

Index

A

- Academic achievement, 85, 86
- Action game effects, 107–114
 - cross-sectional action
 - directionality and third variable problems, 108–109
 - imprecise language, 108
 - improved/enhanced abilities, 108
 - intensive video gaming, 107
 - overt participant recruitment, 109
 - intervention studies
 - control groups and placebo effects, 110–111
 - self-selection effects, 109
 - perceptual and cognitive abilities, 107
 - replication failures
 - cross-sectional studies, 112–113
 - intervention studies, 112
 - p-hacking and harking, 111
 - psychology, 111
 - publication bias, 114
- Action video games, 94–98, 100
 - adults, 93
 - cognitive processes and brain functioning, 93
 - gamers vs. non-gamers
 - endogenous and exogenous, 94
 - group differences, 94, 95
 - methodological considerations, 95
 - learning (*see* Learning mechanisms)
 - meta-analysis, 98–99
 - training non-gamers
 - bottom-up and top-down attentional processes, 96
 - dual tasking and task switching, 97
 - methodological considerations, 97, 98
 - MOT, 96, 97
 - response selection, 96
 - spatial attention, 95, 96
 - temporal attention, 96
 - visual search, 96
 - Visual attention, 93
- Addiction
 - gambling, 64
 - scholarly community, 60
 - time spend playing, 61, 62
 - time spent watching TV, 62
- Aggression, 6, 30
 - cognitions, 9
 - description, 24
 - GAM, 13
 - measurements (*see* Experimental methodology)
 - physical form, 6
 - self-determination theory, 30
 - sexist video game content, 139, 140
 - verbal/relational, 24
 - and violence, 6
 - and VVGs (*see* Violent video games (VVGs))
- Aggressive cognition, 25–27
- Aging, 151
 - age-invariant behavioral facilitation, 152
 - cognitive and brain declines, 152
 - gray and white matter shrink, 151
- Ambivalent sexism, 126, 127
- American Academy of Pediatrics (AAP), 83, 89
- American Society of Addiction Medicine, 43, 49
- Apple, 71, 72
- Arcade gaming, 185, 186

- Asocial Value, 178
- Attention, 107–108
 - action game (*see* Action game effects)
 - action gamers and non-gamers, 106
 - counter-consensus statement, 105
 - DO NOT promote visual attention, 107
 - DO promote visual attention, 107
 - FTC, 106
 - groundbreaking studies, 106
 - laboratory measures tapping, 106
 - perceptual and cognitive abilities, 105, 106
 - safety-critical tasks, 107
 - visual and attentional abilities, 106
- Authentic self-presentation, 88
- B**
- Baby Einstein videos, 85
- Behavioral addiction, 44, 45, 49, 64
- Benevolent sexism, 126
- Best practice, 16
- Blind recruitment, 95
- Body dissatisfaction, 88
- Bona fide* addiction, 43, 51
- Bonding social capital, 191, 192
- Boob tube, 85
- Brain, 163
 - age-related changes, 152
 - areas, 151
 - cognitive functioning, 152, 153
 - crystallized abilities, 152
 - dementia (*see* Dementia)
 - perceptual and cognitive functions, 151
 - physical activity, 152
 - in sensory and motor domains, 151
- Brain plasticity, 156, 158
- Brain's pleasure mechanism, 66
- Brain-training games
 - action games, 154
 - casual video games, 156
 - cognitive intervention, 153
 - cognitive training platforms, 153
 - Corsi blocks after training, 157
 - duration, 154
 - episodic memory, 152, 155
 - executive function and working memory, 154
 - ICT-mediated environments, 153
 - meta-analytic study, 153
 - in older adults, 153
 - placebo effects, 155
 - randomized computer-based intervention, 155
 - RCT, 154
 - training effect, 156
 - to untrained cognitive processes, 154
 - visuospatial WM, 155
- Bridging social capital, 191
- Buss-Perry self-report questionnaire, 7
- C**
- Children
 - apps, 72
 - with digital technology, 60
 - engagement with internet, 59
 - everyday interaction, 67
 - mobile devices, usage, 72
 - professional treatment/restrictions, 60
 - video gaming, 60
 - watching TV, 62
- Cocaine, 65, 66
- Code cyberspace, 175
- Cognition
 - advantages and benefits, 42
 - in older adults, 42
 - training, for dementia, 165, 166
- Cognitive and affective theories
 - Proteus effect, 124, 125
 - SCT, 123
 - sexual (self-)objectification, 123, 124
 - social cognitive theory, 122–123
- Cognitive behavioral therapy, 48
- Cognitive training
 - aging, 151
 - for dementia, 165, 166
 - intervention design, 153
 - limitations, 157, 158
 - meta-analytic study, 153
 - physical activity, 152
 - RCT, 154, 156
 - and social engagement, 152
 - to untrained processes, 154
- Commercial video games, 44
- Common demand hypothesis, 100–101
- Community
 - goals, 175
 - Katana system, 178
 - online, 174, 176
 - in urban planning and architecture, 174
- Competence, 30
- Competitive Reaction Time Task (CRTT), 34, 35
- Computer catatonia, 44
- Computer game, 61, 62

Computer-mediated communication
 MDA, 175, 176
 online communities, 174
 online systems, 174, 175
 SIDE theory, 176
 social architecture, 177
 social capital, 177
 theories, 176

Consensus, 2, 3

Controversy, 3

Correlational research, 13

Crystallized abilities, 152

Cultivation theory, 126, 141, 142
See also Sexism

Cyberbullying, 88

D

Debates
 in academia, 2
 gun control, 1
 impact, mental health, 1
 and skeptical scrutiny, 3

Dementia, 151, 158, 164–169
 design/analysis
 generalizability, 168
 play time, 168, 169
 sample size, 167
 games, 163
 cognitive training, 165, 166
 for diagnosis, 164–165
 research, 167
 for treatment, 165, 166
 memantine, 163
 neurotransmitter glutamate, 163
 progression, 163
 symptoms, 163

Digital devices, 71

Digital games
 character portrayals, sexist, 120
 feminist critiques, 119
 hypermasculine and violent, 120
 male and female characters, 119
 media influence, 120
 sexism, 119–122

Digital media, 71

Digital technology, 59, 60, 66

Directionality problem, 108–109

Discrimination, 120

Dopamine, 65, 66

Downward spiral model, 11

Dual tasking, 97

2011's *Duke Nukem Forever*, 120

E

Economics, 176, 179

Educational apps, 73, 77

“eThrombosis”, 47

Event-related evoked potentials (ERPs), 152

Event-related potential (ERP), 99

Experimental methodology, 7, 8
 game content and mode of play, 8
 measurement, aggression
 dispositional anger, 7
 indirect measure, 7
 physical expressions, in lab, 7
 playing with gun controller, 7
 pupil dilation, 7, 8
 self and aggressive words, 8
 post-test causal effects, 14
 publication bias, 9
 stimulus materials, choosing games, 8, 9
 taskforce, scholars, 15

Experimental studies, VVGs on aggression
 behaviour, 26
 cognition, 25, 26
 in laboratory studies, 27
 meta-analyses, 26
 publication bias, 26, 27

External validity, 12, 13

F

Facebook posting, 173, 178

Fatal pulmonary thromboembolism, 47

Female-friendly video game, 132

Friendships, 186–192

G

Gambling addiction, 64

Gambling Disorder, 43

Game, *see* Video games

Game developers, 175–177, 180, 181

Game intervention studies, 115

Gameplay, 108, 132

GamerGate, 131

Gaming disorder, 64

Gender, 121–123, 126, 131, 132

General Aggression Model (GAM), 13
 cognitive changes, 29
 competitive games, 30
 contextual effects, 30
 criticism, 29
 individual differences, 31
 in-game aggression, 31
 in-game violence, 30

General Aggression Model (GAM) (*cont.*)
 observational learning, 29
 person and situation factors, 28
 range of factors, 30
 short- and long-term cognitive changes, 29
 situational factors, 29
 violent, in games, 28
 witnessing/enacting fictionalised
 violence, 29
 Glutamate, 163
Grand Theft Auto game, 121
 Gun violence, 1

H

Hazardous gaming, 64
 Hegemonic masculinity, 119
 Hostile sexism, 126
 Hot sauce measure, 12
 Human needs, 30

I

Industrial organization (IO) model, 174
 Interactive media
 app content, 74
 Apple, 71
 children's apps, 72
 children's use, 72
 2D to 3D sources, 75, 76
 educational apps, 73
 educators, childhood, 74
 infancy and early childhood, 74
 iPad, 71
 learning, children, 76
 mobility and flexibility, 74
 vs. noninteractive media, 73
 potential harm, 72
 prevalence, in children's, 71
 screen time, 72
 short- and long-term impacts, 74
 sleep quality, 77, 78
 social interaction, 76, 77
 touchscreen devices, 71
 video chatting, 73
 video deficit, 75
 International Classification of Diseases
 (ICD), 64
 Internet connectivity, 186
 Internet gaming disorder, 42–44, 48, 63
 Internet Use Disorders, 48
 Internet users, 59
 iPad, 71–73
 iPhone, 71, 73

K

Katana system, 178

L

Learning
 2D and 3D, 75, 76
 from touchscreens, 75
 infants' and children's, 77
 iPads and iPhones, 73
 and motor skills, 74
 puzzle, 76
 Science of Learning, 73
 and sleep, 71
 tablets, 74
 video chat, 77
 Learning mechanisms
 common demand hypothesis, 100–101
 do not learn aggression, 100
 do not subsequently engage in violence, 100
 learn hypothesis, 101
 testing training effects, 100
 Learning to learn hypothesis, 101
 Local area networks (LAN), 186
 Lumosity, 105, 155, 156

M

Machine-learning model, 85
 Magic bullet theory, 120
 Massively multiplayer online (MMO)
 games, 189
 Massive-scale emotional contagion, 87
 MDA (mechanics, dynamics and aesthetics)
 approach, 175, 176
 Media effects, 3
 Media psychology, 31
 Media technology, 5
 Media violence, 29, 31
 Memantine, 163
 Memory constraint theory, 2D learning, 76
 Mental disorder, 64, 65
 Meta-analysis, 13–15
 Meta-analytic method, 98–99
 Meta-level analysis, 177–179
 Misogyny, 137
 Modality switching, 189
 Mood management, 25
 Multiple object tracking (MOT), 96, 97, 113

N

Natural rewards, 66
 Neural mechanisms, 99

- Neurobiological research, 47, 50
 Noninteractive media, 73
 Non-interactive media, 74, 77
 Non-verbal cue systems, online games, 190, 191
- O**
 Obsession, 44
 Offline players, 186
 Online communities, 174
 Online disinhibition effect, 191
 Online games, 63
 Online harassment, 131
 Online player, 186
 Online questionnaires, 64, 65
 Online systems, 174, 175
 Online tests, 64
- P**
 Pathological video game players, 63
 Pew Research Center, 93
 Pharmacotherapy, 48
 Physical health, 63
 Physical space, 186
Pokémon Go (game), 173
 Prejudice, 120
 Proteus effect, 124, 125
 Psychoactive drugs, 66
 Psychoticism, 28, 31
 Publication bias, 9, 12–14, 26
 Puzzle, 76
- R**
 Randomized controlled trials (RCT), 153–156
 R18+ classification, 33
 Realism, game's content, 8
 Recruitment, 109
 Rehabilitation tools, 114
 Research community, 60
- S**
 Satanic/drug-related messages, 23
 Science of Learning, 73
 Screen time
 AAP, 83
 black/white recommendations, 84
 children, 83
 3-dimensional experience, 84
 total abstinence, 83
 worker bee, assumptions, 84
 zero-end sum game, assumptions, 84
- Selective attention, 155, 156, 158
 Self-attitudes, 122
 Self-determination theory, 30
 Self-perceptions, 122
 Sexism, 120–122, 138–143
 attitudes and behaviors, 140–141
 content
 descriptors, 139
 as dichotomous category, 140
 experimental studies, 139
 “gangster lifestyle”, 139
 graphicness, 138
 operationalization, 138
 realism, 138
 sandbox/open-world games, 140
 types and dimensions, 139
 users, self-report ratings, 139
 and violence, 138
 content analyses, 137
 cultivation research
 first-order effects, 142
 methodological difficulties, 142
 realism, 143
 second-order effects, 141, 142
 theory, 141, 142
 dimensions, 144
 harassment, 144
 interactions, 144
 media/socialization and selection
 effects, 143
 meta-analytic techniques, 145
 and misogynist attitudes, 138
 research and society, 137
- Sexist
 attitudes and behaviors, 140–141
 content, 138, 139
- Sexist game content
 with sexist themes, 129–130
 with sexualized avatars, 127–129
- Sexist video game, 121
- Sexual assault, 130
 Sexual harassment, 137, 144, 145
 Sexualized/nonsexualized character
 designs, 131
 Sexual (self-)objectification, 123, 124
 SIDE theory, 176
 Sleep
 children's, 77
 interactive media, effects, 77
 and learning, 71
 media use, 77
 mobile devices, 78
 touchscreen, effect of, 78
 Sleep deprivation, 48

Smart online communities, 176
 Smartphones, 87–89
 “Soccer mom”, 41
 Social architecture, 177, 178, 180, 181
 Social attitudes
 ambivalent sexism, 126, 127
 social identity theory, 125, 126
 Social capital, 177, 191, 192
 Social cognitive theory, 122, 123
 Social comparison theory (SCT), 123
 Social dominance orientation, 132
 Social identity model of deindividuation effects, 176
 Social identity theory, 125, 126
 Social interaction, 76–78
 Social media, 87–89
 Social play, 178, 179
 Social presence, 190
 Social psychology, 122–127
 See also Cognitive and affective theories
 See also Social attitudes
 Social Value, 178
 Socially deviant behavior, 65
 Societal violence
 crime rates and video game sales, 32
 meta-analysis, 32
 R18+ category, 33
 rating system, 33
 violent incidents, 32
 VVG use and school shootings, 32
 Socioeconomic status (SES), 85
 SpongeBob SquarePants, 86
 Statistical significance, 87, 88
 Stereotypes, 120, 122, 126, 127, 129
 Stigmatization, 64
 Strategy games, 42
 Suicide themed media, 89
 Suicide-themed media, 89
 Survey research
 cross-sectional, 10
 favorite games, 10
 Game Addiction Scale, 10
 hours, online game play, 10
 levels of harm, measurement, 11–12
 over multiple points in time, 11
 research tools, 5
 undergraduate students and adults, 10

T
 Tablets, 74
 Task switching, 97
 Task-switching paradigm, 113
 Technological addictions, 44

Theoretically derived multivariate analyses, 85
 Third-variable problem, 108–109
 Touchscreen, 71
 Apple, 71
 children’s physical interactions, 74
 children’s sleep, 77
 2D and 3D objects, 75, 76
 face to face instruction/interactions, 76
 interactive devices, 71 (*see also* Interactive media)
 on infant and toddler sleep, 78
 iPad, 71
 and live contexts, 75
 mobility, 73
 to noninteractive screen media, 77
 perceptual features, 75
 public concern, 78
 puzzle, 76
 screen time, 72
 young children’s use, 71

U

U.S. Federal Trade Commission (FTC), 105

V

Victimization, violent crimes, 33
 Video chatting, 73, 76, 77
 Video deficit, 75, 87
 Video game addiction, 44–48
 addictive behaviors, 44
 as *bona fide* addiction, 43
 clinical evidence
 fatal pulmonary thromboembolism, 47
 Internet Use Disorders, 48
 mental health, 48
 pharmacological treatment, 48
 psychological treatments, 48
 scientific feasibility, 47
 sleep deprivation, 48
 definitions, by ASAM, 43
 empirical evidence
 commercial video games, 44
 comorbid depression, prevalence of, 46
 disorders, 46
 epidemiological research, 45, 46
 harmful effects, 46
 neuroimaging evidence, 47
 at psychological level, 44
 prevalence rates, 45
 structural abnormalities, 47
 technological addictions, 44
 Video game effects, 41, 42, 46

- Video game fix, 47
- Video games, 187–192
 - consensus, 2, 3
 - development, 186
 - dialogue, 3
 - digital cocaine, 65
 - discussions, 2
 - gamers, USA, 41
 - impact of, violence, 1
 - interactive nature, 5
 - and negative psychological states, 62
 - neuroscience, 66
 - obsession, 44
 - as pastime and leisure activity, 41
 - politics, 2
 - potential addictive nature, 42
 - potential and controversial adverse effects, 42
 - rating system, 33
 - research, 2
 - research community, 60
 - shootings, 1
 - and social isolation, claims, 187–188
 - group activity, 187
 - loneliness, players, 189, 190
 - on commercial market, 187
 - online gaming, 188, 189
 - online vs. offline friends, 191, 192
 - shooting games, 188
 - time spend playing, 61
 - time spent playing, 61
 - time spent watching TV, 62
 - violent behavior, 1
- Video gaming, 93
- Violence, 32, 138
 - and aggression, 24
 - delinquency, bullying and hitting, 13
 - and sexism, 137, 138 (*see also* Sexism)
 - societal trends (*see* Societal violence)
- Violent behavior, 1
- Violent films, 23
- Violent video games (VVGs), 24, 25, 27, 28
 - on aggression, 28
 - applied studies, 27
 - cross-sectional studies, 27
 - effect size, 27, 28
 - experimental and real-world studies, 28 (*see also* Experimental studies, VVGs on aggression)
 - GAM (*see* General Aggression Model (GAM))
 - longitudinal studies, 27
 - moderators, 28
 - mood management, 25
 - proponents, 24
 - real-world aggression, 25
 - relationship, 25
 - on postgame behaviours, 24
 - outcomes, 24
 - unidentified researcher degrees of freedom, 34
- Virtual space, 186
- Vision
 - and attention, 106, 108, 112
 - IQ, 106
- Visual attention
 - neural mechanisms, 99
 - See also* Action video games
- Visuospatial WM, 154, 155, 157
- VVG-aggression relationship, 27, 31, 34
- W**
- Well-being, players, 190
- Worker bee assumption, 84
- Working memory (WM), 151, 154–157
- World of Warcraft*, 63
- Y**
- Young children
 - 2D learning environments, 87
 - abstinence, 86
 - baby videos, 85
 - behavioral and academic outcomes, 86
 - boob tube, 85
 - digital media entertainment, 86
 - executive functioning, 86
 - infants and toddlers, 86
 - interactive screens and cognitive development, 87
 - interactive technology, 86
 - learn endlessly, 87
 - middle-of-the-road perspective, 87
 - policymakers, 85
 - SES, 85
 - zero-end sum game, 86
- Z**
- Zero to Three* (2014), 84