

Index

Page numbers in *italic type* refer to figures.

- 2Africa network 164
- 4th Data Power Conference, June 2022 1, 4, 6, 216, 217
- 5G systems 165
- 2020 Computing Curricula 194
- 2020 European Strategy for Data 145
- A**
- Abma, T. 145
- access to data 54
 - Canada 64–65
- Access to Information Act, Canada 64
- accountability, of schools in England 38
- ACID (atomicity, consistency, isolation, and durability) properties of data systems 196–197
- ACM FAccT (fairness, accountability, and transparency in computing) 205
- action research 65, 173
- activists
 - ADS interventions 104, 111–112
 - see also* community activism; data activism
- activity tracking apps 14
- ADJRP (Advancing Data Justice Research and Practice Group) 41
- ADS (automated data systems)
 - activists, journalists and community interventions 104, 111–112
 - see also* data systems
- Africa, data infrastructures 164
- African Union building, Addis Ababa, Ethiopia 166
- ageing 2, 11
 - ageing in place 17, 18, 25
 - ageist stereotypes 18
 - social isolation 17–18
 - successful 17, 18, 25
 - see also* older adults
- Agre, Philip E. 122, 190
- Ahmed, S. 85
- AI (artificial intelligence) 4, 92
 - ‘AI for good’ narrative 167
 - APIs (Application Programming Interfaces) 194
 - bias in 19–20
 - as a boundary object 204–205, 206–207
 - as a ‘canonical object’ 6, 186–188, 203–206
 - ChatGPT 3.5 196
 - computer science (CS) 193–195
 - computer science curricula 192–193, 204
 - critical data studies (CDS) 195–196
 - data systems 188–190
 - (de)professionalizing boundary objects 206–207
 - law 190–191
 - political philosophy 191–192, 204
 - data production for 121, 124–126, 132
 - data systems 188–190
 - democratic control over in the local public sector 104, 108–109, 116
 - environmental issues 121–122, 127, 128, 160, 161, 167–169
 - ethical issues 11, 153
 - AVs (autonomous vehicles) 19–20
 - green AI 160
 - insightfulness 198
 - layers in 195
 - meaningful consent 83–84
 - Montreal Declaration for a Responsible Development of Artificial Intelligence 174
 - ‘neats’ 189
 - origins of 193–194
 - participatory governance 90
 - ‘responsible AI’ 5
 - ‘scruffies’ 189
 - SE (software engineering) 193
 - software engineering (SE) 103
 - spatial politics 159, 161
 - Park-Ex AI ecosystem, Montreal, Canada 3, 5, 161, 167–168, 169–175, 176

- studying and teaching of 188–196
- ‘Tiny AI’ 168
- AI World Summit in the Americas, 2022 167
- air pollution, SOCIO-BEE project 139, 145, 146
- Airbnb 126
- Alan Turing Institute, The 41
- algorithms 195
 - algorithmic bias 103, 104–106, 114
 - algorithmic violence 167, 169, 176
 - and democracy 192
 - frictions in infrastructure of 53, 55–57, 71
 - philosophy 193
 - trust 201
- Alhutter, Doris 24–26
- Alphabet 165
- Amadori, Gaia 32–33, 35–37, 40, 42, 45
- Amazon
 - Amazon Mechanical Turk 126
 - data exchange programme 84
- Ameland, Katrin 22–24
- amphibious infrastructural data
 - power 161–164
- Aneesh, Aneesh 125
- Apple 165
- appropriation of data 120–121, 123, 125, 130
- ARPANET 165
- artificial intelligence (AI) *see* AI (artificial intelligence)
- asylum-seekers, PECC (Parc-Ex Curry Collective) 174–175
- austerity policies, UK 104–105
- Australia, Robodebt fraud detection system 112
- Automated Vessel Identification System 143
- autonomous servers 161
- AVs (autonomous vehicles) 2, 18–20, 21, 22–23, 24–25
- AWS 141
- B**
- Babbage, C. 189, 196
- Barad, Karen 143
- Bargetz, Brigitte 25
- Baumann, Yaya 169–170
- Beer, Stafford 195
- Bengio, Yoshua 174
- benign computing 168
- Benjamin, Ruha 97
- Bentley, Caitlin 115–116
- Beresford, Hadley 103, 104–106, 111, 116
- Bermuda 163
- Bhargava, R. 150
- bias 19–20, 41, 205
- Biddingo 63
- big data 7, 123, 151, 196
- Big Tech expansionism, Sphere Transgression Watch 66–69, 68, 69, 70, 72
- biometrics 123–124, 130
- black boxes 55, 58
- ‘black swan’ events 148
- Bloch, Max 129
- blockchain technology 200
- bodies (AI layer) 195
- Bonney, Rick 140
- Boole, G. 189, 190, 196
- Boston Marathon terrorist attack 130
- boundary objects 187, 188, 205–206
 - (de)professionalization of 206–207
 - roles of 204–205
- Bowker, G. C. 14, 147
- braid image 1–2, 32, 32, 42, 44–45, 220
- Brevini, Benedetta 5, 121–122, 127–128, 131, 132
- Brighenti, A. M. 147
- Brodie, Patrick 138–139, 140–142, 220
- Bryant, B. D. 200
- bullying, online 130
- business (AI layer) 195
- C**
- call centres 125
 - see also* data centres
- Cambridge Analytica scandal, 2014 164, 199
- Canada
 - PIPEDA (Personal Information Protection and Electronic Documents Act) 82
 - state surveillance 63–65, 71
 - see also* Parc-Ex, Montreal, Canada
- canons, in education 4, 6, 186–199, 203–206
 - AI (artificial intelligence) 188–196
 - boundary objects 187, 188, 204–207
 - ‘canonical objects’ 187, 188
 - list of 188, 207
 - trust 196–203
- CAPE (Comité d’action de Parc-Extension), PEAMP 171–172
- capture, coloniality of 122, 124, 129
- Carbon Brief 149
- carbon budgets 147
- carbon counting 139–140, 147–148
- carbon emissions data 73
- carbon sinks 147
- care-ful reflexivity 107, 116
- Carleton University, Canada 216
- Casilli, Antonio 126
- CBAR (community-based action research network), Parc-Ex, Montreal, Canada 173–175
- CDS (critical data studies) 1, 4, 6–78, 22, 103, 104, 108, 115, 131, 195–196, 202–203, 204, 206, 215–216, 218–219, 220 *see* critical data studies (CDS)
- Center for Medicare and Medicaid Services (CMS) 59, 61
- Cerratto Pargman, Teresa 113–115
- Césaire, A. 123
- ChatGPT 128, 203

- ChatGPT 3.5 187, 196
 - children, as data subjects 2, 4, 31–33, 32
 - data economy 43
 - data justice 33, 40–42, 44, 47
 - educational data analysis, secondary schools in England 2, 31, 33, 37–40, 42, 45, 46
 - family privacy practices, Italy 2, 31, 32–33, 35–37, 40, 42, 45
 - ‘sharenting’ practices, USA 2, 31, 32, 32, 33–35, 36, 40, 42, 45
 - China 164, 165, 166
 - China Mobile 164
 - CIFAR 168
 - citizen assemblies/juries *see*
 - participatory governance
 - citizen science 139, 145–146, 153
 - European Citizen Science Association, 10 Principles of Citizen Science 146
 - Civics of Technology project 46
 - civil registration and vital statistics (CRVS) systems 108
 - climate budgets 148
 - climate change 162
 - data vis (data visualizations) 140, 148–150, 152
 - data-driven monitoring of 139–140, 147–148
 - Climate Outreach 149
 - Climate Science 149
 - Cloud Act, US 166
 - cloud infrastructure 165
 - CMS (Center for Medicare and Medicaid Services) 59, 61
 - coastlines, amphibious infrastructural data power 161–162
 - collective agency 4, 81, 86–88
 - collective writing process 8, 215–220
 - colonialism
 - and subsea telecommunications 162, 163
 - see also* data colonialism
 - coloniality 126
 - of capture 122, 124, 129
 - Comité d’action de Parc-Extension (CAPE), PEAMP 171–172
 - commercial privacy context 35–36, 36–37
 - Commission for the Regulation of Utilities, Ireland 142
 - community activism 81, 88–90, 94
 - ADS interventions 104, 111–112
 - see also* data activism
 - community housing projects, Montreal, Canada 170
 - community mapping 161
 - PEAMP (Parc-Ex Anti-Eviction Mapping Project) 171–173
 - Community Power Map, PEAMP 171, 172
 - community-based action research network (CBAR), Parc-Ex, Montreal, Canada 173–175
 - computer science (CS)
 - AI (artificial intelligence) 188–190, 193–195
 - computer science curricula 192–193
 - trust 200–201
 - computer security 200–201
 - Computer Vision 194
 - computing sufficiency and self-sufficiency 168
 - conferences 205
 - configuring of data subjects 2, 4, 7, 10–12, 20–22
 - AVs (autonomous vehicles) 2, 18–20, 21, 22–23, 24–25
 - design decisions and the history of data 12, 13, 14, 21, 22, 24, 25–26
 - individual and socio-technical practices 22–24
 - inseparability of individual and collective 24–26
 - older adults 2, 16–18, 21, 22, 23, 25
 - power dynamics in 20–21, 24–26
 - self-tracking 15–16, 21, 22, 23–24, 25
 - consent
 - informed consent 191, 198
 - meaningful consent 83–84
 - conviviality 97
 - Couldry, Nick 3, 120–121, 124, 126, 131
 - counter-mapping, PEAMP (Parc-Ex Anti-Eviction Mapping Project) 171–173
 - COVID–19 pandemic, ‘following the data’ 104, 111, 116
 - CPPAs (corporate power purchase agreements), Ireland 141–142
 - critical companionship 85
 - critical data studies (CDS) 1, 4, 6–78, 22, 103, 104, 108, 115, 131, 206, 215–216, 218–219, 220
 - AI (artificial intelligence) 195–196
 - trust 202–203, 204, 219
 - Crooks, Roderic 88–90
 - CRVS (civil registration and vital statistics) systems 108
 - CS (computer science) *see* computer science (CS)
- D**
- Dalmer, Nicole 2, 16–18, 21, 22, 23, 25
 - Dalton, C. M. 152, 171
 - data accumulation 120
 - see also* data colonialism
 - data activism 3, 4, 5, 88–90, 94, 161, 176, 177
 - Parc-Ex, Montreal, Canada 173–175
 - see also* data counter-power
 - Data Against Feminicide 94–95
 - data assemblages 32, 220
 - data centres
 - data counter-power 160–161

- environmental impacts of 5, 124–126, 128, 138–139, 140–142
- resistance to 163
- data citizenship 177
- data colonialism 3, 6, 7, 120–122, 130–131
 - ambiguity of 131–132
 - capture and colonial violence 121, 122–124, 132
 - data production for AI 121, 124–126, 132
 - environmental issues 121–122, 127–128, 131, 132
 - medieval feudalism 3, 122, 129–130, 131
 - spatial data colonialism and amphibious infrastructural data power 161–164
- data commons 161
- data contexts 110, 116
- data counter-power 160–161, 177
- data disaggregation 107–108
- data economy, and children 43
- Data Ethics Decision Aid (DEDA) 65–66, 71
- data experts 21–22
- data extraction/extractivism 45, 120–121, 124, 125, 126, 131
- data feminism 94, 114
- Data for Black Lives 94
- data forgetting 197
- data funnel 12, 13, 14, 21, 22, 25–26
- data futures 3, 32, 38, 40, 42, 44, 104, 113, 220
- data infrastructure
 - amphibious infrastructural data power 161–164
 - ‘weaponization’ of 165
 - see also* digital infrastructure; digital sovereignty
- data journeys 57–59, 72
- data justice 2, 90, 132, 177
- Data Justice Lab, UK 91, 111
- data literacy 87, 104, 109, 113–114, 160
- data power 1–2, 175–176, 176–177
 - amphibious infrastructural data power 161–164
 - data counter-power 3, 160–161
 - hegemonic 3, 159–160, 165, 166
 - historical inequalities 7
 - powering data 3, 160, 176
 - see also* environmental data power; responses to data power
- data practitioners *see* practitioner interventions
- data privacy 122, 160
- data science (DS)
 - education 4, 5, 6–7, 109–110, 205–206
 - AI (artificial intelligence) 188–190
 - trust 201–202, 204
- data sovereignty 160–161, 176, 177
- data studies
 - interventions in 2–3, 6, 52–53
 - see also* in/visibilities, in data studies
- data subjects
 - informed consent 191, 198
 - meaningful consent 81, 82–84
 - see also* children, as data subjects; configuring of data subjects
- data systems
 - ACID (atomicity, consistency, isolation, and durability) properties of 196–197
 - AI (artificial intelligence) 188–190
 - trust 196–197
- data, trustable 201
- data vis (data visualizations), climate change 140, 148–150, 152
- data work 103–104, 113–115
 - categories of 104, 109–111
 - data colonialism 121, 124–126, 132
 - good practice in 110–111, 114
 - Madagascar, low-paid data workers 6, 121, 124–125, 126, 130
 - outsourcing of 124–126
 - tropes and diversity 115–116
 - see also* practitioner interventions
- datafication
 - participatory governance of 81–82, 90–92
 - see also* configuring of data subjects
- datasets, historical contingencies of datasets’ forms 59, 60, 61, 62, 63–64
- de Groot, Aviva 190–191, 197–199
- Deckard, Sharae 141
- ‘decoloniality’/‘decolonization’ 132
- DEDA (Data Ethics Decision Aid) 65–66, 71
- ‘deficit model’ of science communication 202
- degrowth computing 168
- democracy 199
 - and algorithms 192
 - ‘democratic innovations’ 90–91, 92
- Dencik, Lina 40
- DENDRAL 194
- design, ethical issues in 65
- Dickinson, Janis L. 140
- digital capitalism 120, 139
- ‘digital coloniality’ 126
- ‘digital colonialism’ 121, 126, 131
- ‘digital disruptors’ 168
- Digital Divides research project, Parc-Ex, Montreal, Canada 173–175
- digital identity, of children 34–35
- digital infrastructure 5, 14
 - see also* data infrastructure
- ‘digital pillories’ 129–130
- digital sovereignty 164–167
- digital twinning 11
- D’Ignazio, Catherine 5, 94–95, 150
- DIPLab 125
- disability 2
 - disability data science 11
 - road safety, and AV (autonomous vehicles) 19, 24–25
 - welfare benefit application process 12, 14, 24, 25–26

- displacement 168
 - Parc-Ex, Montreal, Canada 3, 5, 161, 170, 171
- Dodge, M. 172–173
- DPAs (Data Protection Authorities), EU 85
- DS (data science) *see* data science (DS)
- E**
- EDJ (environmental data justice) *see* environmental data justice (EDJ)
- egalitarian data justice 177
- Eirgrid 142
- elected representatives, democratic control
 - over data and AI projects in the local public sector 104, 108–109, 116
- Element AI 167
- Ellul, Jacques 46
- emotions 25
 - climate change data vis (data visualizations) 140, 148–150, 152
- encryption 161
- energetic data power 5, 138–139, 140–142
- energy consumption 5, 121, 127, 128, 160, 168
 - see also* environmental issues
- energy transitions 139
- England, educational data analysis in
 - secondary schools 2, 31, 33, 37–40, 42, 45, 46
- enumeration 107–108
- environmental data justice (EDJ) 94, 151–152
- environmental data power 3, 138–140, 150–151, 160, 216, 220
 - data visualizations of climate change 140, 147–150, 152
 - data-driven representations of climate change 138, 139–140, 147–148
 - energetic data power 138–139, 140–142
 - environmental data justice (EDJ) 94, 151–152
 - environmental sensing 138, 139, 142–144, 152
 - fair environmental data power 139, 145–146
- environmental issues 164
 - AI (artificial intelligence) 121–122, 127, 128, 160, 161, 167–169
 - data centres 5, 124–126, 128, 138–139, 140–142
 - data colonialism 121–122, 127–128, 131, 132
- environmental justice 3, 5, 140
 - environmental data justice (EDJ) 94, 151–152
- environmental sensing 138, 139, 142–144, 152
- epistemic reflexivity 107, 116
- ‘Ethical and Legal Challenges in Relationship with Emerging AI-driven Practices in Higher Education’ project 114
- ethical issues 92, 114, 115
 - AI (artificial intelligence) 11, 153
 - AVs (autonomous vehicles) 19–20
 - data practitioners 3
 - data science (DS) education 205–206
 - in design 65
 - environmental sensing 144
 - ethics of care 103–104, 107, 116
- ethnography, frictions in algorithmic infrastructure 53, 55–57, 71
- Eubanks, V. 105
- European Asylum Dactyloscopy Database (EURODAC) 124
- European Citizen Science Association, 10 Principles of Citizen Science 146
- European Union (EU)
 - 2020 European Strategy for Data 145
 - AI Act 165
 - digital sovereignty 165, 166
 - DPAs (Data Protection Authorities) 85
 - FRONTEX 143
 - GDPR (General Data Protection Regulation) 82, 85, 86
 - Horizon grant programmes 205
 - SOCIO-BEE project 139, 145, 146
- Evoke Lab, UC Irvine 89
- e-waste 127, 128
- expert systems 194
- F**
- Facebook 121, 126, 149, 165, 192
- Fahimi, Miriam 55–57, 71
- fair environmental data power 139, 145–146
 - see also* environmental data power
- Fair Information Practice Principles 82
- ‘fairness, accountability and transparency’ in computing 5, 205
- Falk, Petter 65–66, 71
- femicide data activism 94–95
- feminism 144
 - data feminism 94, 114
 - feminist ethics of response-ability 6
 - feminist science and technology 72–73, 74
- Fernández-Ardéval, M. 18
- feudalism, medieval 3, 122, 129–130, 131
- fingerprinting 123
- Fletcher, George 188–190, 196–197
- ‘following the data’ 104, 111, 116
- forgotten, right to be 41–42
- Forum AI 167
- Fotopoulou, Aristeia 94
- Foucault, Michel 130
- France
 - digital sovereignty 164, 166
 - French language speakers 125
- Fratczak, Monika 140, 148–150, 152
- Freedom of Information Act (FOIA), Netherlands 87
- freedom of information, Canada 64–65

- free/open source software 161
- Frenzel, Janna 167–169
- frictions, in algorithmic infrastructure 53, 55–57, 71
- FRONTEX, EU 143
- Fubara-Manuel, Irene 121, 122–124, 128, 132
- Fuchs, C. 120
- G**
- Gabrys, Jennifer 140, 152
- Galton, Francis 123
- Gansky, B. 65
- GDPR (General Data Protection Regulation), EU 82, 85, 86
- GE 142
- gender, in personal data 56
- gender-related violence, feminicide data activism 94–95
- General Data Protection Regulation (GDPR), EU 82, 85, 86
- gentrification 159, 164, 168
 - Parc-Ex, Montreal, Canada 3, 5, 161, 169–170, 171, 172
- Georgia Tech (Georgia Institute of Technology) 45
- ‘getting in the way’ 85
- Gkotsopoulou, Olga 139, 145–146
- Gleeson, J. 172–173
- Global Partnership on AI, The 41
- ‘global statistical community’ 103, 106
- Goldstein, Jenny 140
- Google 10, 45, 121, 128, 165, 166, 167, 200, 217, 218
- ‘gotcha clauses,’ in terms and conditions 82–83
- Göteborg University 66
- government procurement research, Canada 63–64
- Grant, Lyndsay 33, 37–40, 42, 45, 46
- Gray, Jonathan W. Y. 72–74
- Green, B. 105
- green capitalism 153
- greenhouse gas emissions
 - data colonialism 127–128
 - see also* climate change
- Greenpeace 149
- greenwashing 167, 169
- Grenier, L. 18
- Griesemer, J. R. 187
- Groot, B. 145
- ‘grotesque accumulation’ 94
- Guay, Emanuel 169–170
- Gutiérrez, M. 171
- H**
- Halkert, Monika 139, 142–144, 152
- Haraway, Donna 6, 7, 73, 219
- HCI (Human–Computer Interaction) 200
 - health sector, UK, data journeys 57–59, 72
 - Heath, Marie K. 44–47
 - hegemonic data power 3, 159–160, 165, 166
 - Herschel, William 123
 - Hintz, Arne 40, 90–92
 - Hoffman, A. L. 105
 - Hogan, Mél 140
 - Horizon grant programmes, EU 205
 - housing issues
 - Parc-Ex, Montreal, Canada 167, 168, 169–170, 174
 - PEAMP (Parc-Ex Anti-Eviction Mapping Project) 171–173
 - Hoyng, Rolien 139–140, 147–148
 - human rights, and data justice for children 41
 - Human–Computer Interaction (HCI) 200
 - ‘humanistic turn’ in computer science and data science 190
 - humanitarian organizations 131
 - humanities disciplines 186, 203, 205, 206
 - hydroelectricity 167
- I**
- IAMs (Integrated Assessment Models) 147
- Ibrahimi, Mergime 18–19, 21, 22, 24–25
- ‘if/then’ logic 139, 140, 147, 148
- Illich, I. 97
- indigenous communities
 - data colonialism 124
 - data infrastructure 162
 - land repatriation 132
 - mining of metals and minerals 127
- Indigenous Data Sovereignty 94, 160–161
- indigenous knowledge 160–161
- informed consent 191, 198
- insightfulness 198
- Instagram 149
- Institut Français 125
- institutional privacy context 35–36, 37
- instrumental reflexivity 107, 116
- Integrated Assessment Models (IAMs) 147
- intelligence
 - computer science and data science 188–190
 - law 190–191, 204
 - see also* AI (artificial intelligence)
- international development organizations 131
- Internet 33, 34, 35, 66, 82, 84, 120, 121, 129, 162, 165, 176, 187
 - see also* social media
- interpersonal privacy context 35–36, 37
- interpersonal relationships, trust in 203
- interventions
 - in data studies 2–3, 6, 52–53
 - see also* practitioner interventions
- Investment Québec 167
- in/visibilities, in data studies 2–3, 6, 52–55, 69–72, 72–74
 - data journeys 57–59, 72
 - DEDA (Data Ethics Decision Aid) 65–66, 71

- frictions in algorithmic infrastructure 53, 55–57, 71
- historical contingencies of datasets’
 - forms 59, 60, 61, 62, 63–64
 - methods 2–3, 6, 52–59, 71
 - performativities 53–55
- Sphere Transgression Watch 66–69, 68, 69, 70, 72
- state surveillance, Canada 63–65, 71
- Ireland
 - data infrastructures 163–164
 - energetic data power 138–139, 140–142
- Irwin, Alan 140, 145
- Italy, family privacy practices 2, 31, 32–33, 35–37, 40, 42, 45
- J**
 - Jandrić, P. 215, 219
 - Jansen, Fieke 86–88
 - Jensen, Jakob Linnaa 122, 129–130, 131
 - Jia, Xiufeng 15–16, 21, 23, 25
 - Jimenez, Andrea 6, 131–132
 - journalists, ADS interventions 104, 111–112
 - justice
 - ‘sphere transgressions’ 66
 - see also [data justice](#); [environmental data justice](#) (EDJ); [environmental justice](#); [law](#)
 - ‘just-in-time’ notices 83
- K**
 - kaleidoscope metaphor 1–2, 52–53, 69–70, 71, 72
 - Karch, B. 200
 - Karlstad University 66
 - Kaun, Anne 92–94
 - Keyes, O. 202
 - Kinder-Kurlanda, Katharina 55–57, 71
 - King, Leonora 173–175
 - Kitchin, Rob 172–173, 175–177
 - Kōnāi, Rajyadhar 123
 - Krutka, Daniel G. 44–47
 - Kumar, Priya C. 2, 32, 32, 33–35, 40, 42, 45
 - Kuokkanen, R. 219
- L**
 - labour (AI layer) 195
 - land repatriation, indigenous people 132
 - Lannerö, P. 82
 - large language model (LLM) 187, 193
 - Laser 112
 - Lauriault, Tracey 216
 - law
 - AI (artificial intelligence) 190–191, 195, 204
 - legal issues, data practitioners 3
 - trust 191, 197–199
 - Law, John 54–55, 70
 - Le Ludec, Clément 6, 121, 124–126, 132
 - Lehuedé, Sebastián 140
 - Leibniz, G. W. 189, 190, 196
 - libertarian data justice 177
 - Library of Missing Datasets 73
 - Light, Evan 63–65, 71
 - limits-aware computing 168
 - lithium 127
 - LLM (large language model) 187, 193
 - Llull, R. 189
 - local public sector, democratic control over
 - data and AI projects 104, 108–109, 116
 - logical reasoning 189
 - Lomborg, Stine 92–94
 - Los Angeles, Stop LAPD Spying
 - Coalition 112
 - Lucas Plan 97
 - Luddites 97
 - Lupton, D. 31
- M**
 - machine learning (ML) 128, 168, 189, 193, 194, 196
 - macOS High Sierra 200
 - Madagascar, low-paid data workers 6, 121, 124–125, 126, 130
 - Madianou, Mirca 127
 - Maharawal, M. M. 171
 - marginalized communities 19, 24, 105, 191
 - data colonialism 7, 126, 131, 132
 - Parc-Ex, Montreal, Canada 169–173
 - responses to data power 80, 90, 91, 96
 - spatial politics 160, 169, 170
 - marine environmental sensing 138, 139, 142–144, 152
 - Mascheroni, Giovanna 15, 32–33, 35–37, 40, 42, 45
 - Mayer-Schönberger, Viktor 197
 - McCarthy, John 194
 - McDonald, S. 65
 - McElroy, E. 171
 - McGeachey, Ellouise 63–65, 71
 - McQuillan, Dan 5, 96–98
 - MDGs (Millennium Development Goals) 107
 - meaningful consent 83–84
 - media 199
 - medicine, technological complexity
 - argument 198
 - medieval feudalism 3, 122, 129–130, 131
 - Mediterranean Sea, environmental
 - sensing 139, 142–144
 - Meenbog Wind Farm, Donegal, Ireland 141
 - Megelas, Alex 173–175
 - Mejias, Ulises A. 3, 120–121, 124, 126, 131
 - MERX 63
 - Meta 164, 165, 167
 - methods, in data studies 2–3, 6, 53–59, 71
 - Microsoft 165, 166, 167
 - energy supplies, Ireland 141, 142
 - Microsoft Azure 166

- migration, and data colonialism 121, 123–124
- MILA (Quebec Artificial Intelligence Institute) 167, 168
- Milan, Stefania 94
- Millennium Development Goals (MDGs) 107
- Minc, A. 164
- mining, of metals and minerals 127
- Minsky, Marvin 194
- ML (machine learning) 128, 168, 189, 193, 194, 196
- mobility *see* AVs (autonomous vehicles)
- Montreal, Canada, Parc-Ex and spatial politics 3, 5, 161, 167–168, 169–175, 176
- Montreal Declaration for a Responsible Development of Artificial Intelligence 174
- Moore, Jason 141
- Muis, Iris 104, 108–109, 111, 116
- MYCIN 194, 202
- N**
- Nærland, T. U. 149
- NATO, military and maritime surveillance 143
- Natural Language Processing (NLP) 194
- ‘neats,’ in AI (artificial intelligence) 189
- Nelson, I. L. 152
- neoliberalism, children as data subjects 2, 33, 34, 44, 45, 47
- Netherlands
 - data work and local councils 104, 108–109, 116
 - DEDA (Data Ethics Decision Aid) 65–66
 - Freedom of Information Act (FOIA) 87
 - Top400 youth crime prevention system 86–88
- neurology, and law 190
- New World Information and Communication Order movement 164
- Newman-Griffis, Denis 7, 12, 13, 14, 21, 22, 24, 25–26
- NLP (Natural Language Processing) 194
- Nora, S. 164
- Nost, Eric 94, 140, 151–153
- Nova Scotia 163
- O**
- O’ahu, Hawaii 163
- Obar, Jonathan 82–84
- older adults
 - configuring of as data subjects 2, 16–18, 21, 22, 23, 25
 - negative perceptions of 2
 - self-tracking of lives and bodies 2, 16–18
 - social isolation 17–18, 25
- Oman, Susan 104, 109–111, 116
- ‘omnopticon’ 129
- online consent issues 82–84
- online rating services 130
- online witch hunts 130
- Qnūqha, Mimi 73, 167
- open data portals 73
- Open Payments system, USA 59, 60, 61, 62, 63–64
- Orange 164
- organizations, trust in 203
- outsourcing, of data work 124–126
- P**
- Padios, Jan 125
- Pandas 194
- Pangrazio, Luci 43–44, 45
- Pantzar, M. 23
- Parc-Ex, Montreal, Canada 3, 5, 161, 167–168, 169–175, 176
 - CBAR (community-based action research network) 173–175
 - PEAMP (Parc-Ex Anti-Eviction Mapping Project) 171–173
 - PECC (Parc-Ex Curry Collective) 174–175
- ‘partial participation’ 91
- participatory governance 4, 90–92
- PEAMP (Parc-Ex Anti-Eviction Mapping Project) 171–173
- PECC (Parc-Ex Curry Collective) 174–175
- Pei, Lucy 88–90
- Peirce, C. S. 189
- Peled, Nirit 86, 87–88
- people’s practices, in response to data
 - power 3, 4–5, 80–82
 - collective agency 4, 81, 86–88
 - community activism 81, 88–90, 94
 - contextual research practices 92–94
 - data literacy 81
 - discussants 94–96
 - meaningful consent 81, 82–84, 97
 - participatory governance 90–92
 - refusal, as agency 81, 84–86
- Perea, Itzelle Medina 57–59, 72
- Peres, Shimon 193
- performativities, in data studies 53–55
- personal data
 - gender in 56
 - see also* consent
- Personal Information Protection and Electronic Documents Act (PIPEDA), Canada 82
- Philippines 125
- philosophy *see* political philosophy
- Physician Payments Sunshine Act 2013, USA 59
- PIPEDA (Personal Information Protection and Electronic Documents Act), Canada 82
- platform capitalism 120, 126, 129, 152
- Poechhacker, Nikolaus 55–57, 71

Poirier, Lindsay 59, 60, 61, 62, 63–64

policing

predictive policing of racialized communities 112

Stop LAPD Spying Coalition 112

political philosophy

AI (artificial intelligence) 191–192

boundary objects 204

trust 199–200

politics of care approach 113

Pop Stefanija, Ana 84–86

Postman, Neil 46

potentiality risk 32, 34, 42, 45

power dynamics 66

configuring of data subjects 20–21, 24–26

self-tracking 15–16

see also responses, to data power

practitioner interventions 3, 5, 7, 103–104, 112–113

activists, journalists and community interventions 104, 111–112

data scientists and algorithmic bias in the public sector 104–106

data work categories 109–111

discussants 113–115, 115–116

local public sector control over data and AI 108–109, 116

sustainable development data practitioners 103, 106–108

see also interventions

PredPol 112

privacy

and meaningful consent 81, 82–84

privacy-protection, Italian families 33, 36, 42

probabilistic reasoning 189

ProkidPlus 86–87

public administration, DEDA (Data Ethics Decision Aid) 65–66

public shaming 122, 129–130

public spheres 199–200

PyTorch 194

Q

QuantCrit 94

Quebec Artificial Intelligence Institute (MILA) 167, 168

queer data 94

Quinn, Paul 139, 145–146

R

racialized communities 80, 91, 123, 143, 177
predictive policing 112

Radboud University, Hub for Digitalization and Society 67

rating services 130

reasoning, logical and probabilistic 189

Redden, Joanna 40, 104, 111–112, 116

‘reflective design’ 65

reflexivity of data practitioners 107, 116

refusal

as agency 81, 84–86

critical 113

renewable energy, energetic data power 139, 141–142

Renkema, Elise 104, 108–109, 111, 116

Renzi, Alessandra 167–169

research design, core elements of 54–55

resistance 96–97

see also people’s practices; refusal

response-abilities

to each other 6–7

shifting of 1–2, 4–8

‘viral response-abilities’ 6

responses to data power 3, 4–5, 80–82

collective agency 81, 86–88

community activism 81, 88–90, 94

contextual research practices 92–94

data literacy 81

discussants 94–96

meaningful consent 81, 82–84, 97

participatory governance 90–92

refusal, as agency 81, 84–86

spatial politics 5

responsible data-driven systems, design and implementation of 5

responsible mediators, parents and teachers as 4, 36

Ricaurte, Paola 95

Rio+20 Conference on the Environment and Development 107

risk

and children, as data subjects 2, 34

potentiality risk 32, 34, 42, 45

road safety see AVs (autonomous vehicles)

Robodebt fraud detection system 112

Robotics 194

Röhle, Theo 65–66, 71

Rone, Julia 164–167

Rowland, M. 200

Ruckenstein, M. 23

Russia, digital sovereignty 164

S

Saiedian, H. 200

salinity, of water 143–144

SAP Ariba 63

Saxena, Akarti 193–195, 201–202

science communication, ‘deficit model’ of 202

scikit-learn 194

‘scruffies,’ in AI (artificial intelligence) 189

SDA (‘Sustainability for the Digital Age’) 168

SDGs (Sustainable Development Goals) 106–108

SE (software engineering) see software engineering (SE)

Séailles, Gabriel 188

- seas, environmental sensing 138, 139, 142–144, 152
 - security 200, 201
 - see also* computer security
 - self-tracking 2, 14, 15–16, 21, 22, 23–24, 25
 - menstruation 22, 23–24
 - older adults 2, 16–18
 - Selwyn, Neil 43–44, 45
 - Serebrenik, Alexander 192–193, 195, 200–201
 - Shade, Leslie Regan 33, 40–42, 44, 47
 - Shahamati, Sepideh 171–173
 - shaming 122, 129–130
 - Shannon, Claude 194
 - ‘sharenting’ practices, USA 2, 31, 32, 32, 33–35, 36, 40, 42, 45
 - Sharon, Tamar 23, 66–69, 68, 69, 70, 72
 - Siemens 142
 - ‘slow science’ 7
 - smart devices 122
 - ‘smart’ home technologies 45
 - Smith, Karen Louise 33, 40–42, 44, 47, 220
 - Snowden revelations, 2013 164, 165
 - ‘social good’ 105
 - social isolation, and ageing 17–18, 25
 - social media 41
 - as new feudalism 3, 122, 129–130, 131
 - personal data 84–85
 - ‘sharenting’ practices, USA 2, 31, 32, 32, 33–35, 36, 40, 42, 45
 - social isolation of older adults 18, 25
 - social relations (AI layer) 195
 - social science disciplines 53, 54, 111, 186, 203, 205, 206
 - social sixth sense 129
 - ‘Society of the Spectacle’ 97
 - SOCIO-BEE project 139, 145, 146
 - Software Architecture 193
 - software engineering (SE) 193, 200
 - ACM Software Engineering curriculum 192–193
 - software, free/open source 161
 - spatial politics 159–161
 - data colonialism and amphibious infrastructural data power 161–164
 - digital sovereignty and geopolitical struggle 164–167
 - environmental impact of AI 167–169
 - nature of 175–177
 - Parc-Ex, Montreal, Canada 3, 5, 161, 167–168, 169–175, 176
 - ‘speaking back’ 81, 84–86, 85
 - Sphere Transgression Watch 66–69, 68, 69, 70, 72
 - ‘splinternet’ 165
 - SQL 194
 - Srnicek, N. 120
 - Stallman, T. 171
 - Star, Susan Leigh 14, 73, 147, 187
 - states
 - state surveillance, Canada 63–65, 71
 - state–corporation relations 160–161
 - state–state relations 160
 - see also* digital sovereignty
 - statistical computation (AI layer) 195
 - Stevens, Marthe 66–69, 68, 69, 70, 72
 - Stevens, Paul 215, 216
 - Stoilova, M. 35
 - Stop LAPD Spying Coalition 112
 - ‘street level bureaucrats’ 65
 - student data 114
 - subsea cables 5, 161–164, 166
 - successful ageing 17, 18, 25
 - Suchman, L. 23
 - suicides 130
 - surveillance 122, 165
 - medieval feudalism 129–130
 - military and maritime 143
 - surveillance capitalism 37, 45–46, 120
 - surveillance realism 33, 36–37, 42
 - ‘Sustainability for the Digital Age’ (SDA) 168
 - sustainable computing 168
 - sustainable development data practitioners 103, 106–108
 - Sustainable Development Goals (SDGs) 106–108
- T**
- tax-free zones 126
 - Taylor, Linnet 41, 90, 195–196, 202–203, 219
 - teaching
 - of AI (artificial intelligence) 188–196
 - of trust 196–203
 - technical territories 166–167, 176
 - technique* 46
 - ‘technocolonialism’ 127, 131
 - technological complexity argument 198–199
 - technological spatial politics *see* spatial politics
 - technology
 - technology governance 202
 - and trust 201
 - TensorFlow 194
 - terms and conditions 82–83
 - Thatcher, J. E. 152
 - Tichenor, Marlee 103, 106–108, 111, 116
 - tik tok 160
 - ‘Tiny AI’ 168
 - ‘tokenism’ 91
 - tools, in data studies 2–3, 6, 52–53
 - Top400 youth crime prevention system, Netherlands 86–88
 - touch, and environmental sensing 139, 142–144
 - Treré, Emiliano 40
 - trust
 - as a ‘canonical object’ 6, 188, 203–206
 - ChatGPT 203

- computer science 200–201
- critical data studies 202–203, 204, 219
- data science 204
- data systems 196–197
- (de)professionalizing boundary objects 206–207
- law 191, 197–199
- political philosophy 199–200
- studying and teaching 196–203
- Tuck, E. 132
- Twitter 149
- U**
- UK
 - civil service, algorithmic bias 103, 104–106
 - health sector data journeys 57–59, 72
- United Nations General Assembly 106
- United Nations, ‘Post-2015 Development Agenda’ 106–107
- United Nations Statistical Community (UNSC) 106
- University of Bremen, Germany 216
- University of Massachusetts Amherst, USA, College of Information and Computer Sciences 127
- University of Montreal/Université de Montréal, Canada 167, 174
- MIL campus 169, 170, 174
- University of Sheffield, UK 216
- Upwork 126
- US
 - Center for Medicare and Medicaid Services (CMS) 59, 61
 - data infrastructure 165
 - digital sovereignty 165–166
 - ‘sharenting’ practices 2, 31, 32, 32, 33–35, 40, 42, 45
- utilitarian data justice 177
- Utrecht Data School 65
- V**
- value creation of data 120, 130
- ‘values in design’ 65
- van der Velden, Lonneke 94
- van Gastel, Bernard 66–69, 68, 69, 70, 72
- van Maanen, Gijs 191–192, 199–200
- Vaughan, Hunter 161–164
- Verran, Helen 73
- visibility of data *see in/visibilities, methods, tools and interventions*
- visualizations
 - of data journeys 58–59
 - data vis (data visualizations), climate change 140, 148–150, 152
- Vogl, J. 70–71
- Vukov, Tamara 171–173
- W**
- Wallenberg Foundation, Sweden 114
- Walzer, Michael 66
- water consumption 121, 127, 128, 132, 141, 160
 - see also environmental issues*
- Water Observatory, Lima, Peru 132
- Weiner, K. 23
- Welcome Collective 174–175
- welfare systems 92
 - algorithms and automated decisions in 80, 81
- Western bias, and data justice 41
- ‘what if’ mode 139, 140, 147–148
- White, Quinn 59, 60, 61, 62, 63–64
- Williamson, B. 31
- wind farms 141
- witch hunts 130
- women asylum-seekers, PECC (Parc-Ex Curry Collective) 174–175
- World Wildlife Fund 149
- writing process, collective writing 8, 215–220
- Y**
- Yang, K. W. 132
- Young, I. M. 88
- youth crime, Top400 youth crime prevention system, Netherlands 86–88
- YouTube 36, 128
- Z**
- Zaffaroni, Lorenzo Guiseppe 32–33, 35–37, 40, 42, 45
- Zakharova, Irina 53–55, 71
- Zandbergen, D. 23
- zero-trust security 200
- Zuboff, Shoshana 45, 120