–189</td>
</tr>
<tr>
<td>oscillation and</td>
<td>183–186</td>
</tr>
<tr>
<td>pleasure and</td>
<td>192–206</td>
</tr>
<tr>
<td>reality and</td>
<td>12–13</td>
</tr>
<tr>
<td>Shakespeare and</td>
<td>49</td>
</tr>
<tr>
<td>spatial stories and</td>
<td>121–123</td>
</tr>
<tr>
<td>Liveness</td>
<td>173–175</td>
</tr>
<tr>
<td>Logic</td>
<td>21</td>
</tr>
<tr>
<td>London, Jack</td>
<td>122</td>
</tr>
<tr>
<td><em>Longest Journey, The</em></td>
<td>199</td>
</tr>
<tr>
<td>Loyall, Bryan</td>
<td>2–9</td>
</tr>
<tr>
<td><em>Lucy Davenport</em></td>
<td>60</td>
</tr>
<tr>
<td><em>Ludology</em></td>
<td>35, 86</td>
</tr>
<tr>
<td>character and</td>
<td>37–38</td>
</tr>
<tr>
<td>computer game studies and</td>
<td>36–44</td>
</tr>
<tr>
<td>cultural effects and</td>
<td>56–69</td>
</tr>
<tr>
<td>gaming environment and</td>
<td>36–44</td>
</tr>
<tr>
<td>genre issues and</td>
<td>45–55</td>
</tr>
<tr>
<td>interactive forms and</td>
<td>310–317</td>
</tr>
<tr>
<td>narratology and</td>
<td>36–42, 45–55, 119–121</td>
</tr>
<tr>
<td>pleasure and</td>
<td>192–206</td>
</tr>
<tr>
<td>time and</td>
<td>39–42</td>
</tr>
<tr>
<td>Lunenfeld, Peter</td>
<td>211</td>
</tr>
<tr>
<td>Lynch, Kevin</td>
<td>129, 192</td>
</tr>
</tbody>
</table>

### M

<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Macbeth</em></td>
<td>147–148</td>
</tr>
<tr>
<td><em>Macy Conferences</em></td>
<td>298</td>
</tr>
<tr>
<td><em>Mad Dog McRee</em></td>
<td>78–79</td>
</tr>
<tr>
<td><em>Magic Mountain, The</em> (Mann)</td>
<td>xi</td>
</tr>
<tr>
<td>Majestic</td>
<td>120, 127–128</td>
</tr>
<tr>
<td>Manovich, Lev</td>
<td>71, 85, 304, 308</td>
</tr>
<tr>
<td>Mapping</td>
<td>134–135</td>
</tr>
<tr>
<td>Margulis, Lynn</td>
<td>254</td>
</tr>
<tr>
<td><em>Mario Brothers</em></td>
<td>52, 122, 152, 197</td>
</tr>
<tr>
<td>MARKS, 75</td>
<td></td>
</tr>
<tr>
<td>Massively Multiplayer Online Role-Playing Games (MMORPGs)</td>
<td>4, 117</td>
</tr>
<tr>
<td>play-centric approach and</td>
<td>148–153</td>
</tr>
<tr>
<td>Mateas, Michael</td>
<td>19–33, 98–99, 240</td>
</tr>
<tr>
<td>Maturana, Humberto R.</td>
<td>232</td>
</tr>
<tr>
<td>Mauss, Marcel</td>
<td>74</td>
</tr>
<tr>
<td>May, Gideon</td>
<td>233</td>
</tr>
<tr>
<td>McCloud, Scott</td>
<td>13</td>
</tr>
<tr>
<td>McDaid, John</td>
<td>53</td>
</tr>
<tr>
<td>McKenzie, Jon</td>
<td>118–120</td>
</tr>
<tr>
<td>Mechanicity</td>
<td>97–100</td>
</tr>
<tr>
<td>Meier, Sid</td>
<td>138</td>
</tr>
<tr>
<td>Memex, 183</td>
<td></td>
</tr>
<tr>
<td>Memott, Talan</td>
<td>53, 184</td>
</tr>
<tr>
<td>Hayles on</td>
<td>291–301</td>
</tr>
<tr>
<td><em>Lexia to Perplexia</em></td>
<td>58, 184, 289</td>
</tr>
<tr>
<td>Metalevel controls</td>
<td>105–106</td>
</tr>
<tr>
<td><em>Metaphors We Live By</em> (Lakoff &amp; Johnson)</td>
<td>243</td>
</tr>
<tr>
<td>Metz, Christian</td>
<td>39</td>
</tr>
<tr>
<td>Mez (Mary-Anne Breeze)</td>
<td>183, 185–187</td>
</tr>
<tr>
<td>Military</td>
<td>74–77, 81</td>
</tr>
<tr>
<td>Millennium paranoia</td>
<td>250–252</td>
</tr>
<tr>
<td>Miller, J. Hillis</td>
<td>156–157</td>
</tr>
<tr>
<td>Miller, Robyn</td>
<td>51</td>
</tr>
<tr>
<td><em>Mindstorms</em> (Papert)</td>
<td>89</td>
</tr>
<tr>
<td>Minsky, Margaret</td>
<td>228</td>
</tr>
<tr>
<td>Minsky, Marvin</td>
<td>291</td>
</tr>
<tr>
<td>Misadventure</td>
<td>60–61</td>
</tr>
<tr>
<td>Mission: Impossible</td>
<td>153</td>
</tr>
<tr>
<td>Mitchell, W. T. J.</td>
<td>297</td>
</tr>
<tr>
<td>MIT Media Lab</td>
<td>165</td>
</tr>
<tr>
<td>Miyamoto, Shigeru</td>
<td>122</td>
</tr>
<tr>
<td>Molecules</td>
<td>254–256</td>
</tr>
<tr>
<td>Molynieux, Peter</td>
<td>127</td>
</tr>
<tr>
<td>Monopoly</td>
<td>2, 15, 121</td>
</tr>
<tr>
<td>Montfort, Nick</td>
<td>289</td>
</tr>
<tr>
<td>interactive fiction and</td>
<td>310–317</td>
</tr>
<tr>
<td>literal art and</td>
<td>210–212</td>
</tr>
<tr>
<td>ludology and</td>
<td>58</td>
</tr>
<tr>
<td>MOOs, 14, 21, 303</td>
<td></td>
</tr>
<tr>
<td>hypertext and</td>
<td>175–177</td>
</tr>
<tr>
<td><em>n0time</em></td>
<td>252</td>
</tr>
<tr>
<td>MOOSE Crossing</td>
<td>92</td>
</tr>
<tr>
<td>Morris, Dave</td>
<td>138</td>
</tr>
<tr>
<td><em>Mortal Kombat</em></td>
<td>61</td>
</tr>
<tr>
<td>Mosaic, 170</td>
<td></td>
</tr>
</tbody>
</table>

---

326
Motorola, 264, 268
Motte, Warren, 38
Moulthrop, Stuart, 167
  cultural effects and, 56–69
  ludology and, 35, 39, 47–48
Ms. Pac-Man, 162–163
MUDs, 14, 21, 59, 92
  hypertext and, 175–177
  play-centric approach and, 148–153
Murray, Janet, 49, 58, 289
  aesthetics and, 21–23, 64
  Aristotelian theory and, 64–65
  configuration and, 59–65
  cyberdrama and, 1–11
  electronic closure and, 59
  emergent narratives and, 129
  immersion and, 65–67, 78–79
  interactive forms and, 310–311
  Laurel on, 22
  Mateas on, 19–33
  narratives and, 119–120
  Pearce on, 144
  script pleasure and, 201–202
Music, 46, 258
  voice chips and, 269, 271, 275–277
Mybridge, Edward, 252
Myers, David, 139
Myst, xi, 198, 203, 311
  cyberdrama and, 1
  embedding and, 126
  hybridization and, 51
  ludology and, 37, 54, 60
genre issues and, 45–55
  hypertext and, 167–182 (see also
  Hypertext)
  interactive forms and, 310–317
  Lexia to Perplexia and, 291–301
  metastory and, 145
  micro, 124–126
  narrative design architecture and, 118–130
  Online Caroline and, 302–309
  orienting devices and, 187–189
  oscillation and, 183–186
  performative, 145
  play-centric approach and, 144–153
  pleasure and, 192–206
  recombinant poetry and, 227–235
  schizophrenia and, 95–116
  semiotic representation and, 86
  stenography and, 183–185
  story system and, 145
  time and, 39–42
  voice-overs and, 198–201
Natyasastra, 38
Negroponte, Nicholas, 165
Neighboring, 233–234
Nell, Victor, 195
Nelson, Graham, 314
Nelson, Ted, 117, 165, 167
NetPC, 66
Netscape Messenger, 241
Networks
  chaos theory and, 251–252
  collaboration shifts and, 249–261
  Conversation Map and, 241–247
  geographies of, 254–256
  Lexia to Perplexia and, 291–301
  qualities needed for, 249
  systems analysis and, 256
  time and, 249–261
  VLSCs and, 238–248
Newman, James, 52
New media
  agency and, 1, 10, 15 (see also
  Agency)
  configuration and, 61–67
  Conversation Map and, 241–247
  creativity and, 118–120
  cyberdrama and, 1–33
intermediate story forms and,
  12–18
internet implosion and, 56
judgment criteria for, 10
reactive, 4
simulation and, 73–84 (see also
Simulation)
Nichols, Bill, 71
Nintendo, 75, 86, 122
Nio (Andrews), 187
Nokia Game, 38
Norman, Donald, 65, 119
Notes by The Translator (King), 229
n0time, 249–254, 258–260
Nude Descending a Staircase (Duchamp), 252

O
Obsidian, 198, 203
Of Grammatology (Derrida), 228
OneTrees (Jeremijenko), 251
Online Caroline, 289, 302–309
Order, 40–41
Oscillation, 183–186
OttoAndiris.com, 5–7
OuLiPo, 53, 207, 212, 289
Oz Project, 2, 20, 49

P
Pac-Man, 71, 90
Papert, Seymour, 89
Parlett, David, 38
Pearce, Celia, 117, 133, 143–153
Pedagogy of the Oppressed (Freire), 88
Peirce, Charles Sanders, 227–228
Pengo, 136–137
Penguin Who Wouldn't Swim, The, 7–9
Penny, Simon
  communication and, 265–266
  ludology and, 61
  simulation and, 71, 73–84
Perlin, Ken, 1, 12–18, 171
Phobias, 74
Photopia (Cadre), 313
Picture Theory (Mitchell), 297
Pirates of the Caribbean, 123
Play
  artificial, 160

N
Narratives, 54, 57–60, 130
  artificial agents and, 95–116
  augmentary, 145
  comprehensibility and, 103–107
  configuration and, 61–65
  cultural statements and, 86–87
  defining, 156–161
  descriptive, 145
  disciplined approach and, 156–157
  embedded, 126–128
  emergent, 128–129
  fetishism and, 49–50
  Flash, 189
  game design and, 85–87
  genre issues and, 45–55
  hypertext and, 167–182 (see also
  Hypertext)
  interactive forms and, 310–317
  Lexia to Perplexia and, 291–301
  metastory and, 145
  micro, 124–126
  narrative design architecture and, 118–130
  Online Caroline and, 302–309
  orienting devices and, 187–189
  oscillation and, 183–186
  performative, 145
  play-centric approach and, 144–153
  pleasure and, 192–206
  recombinant poetry and, 227–235
  schizophrenia and, 95–116
  semiotic representation and, 86
  stenography and, 183–185
  story system and, 145
  time and, 39–42
  voice-overs and, 198–201

327
Play (cont.)
  conflict and, 160
defining, 156–161
disciplined approach to, 159–160
  formal, 159
  informal, 159
liveness and, 173–175
photoplay, 4
play time and, 131–136
quantifiable outcome and, 160–161
state of mind, 159
voluntary, 160
Pleasure, 205–206
  engagement and, 195–196,
    201–204
  flow and, 202–204
  principle of, 192–195
  reading and, 192–195
  schemas and, 194–195
  voice-overs and, 198–201
Pleasure of the Text, The (Barthes), 229
Poetics (Aristotle), 85
Poetry, 58
digital effects on, 208–210, 213
  electronic, 183–191
  Flash, 189
  interactive fiction and, 310
  orienting devices and, 187–189
  recombinant, 227–235
Politics, 90, 264
“Poly Field, The” (Seaman), 228–229
Pong, 137, 139, 197
Popol Vuh, 86
Prince, Gerald, 37
Psychology
  acting and, 81
  aesthetic pleasure and, 192–206
  antisocial behavior and, 80–81
  art time and, 252–253
  behavior-constraint and, 160
  biological time and, 253–260
  comprehensibility and, 103–107
  depersonalization and, 99–100
  game design and, 85–93
  immersion and, 87–89 (see also
    Immersion)
killing and, 74–77, 81, 83n5
  learned responses and, 81–82
Lexia to Perplexia and, 291–301
  mechanicity and, 97–99
  millennium paranoia and,
    250–252
  narrative, 101–103, 106–107
  nonstop action and, 130n10
Online Caroline and, 302–309
  phobias, 74
  play and, 81–82, 159
  rationalization and, 74
  reading and, 192–206
  reflexive response, 74
  schizophrenia, 95–116
The Sims and, 150
  symbolic spaces and, 218–226
  technology and, 196
  tracking and, 74–75
  violence and, 76–77, 80–81
  visual representation theory and,
    79–80
  voice chips and, 262–264,
    268–269, 278–279
Pullman, Philip, 16
Purple Moon, 21, 61, 315
Puzzles, 2–3, 146
  agency and, 25–26
  A.I. and, 62–63
  game theory and, 146
  interactive forms and, 310–317
  OttoAndIris.com, 5–7
  riddles, 314
Pynchon, Thomas, 68
Q
Quake, 23, 26, 61
  embedding and, 127
  input devices and, 79
  psychology of, 81–82
  time and, 133–134, 137
  violence in, 76–77
Queneau, Raymond, 207
R
Racter, 313
Radio, 12, 65–66, 264–265
Raley, Rita, 183–185
RAND Corporation, 256
Rauch, Alan, 49
Ray, Charles, 238
Ray, Tom, 82
Reagan Library (Moulthrop), 39
Realtime, 133–134, 296–297
Rebecca, 127
Relativism, 56
Reliving Last Night (Cooper), 7–8
Remediation (Bolter & Grusin), 185
Replay, 2, 6–8
Restaurant script, 194
Reynolds, Craig, 82
Rifkin, Jeremy, 253
Risk, 148
Riven, 17
RN, 241
Robotics, 95
Rocket series, 21
Rogue, 50
Rollings, Andrew, 138
Rosenberg, Jim, 185, 200, 213, 299
Ross, Rebecca, 238–239
Royal Game of Ur, 144
“Running Out of Space: Models of
    Information Navigation”
    (Dourish & Chalmers), 240
Ryan, Marie-Laure, 49–50
S
Said, Edward, 232
Saint-Martin, Fernande, 233–234
Sanity, Madness, and the Family (Laing
    & Esterson), 101
Sapner, Megan, 58
Schechner, Richard, 37, 41–42,
    192–196
Schegloff, Emanuel, 237, 264
Schemas
  arcade games and, 196–198
  engagement and, 195–196
  pleasure principle and, 192–195
  voice-overs and, 198–201
Schizophrenia
  agent architecture and, 102–103
  A.I. and, 97–116
  antipsychiatry and, 100–101
  depersonalization and, 99–100
  family life and, 101
  mechanicity and, 97–99
narrative psychology and, 101–102
self-identity and, 97–100
sign management and, 103–105
Schrödinger, Erwin, 254
Scrabble, 2
Sea Dogs, 123
Seaman, Bill, 293–294
interaction and, 227–235
See/Saw (Utterback & Chapman), 224–226
Self-assembly, 255–256
Semantic navigation, 241
Semiotics of Visual Language (Saint-Martin), 233–234
Sengers, Phoebe, 72
communication and, 239–240
simulation and, 95–116
Shakespeare, 49, 147–148
Shaw, Jeffrey, 78, 223–224, 229
Shenmue, 36–37, 120, 128
Shklovsky, Victor, 313
Shogun, 139
Short, Emily, 312
SIGGRAPH, 75, 189
Signs, 103–105
SimCity, 16
representation and, 86–87, 93
time and, 134
SIMNET, 75
Sims, The, xi–xii, 1, 13, 163
agency and, 16–17
character simulation and, 91, 93
configuration and, 61
description of, 4–5
hypertextual logic and, 21
ideological issues and, 50
ludology and, 36
narratives and, 120, 128
play-centric approach and, 150–152
psychology and, 150
time and, 135, 137, 139
U.S. Navy and, 76
Simulation, 52–53, 71
agents and, 82–83, 95–116
antisocial behavior and, 80–81
Aristotelian theory and, 85
body training and, 73–74
character building and, 91–93
education and, 89–90
forum, 90
interactive entertainment and, 75–77
metaphorization and, 77–79
military and, 74–77, 81
phobias and, 74
representation and, 85–87
schizophrenia and, 95–116
social criticism and, 87–89
violence and, 76–77, 80–81
visual representation theories and, 79–80
Simultaneity, 42
Sisyphus (Hebert), 189
Sketch of the Analytical Engine Invented by Charles Babbage (King), 229
Small, David, 219–220
Smith, Brian Cantwell, 291
Snelson, Kenneth, 249, 255, 257
Social issues. See also Cultural effects
aesthetic pleasure and, 192–206
Conversation Map and, 241–247
games and, 85–93
literal art and, 208–217
millennium paranoia and, 250–252
navigation and, 240–241
networks and, 250 (see also Networks)
notime and, 249–254, 258–260
schizophrenia and, 95–116
simulation and, 85 (see also Simulation)
situated AI and, 109–114
technology and, 196
VLSCs and, 238–248
voice chips and, 262–287
Sonic the Hedgehog, 197
Soother, The, 276
Space
avatars and, 21
collaboration shifts and, 249–261
Conversation Map and, 238–247
flow and, 230–231
interactive text and, 227–235
navigation and, 240–241
neighboring, 233–234
notime and, 249–254, 258–260
physical/network, 260
symbolic art and, 218–226
time and, 249–261
VLSCs and, 238–248
Space Invaders, 137
Space War, 50
Speaking Clock, The (Cayley), 53
Special Interest Group in Computer-Human Interface (SIGCHI), 267
Spector, Warren, 51
Speech recognition. See Voice chips
Spielberg, Steven, 63
Sports, 3, 10
STARPOWER, 88
Star Raiders, 50
Star Wars, 4, 50–51, 124
Steels, Luc, 82
Stefans, Brian, 213
Stelarc, 222–223
Stenography, 183–185
Stephenson, Neal, 4, 228
Stern, Andrew
cyberdrama and, 1, 22–23, 29–32
hypertext and, 167–173
Sternberg, Meir, 39
Stibitz, George R., 254
Storytelling, 85, 170
abstraction and, 119
agency and, 19–26 (see also Agency)
Aristotelian theory and, 19–26, 29–32
augmentary, 145
belief suspension and, 12, 21
conflict and, 13
defining, 156–161
electronic poetry and, 183–191
embedding and, 126–128
enactment and, 124–126
evocative spaces and, 123–124
Facade project and, 29–32
fetishism and, 49–50
game-story and, 2–11
genre issues and, 45–55
hybridization and, 51
identifying with characters and, 12–13
ideological issues and, 49–51
immersion and, 26–28
interaction and, 19–20, 310–317
(see also Interaction)
Index

Storytelling (cont.)
intermediate forms and, 12–18
metastory and, 145
narratives and, 20–21, 39–42, 45–55 (see also Narratives)
orienting devices and, 187–189
performative, 145
play-centric approach and, 144–153
pleasure and, 192–206
reality and, 12–13
Shakespeare and, 147–148
spatial stories and, 121–123
systems and, 145
transformation and, 21–23, 26–28
voice-overs and, 198–201
STOW (Synthetic Theater of War), 75
Stream of Consciousness: An Interactive Poetic Garden (Small & White), 219–221, 225–226
Strickland, Stephanie, 165
interaction and, 183–191
n0time and, 249–254
Struck system, 257
Structure, 254–256
Suchman, Lucy, 237, 240
narratives and, 95–98
voice chips and, 262–265, 275, 278–279
Sun Microsystems, 66
Sutton-Smith, Brian, 46
Sydney 2000, 199
Synergetics, 252
Systems analysis, 256

T

Tamagotchi, 4
Tang, Chao, 251–252
Technology, 196, 289. See also Communication; Computers
Conversation Map and, 241–247
critical practices and, 239–240
Lexia to Perplexia and, 291–301
millennium paranoia and, 250–252
n0time and, 249–254, 258–260
VLSCs and, 238–248
voice chips and, 262–287
Television, 12, 86, 265, 280
Tennis, 76

Tensegrity, 255–256
TEOWAWKI (The End of the World as We Know It), 250
Terrorism, 76
Tetrahedra, 255–256
n0time and, 249–254, 258–260
Tetris, xi, 2, 36–37, 39
game issues and, 48
time and, 40–41, 132
Texas Instruments, 264, 267–268
Text Rain (Utterback & Achituv), 220–226
Thacker, Eugene, 73–75, 291–293, 297–298
“Teater of the Oppressed” (Boal), 88–89
characters and, 175–176
interaction and, 177–179
patterns in, 176–177
Thompson, Kristen, 126
Tierra (Ray), 82
Tiltable Table, 218–221
Time, 199
art and, 252–253
biological, 253–260
chronology and, 136
coherent vs. level, 136–137
coherence and, 136–137
complexity of, 139–140
cut-scenes and, 135–136
dead, 138
experience of, 39–42, 131–142
flow and, 139
internet and, 253
mapping and, 134–135
millennium paranoia and, 250–252
networks and, 249–261
n0time and, 249–254, 258–260
play and, 131–136
productivity and, 250
realtime, 133–134, 296–297
saved games and, 137–138
state machine and, 132–133
violations of, 137
Titanic: Adventure Out of Time, 194, 198–199, 203
To Be Here as Stone Is (Strickland & Coverley), 188

Tolkien, J. R. R., 122, 146, 148, 153
Tomb Raider, 14–17, 47–48, 52, 61, 152
Transformation, 1, 21–23, 26–28
Transformers, 268–271
Translators, 268–270
Transliterate register, 215
True North (Strickland), 187–188
Turing, Alan, 229, 231–232, 267, 305–306
Turkle, Sherry, 65, 87–88, 204, 267, 272

U

Ulmer, Greg, 64
Ultima Online, 4, 21, 41, 52, 148
Uncle Buddy’s Phantom Funhouse (McDaid), 53
Understanding Comics (McCloud), 13
Unity of action, 20–21
Universal Machine, 231–232
Unreal, 61
Usenet groups, 237, 239. See also Communication
Utterback, Camille, 185–186, 218–226

V

Varela, Francesco, 254
Venn diagrams, 310–311
Verne, Jules, 122
Very Large Scale Conversations (VLSCs), 248
anonymity and, 239
Conversation Map system and, 241–247
navigation and, 240–241
networks and, 238
public nature of, 238–239
size of, 238
Vesna, Victoria, 14, 237, 249–261
Vicissitudes (Utterback), 225
Victory Garden (Moulthrop), 35, 167
Video games. See Games
“Videogames of the Oppressed” (Frasca), 89–90, 93
Vigeland, Emanuel, 307–308
Violence, 83n6, 83n8, 123–124
antisocial behavior and, 80–81
killing, 74–77, 81, 83n5
learned responses and, 81–82
Virilio, Paul, 252
Virtual Murder, 198–200, 203
Virtual reality (VR), 19, 50, 228–229.
See also Experience
interactive categories and, 310–317
military and, 74–77
Online Caroline and, 302–309
pets and, 86
simulation and, 73–82
space and, 240–241 (see also Space)
Virtual Worlds, 227–228
Visual learning, 79–80
Voice chips, 284–287
agency and, 262–265, 268–269, 278–279
autonomous voice and, 264–265
broadcast technology and, 265–266
content and, 262–264, 268–269, 278–279
description of, 262
distribution of, 266–267, 273–275
expressiveness and, 269, 271–272
iconic meaning and, 264
language and, 277–278
local talk and, 269, 271
music and, 269, 271, 275–277
recording chips and, 272–273
response and, 278–283
speech act and, 277–278
transformers and, 268–271
translators and, 268–270
Voice-overs, 199–201

W
Walker, Jill, 233–234, 289, 302–309
Walt Disney Co., 122–124
Walter, Grey, 82
War, 56, 74–77, 81
War and Peace, 122
Warcraft, 52, 54
Watson, James, 256
Wave mechanics, 254
Weiqi, 144
Weizenbaum, Joseph, 82, 303
What Is Life (Schrodinger), 254
White, Tom, 219–220
Wiener, Norbert, 249
Williams, Tad, 52
Winchester’s Nightmare (Montfort), 58
Wind in the Willows, 123
Wittgenstein, Ludwig, 36, 230
Wood, Ed, 17
Woods, Donald, 51
WordNet, 242
“Work of Art in the Age of Mechanical Reproduction, The” (Benjamin), 71
“Work of Culture in the Age of Cybernetic Systems, The” (Nichols), 71

X
X-Beyond the Frontier, 50
Xerox PARC, 219
X-Files: The Game, 36

Y
Young, Neil, 127–128
“You Say You Want a Revolution?” (Moulthrop), 35

Z
Zillions of Games, 88
Zimmerman, Eric, 117
disciplined approach and, 154–164
narratives and, 119
simulation and, 76–77, 88–89
Zimroth, Evan, 221
Zoesis Studios, 2
Zork, 1, 289, 314–315