# **INDEX**

ACCOUNTABILITY, DUE PROCESS AND, 158-161

ADJUDICATION, USE OF AI, 88-91

AI PROVIDERS IN PRACTICE OF LAW, APP. A

ALTERNATIVE LEGAL SERVICE PROVIDERS (ALSP), 35-36

ARTIFICIAL GENERAL INTELLIGENCE (AGI), 28-29

**ARTIFICIAL INTELLIGENCE DEFINED**, 21-23

**ARTIFICIAL NARROW INTELLIGENCE (ANI), 28** 

#### BIAS

biased algorithms: causation vs correlation, 162-165 biased or unbalanced data, 161-163 generally, 161

BLACK-BOX SYNDROME, 97, 209

#### BUSINESS OF LAW, USE OF AI

assessing data room activity, 91-92 detecting potential violations of law, 93 generally, 91 law firm processes, 92-93 management of legal data, 92 processing applications, 93 ranking and finding attorney, 92

#### CALIFORNIA CONSUMER PRIVACY ACT

biometric information, 202-203 generally, 127, 171, 186, 187 personal information, 184

# **CAMBRIDGE ANALYTICA**, 189-190, 237, 238, 241

# CHINESE ROOM ARGUMENT, 6

**CLIMATE CHANGE**, 17

# **CONTEXTS**

Canadian, 42-43 generally, 17-18 global challenges, 17-18 global geopolitical, 41 ideas deficit, 18 socioeconomic, 39-41 technological, 19-21

# **CONTRACT DRAFTING**, 87-88

# CONTRACT REVIEW AND DUE DILIGENCE TASKS, 80-83

# **COVID-19 PANDEMIC, EFFECTS OF, 38**

# **CUSTOMIZATION OF AI**

```
general principles , 47
law, 51-52
risk assessment
environmental risks, 53
generally, 52-53
operational risks, 53
reputational risks, 53
stages
efficiency, 48
feasibility, 47
testability and measurability, 49-51
value-add, 48-49
```

# DATA, MARKET AND SOCIOECONOMIC ASYMMETRIES, GOVERNANCE OF

```
concerns
data and market asymmetries, 246-250
generally, 245-246
socioeconomic asymmetries, 250-252
regulatory response, 252-254
```

# DATA, PERSONAL, see PRIVACY

**DATA MINING**, 23, 189

**DATA TRUSTS**, 192-193

# DECISION-MAKING: ACCOUNTABILITY, BIAS AND DUE PROCESS

accountability and due process, 158-161 bias

biased algorithms: causation vs correlation, 162-165 biased or unbalanced data, 161-163 generally, 161

emerging practical uses of AI generally, 151-152

private sector, 155-158 public sector, 152-155

generally, 165-167

regulatory responses to address concerns

Canada, 167-170

European Union, 173-177

United States, 170-173

**DEEPFAKES**, 235-236, 239-240

**DISCOVERY**, 86-87

**DUE DILIGENCE TASKS**, 80-83

# DUE PROCESS, ACCOUNTABILITY AND, 158-161

#### ETHICS AND AI

human ethics and machine rationality, 261-262 machine ethics, values in an algorithm algorithmic ethics as a discipline, 259-260 examples, 260-261 generally, 257 preliminary conceptual issues, 258-259

# FREE SPEECH PROTECTION, 142

# GENERAL DATA PROTECTION REGULATION (EU)

Article 4, 183-184, 202 Article 5, 190

```
Article 9, 202
Article 15, 136, 174-176
Article 17, 191-192
Article 22, 173-174
Article 35, 135-136
Cambridge Analytica and, 238
generally, 13, 41, 61, 127, 129, 171, 183, 186, 188, 191
```

#### **GENERATIVE ADVERSARIAL NETWORKS**, 235-236

# **GLOBAL PANDEMICS**, 18, 38

#### GOVERNANCE OF AI, GENERALLY

```
common law precedent vs legislative regulation, 128-129
comprehensive vs industry-by-industry regulation, 126-127
existing vs new laws, 127-128
function of law in AI context, 146-149
generally, 121-124
global vs domestic governance, 129
Lotus principle approach, 129-130
principles-based approach, 142-146
regulatory spectrum, 124-126
specialized regulator or administrator, 130-131
what to regulate
algorithm, 133-142
generally, 131
input data: privacy, confidentiality and territorial jurisdiction, 131-132
output of AI, 133
```

# **GOVERNANCE OF AI LAWYER**

```
duties
communication, 230
competence, 229-230
confidentiality, 230
conflict of interest, 230
supervision, 230
generally, 229
regulatory responses
ban on judicial analytics, 233
new obligation on lawyer: to use AI, 232
professional rules and other options, 231-232
```

# HUMAN AUTONOMY, AI AND PROFILING

current uses, 180-181 discrimination, 183 generally, 179-180 profiling for political purposes, 183 protection of behavioral patterns, 181-182 regulatory response, 183-186

# **INFORMATIONAL INEQUALITY**, 39

# INTERNATIONAL COOPERATION AND GOVERNANCE OF AI, 263-265

**INTRODUCTION**, 1-15

#### LAWYERS, KEY LEGAL SKILLS IN THE FUTURE

augmentation vs replacement, 119 business acumen, 119-120 generally, 118 management of legal AI, 118-119

#### LEGAL CONCEPTS, AI RECOGNITION OF, 65-67

# LEGAL INDUSTRY, GENERALLY

alternative legal service providers, 35-36
Big 4, 34-35
Big Law model
generally, 32-33, 36
pressures on, 33-34
business perspective, 32-33
clients, 36
generally, 31-33
innovation, 34-36
legal tech companies, 36
outcome-based legal services, 37
post-pandemic world, 38
productization of legal knowledge, 36-37
technological developments, 32

# LEGAL LANGUAGE

generally, 58-59 natural language processing (NLP) capabilities classification of provisions in documents, 60-62 generally, 55-58

scoring provisions and detecting deviations from standard market approach, 63-65 summarizing legal text, 62-63 unstructured communications, alerts of undesired activities, 59-60

# LEGAL OUTCOMES, PREDICTION, see LEGAL RISK ASSESSMENT AND PREDICTION OF LEGAL OUTCOMES

#### LEGAL PERSONHOOD OF AI

emerging contexts, 224-226 generally, 222-224 regulatory responses authorship under IP law, 226-228 other attempts, 228

#### LEGAL PROCESS OUTSOURCERS (LPO), 35

LEGAL RESEARCH, 83-86

### LEGAL RESPONSIBILITY AND AI, see also LEGAL PERSONHOOD OF AI

autonomous vehicles, design and operation, 205-206 financial services, 206 generally, 205, 207-210 health care, 206 legal services, 206-207 possible regulatory approaches contract, 219-221 generally, 210 liability, 221-222 tort, 211-219

#### LEGAL RISK ASSESSMENT AND PREDICTION OF LEGAL OUTCOMES

arbitration analytics, 77-78
feasibility and value-add, 68-69
generally, 67-68, 76-77
judicial analytics vs substantive judicial prediction, 69
methodological approaches
NLP and judgment-related text, 69-71
non-NLP/extraneous judicial factors, 71-76

# LETHAL AUTONOMOUS WEAPONS (LAWS)

concerns, 241-242 generally, 18, 122, 145, 225, 263, 265

Convention on Certain Conventional Weapons framework, 243

```
legally binding treaty to ban use of LAWS, 244
     political declaration, 245
LIMITATIONS OF AI IN LAW
  generally, 95-97
  human management, communication and advocacy skills limitations
     advocacy, 115-116
     AI and emotional intelligence (EI), 115
     generally, 113
     human management, 113-115
  multi-layered legal analysis limitation
     across different levels of legal norms, 100-101
     across distinct legal systems, 99-100
     generally, 99
  normative limitations
     advocacy skills, 106-107
     conflicts of interest, detecting, 106
     examples, 105-106
     generally, 104-105
     human judgment vs algorithmic 'valuation', 107-108
  originality and creativity limitations
     creativity expanded by business acumen and technological knowledge, 104
     creativity in law, 102-104
     generally, 101
     originality vs creativity, 101-102
  other limitations, 116-118
  reasoning limitations, 97-99
  social context and strategic limitations
     context, 109-111
     generally, 108-109
     strategic thinking, 111-113
```

# LOTUS PRINCIPLE APPROACH TO REGULATION, 129-130

# MACHINE ETHICS

regulation

algorithmic ethics as a discipline, 259-260 examples, 260-261 generally, 257 preliminary conceptual issues, 258-259

# NATURAL LANGUAGE PROCESSING (NLP), see LEGAL LANGUAGE

#### **NUCLEAR WEAPONS**, 17-18

# PERSONAL INFORMATION PROTECTION AND ELECTRONIC DOCUMENTS ACT (PIPEDA), 168, 184-185, 192, 241

# POLITICAL PROCESS, GOVERNANCE OF

concerns, 236-238 generally, 235-236 regulatory response deepfakes, 239-240 generally, 238 political targeting, 240-241 search results, 241

# PRIVACY, see also SURVEILLANCE, FACIAL AND VOICE RECOGNITION

consent, extended use of personal data, 187-190 data protection, scope of personal data, 186-187 data trusts, 192-193 generally, 186 new interpretation of privacy policies, 190-191 new rights: right to reasonable inferences, right to be forgotten, 191-192

#### PROFILING, see HUMAN AUTONOMY, AI AND PROFILING

**REGULATORY COMPLIANCE**, 78-80

**RIGHT TO BE FORGOTTEN**, 13, 103, 191-192, 264

RIGHT TO REASONABLE INFERENCES, 13, 103, 191-192

RISK ASSESSMENT, see CUSTOMIZATION OF AI; LEGAL RISK ASSESSMENT AND PREDICTION OF LEGAL OUTCOMES

RISK ASSESSMENT MATRIX FOR PROPOSED AI APPLICATIONS, APP. B

SINGULARITY, 7, 28-29, 112, 262

# SOCIOECONOMIC ASYMMETRIES

capital (employers) vs labor (employees), 251-252 consumers vs business, 250-251

generally, 246, 250 regulatory response, 252

# **SURVEILLANCE, FACIAL AND VOICE RECOGNITION**, see also **PRIVACY**

concerns, 194-198
current uses, 193-194
regulatory response
biometrics data regulation, 201-203
generally, 203-204
limitations in use of facial recognition, 200-201
outright ban, 199-200

#### TECHNOLOGICAL CONTEXT

AI evolution, factors behind, 23 artificial general intelligence (AGI), 28-29 artificial intelligence defined, 21-23 artificial narrow intelligence (ANI), 28 current trends and uses, 29-30 deep learning, 24-25 digital data defined, 19-20 expert systems, 27-28 machine learning generally, 24-25 reinforcement learning, 27 supervised learning, 25 unsupervised learning, 25, 26-27 population-based training, 28 taxonomy, 23-24 valuable resource, digital data as, 20

#### TECHNOLOGICAL DISRUPTION

generally, 3, 18

# **TURING, ALAN**

generally, 23, 262 Institute, 177 origins of AI, 21 test, 1, 2, 95 Turing Award, 42