

Index

- 400 project, 109, 190
- Aarseth, Espen, 15, 16, 17
- Abstract games, 1, 130–131, 142, 160–161, 176, 200
- Adaptation, 48–51, 58, 172. *See also* Stylization
- Adventure*, 72
- Aesthetics of mind, 93
- Aesthetic index, 93
- Affinity between games and computers, 5, 38, 52–53, 201
- Age of Empires II*, 145, 172–173
- Algorithms, 61–63, 120, 201
- Alice*, 145–147
- Al-Khwarizmi, 201
- Amplitude*, 176–178
- Andersen, Klaus Silberbauer, Christian Güttler, and Troels Brun Folmann, 108–109
- Anspach, Ralph, 192–193
- Anti-Monopoly*, 192–193
- Aristotle, 15
- Artificial intelligence, 8–9
- Asymmetry between rules and gameplay, 73–75, 77–78
- Atkins, Barry, 15
- Attachment. *See* Player attachment to outcome
- Avedon, E. M., 9, 21, 203n2, 30
- Axis & Allies*, 141, 145
- Backgammon, 4, 23, 50, 200
- Balancing, 207n16
- Battlefield 1942*, 46–47, 150, 165, 188–189
- Battlezone*, 138–139
- Björk, Staffan, Jussi Holopainen, and Sus Lundgren, 106
- Black & White*, 151
- Blue arrow of the video game, 190
- Board games, 2, 5, 12, 13, 23, 48–51, 58, 60, 73, 141, 164, 176
- Bordwell, David, 151, 156, 203n1
- Braitenberg, Valentino, 209n5
- Brooks, Peter, 156
- Burnout 2*, 161, 193–194
- Bust-A-Move*, 131–132
- Caillois, Roger, 10, 12–13, 29, 30, 31, 33, 35–36, 42, 164
- Card games, 23, 28, 48–51, 60
- Carmageddon*, 161
- Challenges, 5, 19, 55–56, 67, 92–116
- aesthetics of, 110–116
- consistency of, 115–116
- in emergence games, 105–110

- Challenges (cont.)
 in progression games, 97–101
 limitations of, 112–115
- Chatman, Seymour, 48, 156, 159
- Cheat codes, 34, 162, 199
- Checkers, 12, 46, 131, 142
- Chess, 8, 43, 75–76, 96, 105–106, 141
- Choke points, 107, 108–109, 188–189
- ChuChu Rocket*, 59, 97–104
- Chunking, 96, 101, 106
- Church, Doug, 109
- Classic game model, 6–7, 23–54, 197–198
 borders of, 43–44
 defined, 36
 illustrated, 44
 limits of, 54
 video games after, 53–54
- Coffin, Stewart T., 111
- Community. *See* Games, and community
- Coherent worlds. *See* Fictional worlds, coherent
- Competition, 10, 19
- Complexity, 77
- Conway's Game of Life*, 43, 78–79
- Counter-Strike*, 42, 66–67, 80, 88–91, 109, 150, 166–167
 camping in, 66–67
- Crawford, Chris, 18, 30, 31, 71, 107, 110–111
- Csikszentmihalyi, Mihaly, 16, 112–115, 155
- Culin, Stewart, 9, 23, 64
- Cut-scenes, 16, 135, 145–147
- Dance Dance Revolution*, 28, 51, 115
- Danesi, Marcel, 9, 57, 93–94, 101
- De Groot, Adriaan D., 9
- Death Race*, 161
- Defender of the Crown*, 116
- Denki Blocks*, 131–133
- Deus Ex*, 76, 81, 111–112
- Difficulty metaphors, 172–174
- Donkey Kong*, 123–130, 141, 200
- Easy to learn but difficult to master, 65
- Effort. *See* Player effort
- Emergence, 76–82, 106–110, 200
 games of, 5, 56, 67, 71–72, 73–82
 as irreducibility, 80–81
 as patterns, 80
 as a property of the game or the player, 80, 82, 105–106
 as surprise, 81
 as variation, 80
- Emergence game with progression components, 72
- Emergent gameplay, 76
- Emergent narrative, 157–159
- Eno, Brian, 201
- Eskelinen, Markku, 15
- Event time. *See* Fictional time
- EverQuest*, 72, 80, 91, 122, 134–137, 155, 159
- Falstein, Noah, 110, 190
- Fiction, 6, 21, 121–162
 cuing rules, 167–169, 176–177, 195–196
 fading, 139–141
 optionality of, 141
 and rumors, 138–139
 and storytelling, 122
- Fictional time, 142–147
- Fictional worlds, 122–123
 coherent, 131–132, 148, 162, 166, 190

- creation of, 133–139
 - disconnected, 159–151, 166–167
 - incoherent, 130–133, 139–141, 148–151, 160, 166–167
 - incomplete, 122
 - retelling test, 141
 - source of incoherence of, 151
 - FIFA 2002*, 34, 58, 151–153, 165, 170, 176
 - Fish, Stanley, 193
 - Flashbacks and flash-forwards, 147–148, 160
 - Flow, 112–115
 - Formal equivalence versus experiential variation, 51–52
 - Formal abstract design tools, 109
 - Foursquare, 11
 - Frasca, Gonzalo, 15, 16, 209n2
 - Frequency*, 176–177
 - Friedman, Ted, 191
 - Fun, 18–20, 55, 88, 113
 - Functional stylization. *See* Stylization

 - Galaga*, 112–114
 - Gamasutra, 18
 - Gambling, 28
 - Game, player, world, 23–24, 32–33, 36–37, 197–198
 - Game design patterns, 106–110
 - Game design, 18, 163, 200
 - Game Developer Magazine*, 18
 - Game Developer's Conference, 18
 - Game ecology, 17
 - Game guide test of progression and emergence, 71
 - Gameplay, 19, 65, 83–92, 199–200
 - origins of, 88–91
 - and the social, 91–92
 - Games, 23–54
 - and community, 34, 91–92, 207n17
 - changing the player, 96
 - cultural status of, 20–21
 - defined, 6–7, 29–36
 - definitions compared, 29–36
 - in different languages, 28–29
 - innovation in, 201–202
 - meaning of, 191–194
 - and narratives, 15–17, 156–159
 - as objects and activities, 43–45
 - and players, 11, 35
 - separate, 33, 35–36, 41–43
 - the study of, 7–18
 - transmedial, 7
 - unproductive, 33, 35–36
 - voluntary, 31
 - Game state, 49, 60, 143
 - Game theory, 8, 59–60
 - Game tree, 56, 60–61, 90, 106, 188, 198–199
 - Gaming, 67
 - Giants: Citizen Kabuto*, 110
 - Go, 38
 - Goals, 35, 199–200. *See also* Effort; Player attachment to outcome; Valorization of outcome as valorization, effort, and attachment, 35
 - Goffman, Erving, 12, 63
 - Golf, 21
 - Grand Theft Auto III*, 21, 82–87, 152–153, 166, 170, 172, 176, 190, 199
 - Grodal, Torben Kragh, 156, 160–161

 - Haide, Hilder, and Peter Frensch, 95, 139
 - Half-Life*, 122, 123, 148–149
 - Half-real, 1, 163, 167–169, 195–196, 199–200, 201–202
 - Handicaps, 38
 - Haptics, 135–136
 - Heron, R. E., 10
-

- Hitman: Codename 47*, 110, 179
Hobbit, The, 67–71
 Hofstadter, Douglas, 28
 Holland, John D., 59, 78, 79
 Hughes, Linda, 11, 67
 Huizinga, Johan, 10, 30, 33, 92, 164
- Iconic games, 131
 Immersive fallacy, 190
 Implementations, 49–52, 170–172, 195
 Incoherent worlds. *See* Fictional worlds, incoherent and incomplete worlds, 122–130
 Incomplete worlds. *See* Fictional worlds, incomplete
 Information reduction, 63, 95, 139
 Information, 59–60
 Interesting choices, 19, 57, 92
 Intransitive relations, 107
 Invisible walls, 165–166
- Jenkins, Henry, 15, 17, 21, 156–159
 Johnson, Steven, 78, 79
Journal of the Philosophy of Sport, 10
 Juul, Jesper, 13–16, 156–157, 177, 189
- Kelley, David, 30
 Kent, Steven, 21
 King, Geoff, 15–16
 Klevjer, Rune, 16, 207n5
 Knuth, Donald, 62–64
 Königsberg bridge problem, 9
 Kreimeier, Bernd, 107
 Krzywinska, Tanya, 15–16
- Landlord's Game, The*, 192–193
 Lantz, Frank, 13–15
 Laurel, Brenda, 16
- Learning in games, 5, 56, 97–106
Legend of Zelda: The Wind Waker, 1, 190
 Less efficient means, 33–34, 57–58
 Level design, 76, 108–109, 163, 188–189, 195
 Lévi-Strauss, Claude, 8
Longest Journey, The, 72–75
 Lopiccolo, Greg, and Alex Rigopoulos, 176–177
 Ludo. *See* Parcheesi
 Ludology, 15, 16
 Lusory attitude, 38
- Madsen, Helene, and Troels Degn Johansson, 184
 Magic circle, 33, 164–167
Majestic, 54
 Mancala, 64
 Marbles, 64–65
 Mateas, Michael, and Andrew Stern, 203n6
Max Payne, 208n12
 McCloud, Scott, 170–171
 Meier, Sid, 19, 57, 92
Metal Gear Solid 2, 136
 MIT Assassins' Guild, 204n9
Monopoly, 42, 90, 192–193
 Morgenstern, Oskar, 8, 59, 107
 Morris, Dave, 18, 107
 Murray, Janet, 15, 16, 133, 190
 Music and rhythm games, 51
 Myers, David, 112
Myst, 148, 177–179, 189
 Mythocentrism, 15
- Narrative, 122, 156–160
 emergent, 158–159
 and games (*see* Games, and narratives)

- Narrativism, 16
- Narratology, 15
- Narratology and ludology, 15–16
- Negotiable consequences, 35–36, 41–43, 54, 67
- Neumann, John von, 8, 59, 94, 107
- Newell, Allen, 9, 95–96, 205n15
- Nomic*, 66
- Orthogonal unit design, 107–108
- Parcheesi, 4, 23, 91, 200
- Parlett, David, 52, 130
- Pavel, Thomas, 8, 16, 122–123, 141, 167
- Pearce, Celia, 158–159
- Pengo*, 149–150, 166
- Physics
as found objects, 49, 57–59, 67
simulated, 49
- Piaget, Jean, 64–65
- Piccione, Peter A., 23, 200
- Pikmin*, 183–187
- Pinball, 21
- Placement (of fictional time), 144–145
- Play, 10, 28–29
- Player attachment to outcome, 36, 40, 54
- Player effort, 36, 40, 54
- Play testing, 64, 80–81
- Play time, 141–142
- Pong*, 67–71, 198
- Pop music, 201
- Possible worlds, 122
- Prince, Gerald, 156
- Principle of minimal departure, 123
- Professional sports, 42
- Progression game with emergence components, 71
- Progression, games of, 5, 56, 67, 71–73
- Projection (from play time to fictional time), 143–145
- Propp, Vladimir, 8
- Puzzle Pirates*, 173–174
- Puzzles, 93–94, 97–106, 111
- Quake III Arena*, 28, 81, 88–91, 139, 142
- Quests, 17, 72
- Rampage*, 161
- Real, 167–169. *See also* Half-real
- Repertoire (of the player), 5, 56, 97–102, 112, 115–116
- Retaux, Xavier, and Juliette Rouchier, 139
- Rilke, Rainer Maria, 21
- Ring-a-ring o’ roses, 28, 204n3
- Robbe-Grillet, Alain, 207n2
- Rock-paper-scissors, 92, 107
- Rollings, Andrew, 18, 107
- Rosenbloom, Paul S., 95–96
- Rouse, Richard, 18, 80, 87
- Rules, 5, 18–19, 36, 37, 53, 55–120
and algorithms, 61–63
arguing about, 65–66
cuing fiction, 121, 136, 167–169, 176–177, 195–196
decontextualization of, 63
enjoyment of, 116–120
as found objects, 67
as limitations, 57–58
making, 64–66
repeatability of, 45
and strategies, 59
types, 66–67
- Rules and fiction, 1–2, 4, 164, 163–196, 197, 199–200

- Rules and fiction (cont.)
 as arbitrary relation, 8, 12–15
 as a conflict, 177–183
 matching, 188–189, 195
 as meaningful relation, 13–15, 163,
 177–183
- Rules of irrelevance, 12, 63
- Ryan, Marie-Laure, 122–123, 160–
 161
- Salen, Katie, 18, 30, 31, 45, 57–58,
 164, 190, 204n6
- Saltzman, Marc, 87
- Satire, 15, 179–184
- Saussure, Ferdinand de, 8
- Save games, 6, 110–111, 199
- Senet, 4, 23, 200
- Shannon, Claude, 8
- Shelley, Bruce, 80
- Shenmue*, 133
- Shogun: Total War*, 143
- SimCity*, 28, 35, 47, 143–145, 191,
 199
- Simon, Herbert A., 9, 205n15
- Simplification. *See* Stylization
- Sims, The*, 20, 28, 35, 143, 151, 159,
 189, 199, 201–202
 and the classic game model, 35, 54
- Simulation, 170–177
- Skill acquisition, 95–97. *See also*
 Repertoire
- Smith, Harvey, 71, 76–77, 81, 82,
 107–108, 111
- Soccer, 46, 164–165, 176
- Solutions, single or multiple, 111–112
- Space Invaders*, 59, 135, 152–153
- Space, 164–167, 188–189, 195
- Spacewar!*, 3
- Sports, 48–51, 57–59, 66, 164–166
- Sportsmanship, 66–67
- Staged abstract games, 131–133
- Star Wars*, 157
- StarCraft*, 115, 208n9
- State machines, 56, 60–61, 142
- Storytelling ecology, 17
- Strategy, 59, 90
 complete, 59, 92, 120
 dominant, 8, 59, 120
- Structuralism, 8
- Stylization, 170–177, 176
- Suits, Bernard, 10, 28, 30, 33–34, 38,
 57, 204n10
- Super Mario 64*, 153–153, 199
- Super Mario Sunshine*, 154–155, 165–
 166, 183–184
- Sutton-Smith, Brian, 9, 10, 21, 23n,
 30
- Tacitus, 41
- Tekken 3*, 38–39, 59–60, 167–170
- Tekken 4*, 165, 179–183
- Tennis, 142, 167, 172
- Tetris*, 59, 131, 133, 167
 as an allegory, 133, 142
- Themability, 13–15, 189, 199
- Tic-tac-toe, 38–39, 51–52, 60–61,
 92, 94
 as a mathematical game, 51–12
- Time, 141–156. *See also* Fictional
 time; Placement (of fictional time);
 Play time
 subjective, 153–155
 violations of, 151–153
- Titanic*, 19
- Tomb Raider*, 141
- Top Spin*, 172–173
- Tosca, Susana, 17
- Traffic, 43
- Transmedial games, 48–52, 55, 198
- Transmedial storytelling, 48–52
-

- Triangularity, 107
 Tronstad, Ragnhild, 17
- Ultima Online*, 155
Unreal Tournament, 142, 165
- Valorization of outcome, 36, 40, 54
 Variable and quantifiable outcome,
 36, 38–39, 54
Vib-Ribbon, 113–115
 Video games
 and the classic game model, 52–54
 history of, 148–151, 198–199, 201–
 202
 the study of, 11–18
Virtua Tennis, 34, 170, 172
- Waldrop, M. Mitchell, 77–78
 Walker, Jill, 161
 War, 28, 43–44
WarioWare Inc., 116–117, 133
 Wibroe, Mads, K. K. Nygaard, and
 Peter Bøgh Andersen, 16
 Willing suspension of disbelief, 190
 Wittgenstein, Ludwig, 8, 23, 29
Witness, 179
 Wolf, Mark J. P., 205n12, 208n7
 Wolfram, Stephen, 77, 79, 80–81
 Wright, Talmadge, Eric Boria, and
 Paul Breidenbach, 66
 Wright, Will, 35
- Zimmerman, Eric, 18, 30, 31, 45, 57–
 58, 164, 190, 204n6
-