

Index

- abduction 385
- actant, concept of 345–6
- actor-network theory (ANT) 332, 334, 335, 338, 341–50
 - actant 345–6
 - conceptual tools 348–50
 - critiques 351–6
 - inscription and standardization 346–8
 - problem of studying gender 353–5
 - symmetry 343–5
 - translation 341–3
- Adam, B.: *Time in Social Theory* 311
- adaptive structuration theory (AST) 316–17
- adequating truth 390
- Adorno, Theodor W.
 - background 129–33
 - dialectical reasoning 147
 - instrumental reason 147–9
 - on interpretivism 143–4, 144–5
 - on positivism 140–3, 144–5
 - pure reason 147, 148
 - real illusions 149–51
 - relevance to IS research 130–1, 133–6, 136–7, 145–6
 - subjects and objects in IS research 137–40
 - technological reasoning 148–9
 - technology and society 146–51
- aesthetic criticism 201
- agent-based modeling 427, 428–32
- agreement-oriented communication 193–4
- alethic truth 390
- archaeology (Foucault) 250
- argumentation, theory of 200
- Aristotle: *Metaphysics* 84
- artificial intelligence (AI) 91
- authenticity 134
- automate/informate debate, Foucault and 267–71
- autonomization 110–11
- autopoiesis 426, 442n.10
- axial coding 7

- Beck, U.: *Risk Society* 306
- behaviour pattern 33
- being-in-the-world 69, 86–7, 98n.9, 98n.10, 435
- belief system 33
- Bentham, Jeremy
 - panopticon model 253–4
 - Works* 261
- bio-power 242, 255–6, 270, 288
- Boolean networks 426, 427, 428, 443n.12
- boundaries of systems 417–18
- butterfly effect 442n.8

- Cartesian dualism 68
- catastrophe theory 50
- causality 374
- causal mechanisms 435

- cellular automata 427, 428
- Central Limit Theorem 3
- chaos theory 50, 421–2, 427
- chaotic regime 426
- clearing, concept of (Heidegger) 435
- co-adaptation 424–5
- co-evolution 424–5
- cognitive interests, theory of 172, 173–9
- communication, principles of, in discourse regulation 275, 276
- communicative action, theory of (Habermas) 178–9
 - application 210–16
 - basic action typology 183–90
 - building blocks of 179–203
 - Foucault on 265
 - relationship between knowledge and rational action 180–4
- communicative interest 176
- communicative rationality 209
- complex adaptive systems 50
 - co-adaptation and co-evolution 424–5
 - information systems as 437
- complexity 407–39
 - attractors 421
 - boundary, concept of 411
 - chaos 421–2, 427
 - in classical IS paradigm 410–13
 - definition 410
 - dynamics 411–12, 420–1
 - emergence 422–4
 - feedback loops and 412–13
 - holistic perspective and reduction of 411
 - network connectivity and state changes 426–7
 - phase space 420–1
 - science of 418–27
 - self-organization 425
 - spontaneous creation of order 425–7
- complexity theories 50
- conflict theory 52n.2
- consciousness
 - Husserl on 61–2, 63, 64, 65, 87
 - Ricoeur on 114
- conspiracy beliefs 38
- constructivism 138, 335–6
- control societies 259
- conventionalism 377–9
- covering law model 377
- crime 29
- critical naturalism 380
- critical rationalism, limitations of 160
- critical realism 372–98
 - aims 380
 - application to IS research 393–8
 - criticisms of 388–93
 - independent ontological domain 381–3
 - multimethodology 397–8
 - natural science 383–5
 - social science 385–8
 - soft systems methodology 396–7
 - statistical modelling 394–6
- critical social theory (Habermas) 157–228
 - applications in IS research 210–16, 216–20
 - discourse theory 178–80, 198–203
 - evolution 163–6
 - fundamental goal 167–73
 - future research 220–8
 - historical context 159–79
 - language in models of action 193–4
 - man and his work 166–7
 - philosophical traditions behind 161–3
 - rational discourse concept 203–10

- social action typology 183–8
 three-world plus lifeworld
 ontology 190–8
 types of argumentation 184
 typology of action 183
 vs hermeneutics 121
see also communicative action,
 theory of
 culture industry, Adorno on 145
- Dasein see* being-in-the-world
 datum, definition 13
 deconstruction 90, 436
 deductive-nomological (D-N)
 method 376–7
 Derrida, J.: on phenomenology
 89–90
 description, retroduction,
 elimination and
 identification (DREI) 385,
 390
 digital divide hypothesis 220
 discipline, Foucault on 253–4
 discourse analysis, Foucauldian
 187, 188–9, 265–6
 discourse regulation, principles of
 275–6
 discourse theory 178–80,
 198–203
 discursive action 188, 189, 198,
 199, 200
 discursive communication 199
 discursive rationality 209
 display, etymology 78–9
 distanciation 110–11
 dramaturgical action 183, 190,
 193
 duality of technology 317–19
 Durkheim, Emile, on functionalism
 29
- eidetic reduction 66
 email use, functionalist
 explanation of 39–46
 emancipation 167–8, 169, 171
 emancipatory interest 175–6
 emergence 437
 emic perspectives 28, 51, 119
 empirical reductionism 93, 94
 empiricism 375–7
 enframing (*Gestell*) 90–1
 Enlightenment 264
 episteme 250–1
 epistemic fallacy 382
 epistemological social science 387
 epistemology 5, 6, 7
epochē 65
 equifinality 36
Erkenntnis 174
 essence, phenomenological notion
 of 88
 essential noematic structural
 correlation of consciousness
 67
 ETHICS 410, 413
 etic perspectives 28, 51, 119
 ethnographic present 120–1
 ethnography (Van Maanen) 6, 7
 vs hermeneutics 119, 120–1
 ethnomethodology 89
 evolution, theory of 6
 exchange theory 31
 exclusion, principles of, in
 discourse regulation 275,
 276
 existential phenomenology 71,
 95, 97n.2
 expert witness, Wolfgang as 2, 4,
 5, 7
 explicative discourse 201–2
 external horizon (life world) 64
- false consciousness 169
 falsifiability 4
 falsificationism 377
 first-level constructs (Schutz) 8, 9,
 15, 23n.7
 form of life 82, 83, 86, 98n.18
 formative processes 168
 Foucault, Michel 238–90
 applications to IS 274–88

Foucault, Michel(*continued*)*Archaeology of Knowledge, The*

242, 245, 246–7, 250–1, 260

automate/informate debate and
267–71*Birth of the Clinic, The* 242, 245,
246, 249*Care of the Self, The* 243characteristics of thought
238–9

critical assessments 260–6

on discipline 253–4

Discipline and Punish 243, 245,
247, 253–4, 261, 267

on discourse 265–6

'Discourse on Language, The'
251–2

domains 245

feminist critiques of 266

fundamental concepts and
contributions 248–60

on genealogy 251–3, 264

History of Sexuality, The 243,
245, 247, 255–6, 258

in an 'information age' 266–74

IS as a discipline 271–4

Madness and Civilization 242,
245, 246, 248–9, 261*Mental Illness and Psychology*
242'mode of information' and
285–8'Nietzsche, genealogy, history'
252*Order of Things, The* 242, 245,
249–50, 267organization and management
studies and 278–81

overview of work 242–8

on power/knowledge 254–7,
262–3, 265, 269–71, 275,
284–5

resistance to labelling 240

surveillance, ICT and 282–5

on technology 257–60

Use of Pleasure, The 243

free variation 67

functionalism

concerns and limitations 50–1

criticisms of 29–30

emic 28, 51

essential elements 33–8

etic 28, 51

as grand theory 27–33

in information systems research
46–51

IS illustration 39–45

IS/IT strategic alignment
research 46–9opportunities in research
49–50

origins 28

Parsonian 27, 29–30

genealogy, Foucault on 251–3,
264

general systems theory 32, 410

generative mechanisms 384

genetic algorithms 428, 429

genetic phenomenology 97n.2

Gestell (enframing) 90–1

Giddens, Anthony

Beyond Left and Right 298*Capitalism and Modern Social
Theory* 298*Central Problems in Social Theory*
298*Class Structure of Advanced
Societies, The* 298*Consequences of Modernity, The*
298, 305–6*Constitution of Society, The* 298,
313, 324*Contemporary Critique Historical
Materialism, A* 298*Modernity and Self-Identity* 298,
306*New Rules of Sociological Method*
298, 300*On the Edge* 298, 307, 312*Reflexive Modernization* 298, 307*Runaway World* 298, 307, 311

- Third Way and Its Critics, The* 299, 307–8, 312
Third Way, The 299, 307
Transformation of Intimacy, The 298
 see also structuration
- Gödel's proof 2, 3, 4, 5, 7
 governmentality 256–7
 grand social theories 27–8
 grounded theory (Strauss and Corbin) 6, 7
 vs hermeneutics 119–20
- Habermas, Jürgen
Knowledge and Human Interest 157, 159–63, 165, 169, 171–6, 179
Philosophical Discourse of Modernity, The 161
Science and Technology as Ideology 171
Theory of Communicative Action, The 158, 159, 160, 162, 167, 171, 173, 176, 179, 180, 183–90, 200, 209, 210
Transformation of the Public Sphere, The 164, 169
 see also critical social theory
- Heidegger, M.: *Being and Time* 57, 68, 89, 435
- hermeneutics 14, 90, 103–25, 208
 applications 103–4
 appropriation and engagement 111
 autonomization and
 distanciation 110–11
 critical 105, 112–13, 120–1
 definition 103
 depth 113–14
 double 23n.5, 112
 example 114–16
 forms 111–14
 hermeneutic circle 107–9, 123
 historicity 106
 implications for information systems 104, 121–3
 nature of 105–16
 postmodern 104–5, 112
 prejudice 109–10, 120
 pure 104, 111, 112, 113
 vs critical social theory 121
 vs ethnography 119, 120–1
 vs grounded theory 119–20
 vs non-dialectical position 119–20
 vs phenomenology 118–19
 vs positivism 116–18
- historical discontinuity 246
- Homans, George 31
- horizon of meaning 79
- Human Genome Project 286
- Hume, David, on induction 2–3, 4, 5, 7, 15, 19–23
- Husserl, E.
Cartesian Meditations 57
Crisis of European Sciences and Transcendental Phenomenology, The 57, 67–8
 on intentionality 69
- Husserlian phenomenology 59–67, 89
- hypothetico-deductivism 14, 373–4, 376
- immanent critique 389
- incommensurability paradigm 378
- induction, Hume on 2–3, 4, 5, 7, 15, 19–23
- informatics of domination 288
- information, definition 13
- information systems, definition 1, 10–14
- information technology 10–11, 12, 14
 failure of 12
 resistance to 12
- information theory 14
- inscription 346–8
- institutionalism 29
- instrumental action 183, 185, 186

- instrumental knowledge 176
- intentionality
 as being-in-the-world,
 Heidegger and 67–71
 of consciousness 64, 65
 Husserl's notion 69
- interesement* 342
- interpretive analytics (Foucault)
 274
- interpretive social theory 16
- interpretivism 95, 105, 276
 Adorno on 143–4, 144–5
- interpretivistic approaches to IS
 135–6
- intersubjectivity 88
- intransitive domain 382
- involvement whole 70
- IQ 5
- irreversibility 342–3
- justice, theory of (Rawls) 227
- knowledge interests 172–3
see also cognitive interest
- knowledge system 13
- Kuhn, Thomas: *Structure of Scientific Revolutions, The* 17
- LAS computer-aided despatch
 system, failure of 358–9
- latent groups 37–8
- lifeworld 194–8, 209–10
- lifeworld colonization 203
- lifeworld knowledge 189–90
- lifeworld ontology 190–8
- limitation, principles of, in
 discourse regulation 275,
 276
- logical empiricism 375–6
- logical positivism, discrediting of
 2, 3–4, 5, 7, 16, 17
- macro-sociology 32, 351–2
- manipulation 187
- market forces 35
- materialism 308–10
- means–ends rationality 172, 174,
 175
- Merleau-Ponty, M.: *Phenomenology of Perception* 57
- method 5, 7
- methodology 5, 6–7
- micro-sociology 32, 351–2
- MIT90s model 46–7
- mode of information 285–8
- moments of translation 342
- natural attitude 66, 86
- natural science
 critical realism and 383–5
 relationship between social
 science and 379–80
- negative feedback 50
- neighbourhood relations 417
- neofunctionalism 27–8, 30–2
 criticism of 32
- network-in-use 409, 431–2
- network phenomenology of IS
 408, 413–18
 boundaries 417–18
 connectionist definition of
 networks 414
 epistemological constructs
 438–9
 evaluation 433–6
 implications for IS paradigms
 and practice 436–9
 information and action 415–17
 information content 415
 network connectivity 414–15
 ontological constructs 437–8
 philosophical openings 434–6
 science of complexity 418–27
 tools for studying 427–32
- network power 287
- nexus of relationships 67
- noema* 62, 63, 64, 97n.5
- noematic* structural unity of
 consciousness 66
- noesis* 63, 64

- nomological knowledge 174
 non-dialectical position vs
 hermeneutics 119–20
 normative-fiduciary truth 390
 normatively regulated action 190
- object orientation 135
 objective teleology 52n.3
 obligatory passage point 342
 ontological/alethic truth 390
 ontological social science 386–7
 ontology 5–6, 7
 open coding 7
 ordered regime 426
 organizational efficiency
 tendencies 35
- panoptic power 287
 panopticon 241, 253–4, 261–2,
 270, 284
 Parmenides 84
 Parsonian functionalism 27,
 29–30
 phenomenological method 71–3
 phenomenological reduction 66
 phenomenology 14, 56–95
 consciousness and 61–2, 63,
 64, 65
 critical comments and
 limitations 86–90
 definition 59–71
 Husserlian 59–67
 vs hermeneutics 118–19
 phenomenon of the screen 56, 58,
 72, 73–86, 118–19
 description of screen 72, 73–6
 empirical conclusions 85–6
 essential meaning of screen 72,
 81–5
 etymology of ‘screen’ 72, 76–9
 existing relevant work 90–3
 phenomenological reduction on
 the screen 72, 79–81
 philosophy, definition 1, 2–7
 philosophy of law 5
- Popper, Karl, on scientific theory
 8, 9
 positive feedback 50
 positivism
 discrediting of 2, 3–4, 5, 7, 16,
 17
 vs hermeneutics 116–18
 positivism, Adorno’s rejection of
 140–3, 144–5
 change and 142–3
 as a prohibition on thinking
 141–2
 as uncritical 140–1
 positivistic approaches to IS 135
 posthumanism 259
 post-positivism 164
 power/knowledge, Foucault on
 254–7, 262–3, 265, 269–71,
 275, 284–5
 practical discourse 201
 practical interest 175
 practical knowledge 176
 pragmatism 377
 problematization 342
 process theory 9
 psychological reductionism 93,
 95
 punishment 29
 purposive-rational action 185
- rational action 180–4
 rational discourse, meaning of
 203–10
 objections to 207–9
 rationality 172
 reason
 dialectical 147
 historicity of 264
 pure 148
 technological 148
 theory of 264
 reduction 65–6
 referential detachment 397
 referential-expressive truth 390
 referential whole 64, 88
 reflexive modernization 320–1

- reflexive philosophy 160
 regulative speech acts 205
 relational social science 387–8
 relevant social groups (RSG) 338, 339
 representative speech acts 205
 repression, psychological 169
 retroduction 385, 390
- science of complexity 418–27
 Schön, D.A.: *Reflective Practitioner, The* 3–4
 Scott Morton, M.: *Corporation of the 1990s, The* 271
 Scottish Moralists 28
 screen
 etymology 76–9
 phenomenon of 56, 58, 72, 73–86, 118–19
 second-level constructs (Schutz) 8, 9, 15, 23n.7
 seeing as cognition 83–4
 selective coding 7
 self-evident presence 89–90
 self-formative processes 160
 self-organization, concept of 438
 7-S Model (McKinsey) 47
 sexuality, discourse of 256
 shared knowledge 202
 ship of fools 261, 262
 Simon, Herbert: *Sciences of the Artificial, The* 17
 social action 159
 social conflict 30
 social construction of technology (SCOT) 332, 334, 335, 338–41
 conceptual tools 348–50
 critiques 351–6
 interpretive flexibility 340
 relevant social groups (RSG) 338, 339
 stabilization and closure 339–40
 technological frames 340–1
 problem of studying gender 353–5
 social science
 critical realism and 385–8
 relationship between natural science and 379–80
 social shaping of technology (SST)
 approach 329–64
 amoral/apolitical stance 352–3
 content of technology 356
 critique 350–6
 description rather than explanation 355–6
 focus on development 350
 gender and 353–5
 historical context 331–6
 implications for IS research 357–63
 limited analysis of social structures 351
 macro–micro issues 351–2
 power and politics 358–9
 problem of generalized symmetry 355
 social shaping approach 337–8
 strategies for dealing with power and IS using 357–9
 theoretical approaches 336–50
 social structure 33
 social system 13
 social theory, definition 1, 7–10
 sociology of knowledge 14
 sociology of scientific knowledge (SSK) 334, 338, 378–9
 sociology of translation 341
 sociotechnical systems 12–13
 Soft Systems Methodology 410, 413
 Spiegelberg, Herbert:
 Phenomenological Movement, The: A Historical Introduction 58
 strategic action 183, 186
 structural coupling 417
 structuralism 246–7

- structuration (Anthony Giddens) 297–323
 agency 304, 310–11
 application in IS research 315
 applications and extensions in IS research 314–19
 critical assessment
 attitude to empirical research 308, 312–14
 interest in IT 312
 materialism 308–10
 scope of application 308, 311–12
 time 308, 311
 voluntarism 308, 310–11
 duality of technology 317–19
 extension of 316–19
 IS research and 299–300
 radical modernity 305–6
 risk society 306–7
 rules and resources 303–4
 structure 301–3
 theory 300–4
 Third Way 307–8
 time, space and routines 304–5
 structurally informed theory of IS 319–20
 subjective teleology 52n.2
 surveillance, ICT and 282–5, 286
 suspicion, hermeneutics of 114
 system–lifeworld distinction 180, 197–8, 203
 systems analysis and design methodology (SSADM) 410
 systems dynamics 50, 410
 systems-in-the-world 436
 systems-in-use 413–14
 systems theory 10
- technical interest 174
 technicity 258
 techno–biopower 288
 technological frames 33
 technologies-in-practice 33, 320
 technologies of the self 259
- technology
 Foucault on 257–60
 Heidegger on 258
 technology system 13
 teleological action 181, 193
 teleological argument 30
 text-analogue 103, 105, 106, 108, 110, 122, 123
 theoretical discourse 201
 theory 7–8
 therapeutic critique 201
 thought worlds 33, 37
 three-world ontology 190–8
 thrownness, Heidegger's notion of 92
 time–space distancing 311
 tool or equipment whole 69
 transcendental domain 381
 transcendental idealism 68
 transcendental, notion of 59, 61
 transcendental phenomenology 68, 71, 97n.2
 transcendental realism 380
 transcendental subject 138
 transformational model of social action (TMSA) 392
 transition regime 426
 transitive dimension 384
 truth 202, 206
 truthfulness 202
- universal pragmatics 170, 198, 199, 208, 209
 universalization principle 207
- variance theory 9
 viable systems methodology 410
 voluntarism 308, 310–11
- weak leadership 37–8
 Wolfgang's account as expert witness 2, 4, 5, 7
- Zuboff, S.: *In the Age of the Smart Machine* 267–71