

Index

- access and availability problems with IP
 - regime, 12–13, 110–21
 - compulsory licensing as means of
 - addressing, 113–14
 - consequentialist/welfarist approach to, 118–21
 - differential pricing as means of
 - addressing, 112–13
 - expense and risk of drug production, IPR
 - as means of compensating for, 111
 - free trade, importance of, 121
 - high price of IP protected drugs, 111–12
 - incentivising mechanisms, 114–16
 - life-saving medicines, focus on, 110
 - low-income countries, drugs for diseases
 - mainly affecting people in, 112
 - morality exclusions based on social justice
 - considerations, 160–1
 - natural rights/libertarian approach to, 116–18, 121
 - nature of problem, 110–12
 - solutions to problem, 112–16
 - strong IPR regime and volume of
 - innovation, correlation between, 121
- Adorno, Theodor W., 272
- Advance Market Commitment, 114
- African Americans, reparations for slavery
 - for, 71, 82
- AIDS/HIV, 113
- alchemy, 182
- analogy. *See* metaphors and analogies in
 - synthetic biology
- anticommons theory, 97, 137
- Aquinas (Thomas), 287
- Aristotle, 62, 179, 287–8, 292, 293, 297, 300–1
- Australia, 66, 144, 259
- authority, as Kantian communicative
 - principle, 236–7, 239, 240, 252
- autonomy and intellectual property, 3–5, 33–57
 - concept of autonomy, 34–8
 - copyright
 - correlative autonomy of reading
 - community as speaking beings and, 223
 - Kantian approach to autonomy and, 231–5, 239–40
 - protection of author's autonomy as
 - speaking being, as, 222, 223
 - corrective justice and rights in TK, 5, 8, 80–1
 - cultural products, IP claims for, 49–55
 - definition of autonomy as self-
 - government, 35
 - distributive justice versus, 5
 - embodiment and, 43
 - employment law and, 31
 - exclusive rights in ideas and, 4–5
 - Hegelian ideas of positive freedom and
 - self-expression and, 47, 48
 - human rights, autonomy in context of, 40
 - identification of author or artist with
 - product, protection of, 48
 - indigenous peoples' rights to TK and, 3–4, 5, 8, 34, 49–55, 80–1
 - individualistic value, autonomy
 - challenged as, 3, 41–4
 - Kantian approach to, 231
 - lawlike character required for use of
 - reason to be truly autonomous, 238–9
 - liberal political theory, in 34–5, 39–40, 41
 - limitations of approach, 55–7
 - Lockean natural rights arguments and, 47–8, 50
 - not all threats to autonomy best shielded
 - by IP, 56
 - property ownership and autonomy, 47. *See also* control rights; income rights

330 Index

- autonomy and intellectual property (cont.)
 social self and, 36, 41–4
 trade marks, allusive use as violation of
 expressive autonomy of holder of,
 249–55
 transnational value, autonomy as, 55–6
 value, autonomy as, 38–41
 availability. *See* access and availability
 problems with IP regime
- Bakewell, Robert, 189
 Barron, Anne, 225, 234–5, 240
 Basheer, Shamnad, 142, 155
 Bechtel, William, 189
 Beitz, Charles, 5, 21
 Benner, Steven, 186
 Bently, Lionel, 142, 160, 245, 254, 256
 ‘best mode’ requirements for patentability,
 258
 best use of resources, promoting, 133
 BioBricks, 177
 Bird, R. C., 114
 Biron, Laura, 21–4, 29–30, 225
 Blackstone, William, 227, 229
 body, autonomy, and the self, the 43
 Borghi, M., 255
 Brandeis, L. D., 217
 Brazil, 144
 Brunel, Marc, 177
 Burk, Dan L., 136, 141, 157, 170
- Calvert, J., 193
 Canada, 144, 177, 199, 289, 292, 304
 celebrity, as prize alternative to patents, 106
 Chamberlen family, 15, 132
 China, morality exclusions in, 144
 Chirac, Jacques, 280
 Chixoy Dam Reparations case, Guatemala,
 67–9
 Christman, John, 2, 3–5, 8, 14, 33
 Cialdini, Robert, 294
 commercialisation, immoral exploitation in
 sense of, 149, 150, 159
 commons
 anticommons theory, 97, 137
 Creative Commons movement, 295
 intellectual commons, concept of, 127,
 129, 131
 IP regarded as common property, 122–3
 tragedy of the commons, 122
 communicative account of copyright law,
 21–4, 225–60. *See also* under Kant,
 Immanuel
 accessibility and assessability, importance
 of, 243
 authority, 236–7, 239, 240, 252
 consistency, 236, 237–8, 239, 240
 cultural products, tradition of sharing,
 265
 expansion of copyright, problem of,
 228–30
 individual versus principled autonomy,
 231–5
 intelligibility, 236, 237, 238, 239, 240
 moral duties and, 23–4
 patents and trade marks, communicative
 aspects of, 22–3
 political philosophy, ramifications for, 23
 proprietisation concerns regarding
 copyright, 227, 242–3
 public domain in, 22
 public versus private reason, 231, 235–40
 reproduction, liberation of concept of
 infringement from, 224
 rights-based account of copyright law,
 copyrighted work as communicative
 act in, 206, 209–12, 220, 223
 self-expression versus public
 communication, 231
 transformative works of authorship,
 treatment of, 22, 243–4
 communicative account of patent law, 22–3,
 255–9
 communicative account of trade mark law,
 22–3, 245–55
 compelled speech
 allusive use of trade marks as, 250–1, 253
 American legal cases on, 21, 250
 copyright violations as form of, 21, 204,
 206, 212–19
 compensatory justice. *See* corrective justice
 and rights in TK
 competitive innovation theory, 136
 compliance with IP laws. *See* enforced
 compliance with IP laws
 compulsory licensing, 113–14, 158, 160,
 170
 consequentialist understanding of law
 corrective justice distinguished from, 62
 ethical defence of IP, 118–21
 morality exclusions based on, 159
 patents, 255–7, 259
 public domain, understanding of, 241
 welfarism as form of, 118. *See also*
 welfarist arguments regarding
 intellectual property rights
 consistency, as Kantian communicative
 principle, 236, 237–8, 239, 240, 253
 consumers. *See* producer, consumer, and
 entrepreneurial interests

- contractarian theory of economic justice, 263–4, 274–5
- control rights
 - autonomy, intimate relationship to, 45, 46–7
 - defined, 3, 45
 - income rights
 - importance of distinguishing from, 3, 45
 - relationship to, 30
 - moral duties and, 24
- Cook, Philip, 270
- Copernicus, Nicolas, 182
- ‘copynorms,’ concept of, 294–6
- copyright. *See also* communicative account
 - of copyright law; rights-based
 - account of copyright law; Trade-Related Aspects of Intellectual Property Rights (TRIPS) regime
 - autonomy and. *See under* autonomy and intellectual property
 - compelled speech, copyright violations as form of, 21, 204, 206, 212–19
 - ethical teleology of, 290–3
 - expansionism, problem of, 228–30
 - fair use in. *See* fair use or fair dealing
 - Kant and. *See* Kant, Immanuel
 - misattribution versus, 215, 217
 - misrepresentation versus, 215, 217
 - misuse, doctrine of, 291
 - music downloading. *See* music industry, P2P file sharing in
 - originality in copyright law versus novelty in patent law, 207–12
 - patents distinguished, 206, 207, 211
 - privacy law versus, 20, 213–15, 216, 217–18
 - property rights versus. *See under* property rights
 - published versus unpublished works, 212–19
- corrective justice and rights in TK, 5–8, 58–87
 - Aristotle’s account of corrective justice, 62
 - autonomy of indigenous peoples and, 5, 8, 80–1
 - combination of domestic legislation and treaties as means of targeting, 74–81
 - commercial value of rights, adequacy of, 63
 - commercialisation of TK, presence or extent of, 81
 - definition of TK for purposes of, 58–9
 - diffuse interests and rights, cases involving, 73–85
 - distinguishing corrective from distributive, consequentialist, and reductionist understandings of law, 62, 63
 - easily justifiable and legally recognisable rights cases, 66–70
 - effectiveness and efficiency as remedy, 7, 62–3
 - generalised/abstract versus particularised consideration of, 60–1
 - identifiability of victims and perpetrators, 6, 61
 - lack of gross harm, situations involving, 85
 - legal-science and political-symbolic remedial elements of, 65–6
 - mismatch between scale of remedy and wrong, objections regarding, 7, 63, 64–5, 67, 81
 - no excuse for wrongdoing, 62
 - non-traditional intellectual property rights, extension to or replacement by, 8
 - offsets to harm done, 82
 - par-based arguments regarding, 82, 83
 - practical value of TK rights for indigenous peoples, 86–7
 - reasons for addressing, 60
 - reparations as form of corrective justice, 59
 - six-step argument for, 6, 61–3
 - subdivision of corrective justice into compensatory and restorative justice, 59
 - successors of victims and perpetrators, identifiability and compensability of, 7, 69, 70–3
 - tradition and knowledge, absence of, 83, 84
 - tradition without knowledge, situations involving, 82, 84
 - transaction costs, problem of, 63, 64
 - unjustifiable harm caused by wrong, 61
 - wrong committed, 61
- Creative Commons movement, 295
- Crick, Francis, 193
- Crown use exemption, 158, 160, 170
- Cullity, Garrett, 25, 266, 267, 270, 273, 274, 275
- cultural products
 - IP claims for, 49–55
 - tradition of sharing, 277–8
- cumulative innovation theory, 136
- Darwin, Charles, 102
- Davies, Paul, 189

332 Index

- Dawkins, Richard, 185, 189
 Declaration of Independence, U.S., 95
 democratic elections
 IP lessons from organisation and
 financing of, 31–2
 non-voting as free-riding, 27
 Demuijnck, Geert, 24–9, 261, 285–6, 302
 Derrida, Jacques, 23
 Descartes, René, 180, 182, 188, 189
 descriptive copynorms, 295
 Dickens, Charles, 11
 differential pricing, 112–13
 Digital Rights Management (DRM), 132
 diminishing marginal productivity, problem
 of, 91–3, 97–9
 discovery versus invention, applicability of
 patents to, 17, 197–202
 distributive justice
 corrective justice distinguished from,
 62, 63
 cosmopolitanism in, 91
 indigenous peoples' rights to TK as
 question of, 53, 55, 57, 60
 DNA
 information function of patenting and,
 257
 morality exclusions for patents on, 152,
 161
 synthetic biological engineering of,
 175. *See also* metaphors and
 analogies in synthetic biology
 Drassinower, Abraham, 18–22, 29–30, 203,
 240, 241, 242, 255
 drugs, life-saving, and ethical problems with
 IP. *See* access and availability
 problems with IP regime
 Dufield, Graham, 17–18, 172
 Dyson, Freeman, 185
- E. coli*, metabolic engineering of, 177, 178,
 186
 effectiveness argument for prizes as an
 alternative to patents, 8–12
 Einstein, Albert, 106
 embodiment, autonomy, and the self, 43
 embryonic stem cell patents, morality
 exclusions regarding, 140, 141,
 151–2, 164–9
 employment law
 autonomy and income rights, relationship
 between, 31
 compelled speech and, 21
 endogenous growth theory, 101
 enforced compliance with IP laws
 standard of morality and, 281
- technical impossibility of enforcing music
 download compliance, 279–81
 unfairness likely to be exacerbated by
 enforcing music download
 compliance, 279, 281–2
 engineering, synthetic biology's use of
 language of, 176, 177, 190–7
 entrepreneurs. *See* producer, consumer, and
 entrepreneurial interests
 equality and IP regulations, 133–4, 138–9
 ethics. *See* moral philosophy
 Europe
 chemicals, patentability of, 200
 'culture of improvement' in, 191
 morality exclusions in, 140, 142–3
 synthetic biology in, 176
 technical character test for patentability
 in, 198
 evolution through natural selection, 102,
 182
 exclusive rights in ideas, autonomy value not
 ensuring, 4
 expansion of copyright, problem of, 228–30
 expression. *See* speech
- factor rent situations, 271
 fair use or fair dealing
 free riding and fair use jurisprudence,
 275–7
 rights-based account of, 19–20, 219–22,
 223
 virtue ethics of copyright and, 291
 file sharing in music industry. *See* music
 industry, P2P file sharing in
 first mover advantage, 106
 Forsyth, Tom, 252
 France, 105, 266, 278, 279–82
 Frank, Robert, 270
 free riding as morally acceptable, 24–9,
 261–83
 ability of artists to make a living despite
 free downloading, 278–9
 cooperative schemes, acceptable and
 unacceptable free riding in context
 of, 25–6, 266–8
 contractarian theory of economic justice
 and, 263–4, 274–5
 cultural goods, tradition of sharing, 277–8
 definition of free riding, 263–4
 enjoyment of positive externalities not
 intrinsically immoral, 25
 fair use jurisprudence and, 275–7
 Hadopi legislation in France and,
 279–82
 lack of moral qualms in practitioners, 261

- market interaction, absence of, 26, 27, 262, 274–8
- non-voting as free riding, 27
- public goods and, 262, 265–74
 - conditions required for free riding to be fair or unfair, 266–8
 - damage to public goods from free riding, 265–6
 - general benefit from institutional schema, presence or absence of, 267, 270–3, 274
 - intellectual goods as public goods, 268–70
 - net benefit from participation in institutional schema, presence or absence of, 267, 274, 275
 - overall fairness of institutional schema and, 267, 273–4
- technical impossibility of enforcing compliance, 279–81
- unfairness likely to be exacerbated by enforcing compliance, 279, 281–2
 - in winner-takes-all market, 26–9, 270–4
- free riding, industrial use of TK as, 61
- free trade, libertarian and welfarist traditions on importance of, 121
- freedom of speech/expression. *See* speech
- Fuller, Lon, 288
- Galileo, 182, 188, 189
- Gamow, George, 184
- Gates, Bill, 106
- Gaukroger, S., 180
- Gauthier, David, 262, 263–4, 271, 274–5
- General Agreement on Tariffs and Trade (GATT), 110
- Germany, 60, 105, 200
- global warming, possibility of ‘technological fix’ for, 93
- goals of IP
 - distinguishing rights from, 125–6
 - empirical question of most effective means of achieving, 135–7
 - morality exclusions as policy levers and, 157–8
 - philosophical; analysis of, 123, 131–4
 - social utility, 158
 - utilitarian purpose of, 157
- good new ideas
 - beneficial effects of human creativity, IP’s goal of promoting, 131–2
 - discovery versus invention, applicability of patents to, 17, 197–202
 - importance of nurturing, 9
 - international intellectual property regime, arguments in favour of, 90
 - near-public goods character of, 88–96
 - non-property prize system for rewarding. *See* prizes as a patent alternative
 - productivity factor and, 91–3
- Gordon, Wendy, 277
- government-sponsored prizes as a patent alternative, 104–5
- governmental control for optimum provision of public goods, 90
- governments, compulsory licensing by, 113–14
- Gray, T., 50, 52–3
- great chain of being concept, 182
- Greaves, T., 50
- Griffiths, Paul, 187
- Guatemala, 67–9
- Habermas, Jürgen, 23, 226, 240
- ‘Hadopi’ legislation in France, 279–82
- Hand, Learned, 208
- Hardin, G., 122
- harm, concept of, 130
- Harvey, William, 180
- Hawking, Steven, 106
- Hayek, F., 108
- Health Impact Fund (HIF), 12, 109, 115–16
- Hegel, Georg Wilhelm Friedrich, 47, 48
- Heinemann, M., 178
- HIV/AIDS, 113
- Hobbes, Thomas, 179, 180, 188, 189
- Hollis, A., 115
- Hooke, Robert, 180
- Horkheimer, Max, 272
- horse manure problem at end of nineteenth century, 93
- Hughes, Thomas, 179
- human rights, 40, 60, 75
- Hume, David, 281
- idea/expression dichotomy, 220, 221
- ideas. *See* good new ideas
- immorality. *See* morality exclusions
- incentives
 - access and availability problems, incentivising mechanisms addressing, 114–16
 - most effective means of achieving goals of IP regime, empirical question of, 135–7

334 Index

- incentives (cont.)
 - policy-driven, incentive-based account of copyright law versus rights-based account, 207
 - prizes as a patent alternative, incentivisation problems with, 109
 - strong IPR regime and volume of, correlation between, 121
- income rights
 - autonomy, not justified by, 4, 45, 47, 52–5
 - control rights
 - importance of distinguishing from, 3, 45
 - relationship to, 30
 - defined, 3, 45
 - distributive justice as means of justifying, 5
 - employment law and, 31
 - indigenous peoples' rights to TK and, 3–4, 52–5
 - moral duties and, 24
- indigenous peoples' rights to traditional knowledge (TK). *See also* corrective justice and rights in TK
 - autonomy, concept of, 3–4, 5, 8, 34, 49–55, 80–1
 - definition of TK, 58–9
 - different approaches to, 59
 - distributive justice, as 53, 55, 57, 60
 - free-riding, industrial use of TK as, 61
 - human rights issue, as 60, 75
 - income rights and, 3–4, 52–5
 - IP, TK as, 59
 - moral rights of inventors, arguments against, 14
 - pooling strategies for dealing with, 74
 - property-based arguments for, 60
- individual versus principled autonomy, 231–5
- individualistic value, autonomy challenged as, 3, 41–4
- information function of patent law, 255–9
- information, life viewed as form of, 183–8
- information processing problem with prizes as a patent alternative, 108–9
- injunctive copynorms, 295
- intellectual commons, concept of, 127, 129, 131
- intellectual property (IP) and intellectual property rights (IPR). *See* philosophy of intellectual property
- intelligibility, as Kantian communicative principle, 236, 237, 238, 239, 240, 252, 256–9
- international intellectual property regimes. *See also* Trade-Related Aspects of Intellectual Property Rights (TRIPS) regime
 - good new ideas, optimal provision of, 90
 - trade barriers, libertarian and welfarist traditions on need to eliminate, 121
- interpretative issues with morality exclusions, 140–1, 145–54, 158
- invention versus discovery, applicability of patents to, 17, 197–202
- IP (intellectual property) and IPR (intellectual property rights). *See* philosophy of intellectual property
- J. Craig Venter Institute, 172, 176, 177
- Jacob, Lord Justice R., 197
- Jacobson, Homer, 188
- Japan, 105
- Jefferson, Thomas, 129, 132
- Jobs, Steve, 106
- Kahan, Dan M., 294
- Kant, Immanuel
 - authority, as communicative principle, 236–7, 239, 240, 252
 - autonomy, Kant's approach to, 231–5, 239–40
 - communicative account of copyright, 23, 225, 228
 - expansion of copyright, problem of, 228–30
 - individual versus principled autonomy, 231–5
 - in Kant's writings on copyright, 230–1
 - propertisation concerns and, 227, 242–3
 - public domain and, 22, 240–1
 - public versus private reason, 231
 - self-expression versus public communication, 231, 234–5
 - transformative works of authorship, treatment of, 22, 243–4
 - consistency, as communicative principle, 236, 237–8, 239, 240, 253
 - intelligibility, as communicative principle, 236, 237, 238, 239, 240, 252, 256–9
 - patent law and, 22–3, 255–9
 - property, theory of, 242
 - rights-based account of copyright, 21–2, 204–6, 212, 224
 - trade mark law and, 22–3, 245–55
 - writings of Kant on copyright, 204–6, 230–1
- Kay, Lily, 188
- Keasling, Jay, 177

- Keller, Evelyn Fox, 191
 Kepler, Johannes, 182
 Kershner, Stephen, 70–1, 72
 Khan, B. Zorina, 11, 12
 Knight, Tom, 17, 185, 197
 Köhler, Josef, 200
 Krugman, Paul, 283
 Kymlicka, W., 38, 50–1
- Laddie, Sir Hugh, 18
 Lametti, David, 25, 29–30, 284
 Lavoisier, Antoine, 183
 law and morality, relationship between, 16, 155–6
 lawlike character required for use of reason to be truly autonomous, 238–9
 Lear, Jonathan, 44
 Leibniz, Gottfried, 182
 Lemley, Mark A., 136, 141, 157, 170, 273
 Lessig, Lawrence, 122
 Lever, Annabelle, 1
 Levitin, Dan, 300
 liberal political theory
 autonomy in, 34–5, 39–40, 41
 ethical legitimacy of IPs, defence of, 116–18, 121
 free trade, importance of, 121
 property ownership in, 44
 liberty, IP regulations and incursions into, 132, 138–9
 licensing, compulsory, 113–14, 158, 160, 170
 Liddell, Kathleen, 15–16, 18, 140
 life-as-information idea in synthetic biology, 183–8
 life, problem of defining, 202
 life-saving medicines and ethical problems with IP. *See* access and availability problems with IP regime
 life sciences, use of metaphors in synthetic biology of. *See* metaphors and analogies in synthetic biology
 Locke, John, and Lockean theory, 33, 47–8, 50, 94–6, 116–18, 157, 229, 249, 262, 274, 275
 Lucretius, 183
- Macaulay, Thomas Babington, 134
 machine-or-transformation test for patentability, U.S., 198
 Maitland, Ian, 118
 marimba music, as TK, 68
 Maudslay, Henry, 177
 Maya-Achí, Guatemala, 67–9
 Mayagna Awas Tingni Community, Nicaragua, 77–81
- McAdams, Richard, 294
 McGrath, Alister, 197
 Mead, Margaret, 42
 mechanistic views of biological organisms and events, 179–81, 188–90
 medicines, life-saving, and ethical problems with IP. *See* access and availability problems with IP regime
 Merges, R., 227, 234
 metabolic engineering, 177
 metaphors and analogies in synthetic biology, 17–18, 172–202
 complexity, synthetic biology's efforts to reduce, 193
 critical analysis of use of, need for, 173–5
 definition and description of synthetic biology, 175, 177
 definition of analogy, 179
 definition of metaphor, 179
 engineering, synthetic biology's use of language of, 176, 177, 190–7
 exact science, tendency to see synthetic biology as 182
 functionality of, 192–7
 historical background to patenting of chemical substances, 173
 historical development of life chemistry and, 182–3
 integral part of metaphor and analogy in language and communication, 179–81
 invention versus discovery, applicability of patents to, 17, 197–202
 life-as-information idea, 183–8
 literal treatment of, 174, 180, 181
 mechanistic views of biological organisms and events, 179–81, 188–90
 metabolic engineering, 177
 minimal genomes, creation of, 176
 misleading and deceptive aspects of, 181–2
 nature, unacknowledged creative contribution of, 174
 simplicity of nature, as pervasive idea in history of biology, 193
 standardisation of parts, devices, and systems (modularity), 176, 177, 193
 metaphysical chattel, concept of, 216
 Mill, John Stuart, 130, 181
 minimal genomes, creation of, 176
 misattribution versus copyright, 215, 217
 misrepresentation versus copyright, 215, 217

336 Index

- misuse of copyright, doctrine of, 291
 Mithen, Steven, 185
 modularity (standardisation of parts, devices, and systems) in synthetic biology, 176, 177, 193
 monopoly power as internal threat to patents, 9, 96–9
 Moore's Law, 92
 moral philosophy. *See also* access and availability problems with IP regime; free-riding as morally acceptable; standards of morality
 communicative account of copyright law, in 23–4
 consequentialist/welfarist ethical justification of IPs, 118–21
 discovery versus invention, patent distinction between, 17
 ethical teleology of IP generally and copyright in particular, 290–3
 inventors, moral rights of, 13
 law and morality, relationship between, 16, 155–6
 natural rights/libertarian defence of IPs, 116–18, 121
 virtue ethics
 applied to music sharing, 296–305
 concept of, 287–93
 moral rights
 defined, 123, 126
 denial of special rights of inventors to IP, 13, 123, 125–31
 inalienable, as 21
 IP regime's need to respect, 138
 no hardship argument for, 129–31
 pecuniary versus non-pecuniary, 5
 Rights Justification Principle, 128
 moral utility doctrine, U.S., 144–5
 morality exclusions, 15–16, 140–70
 both moral and immoral applications, inventions with, 148, 163
 commercialisation, immoral exploitation in sense of, 149, 150, 159
 consequentialist understanding of law, based on, 159
 dangers of not having, 170
 defined, 140
 DNA sequence coding, 152, 161
 effectiveness as means of regulating immoral activity, 131
 embryonic stem cell patents, 140, 141, 151–2, 164–9
 evidence establishing immorality, 147, 162
 focus or target of moral inquiry, determining, 147, 148–52, 158–61
 goal of IP and, 157–8
 historical background, 142
 interpretative issues, 140–1, 145–54, 158
 jurisdictions allowing for, 140, 142–5
 jurisprudential underpinnings of, 141, 154–6
 legal status of potential immorality, 147, 163
 ordre public and morality, relationship between concepts of, 147, 163
 'poisoned fruit' of preceding research, immoral exploitation in sense of, 149, 150, 159, 161
 policy levers, as 141, 156–64, 168–9
 social justice considerations, 160–1
 standard of immorality required to trigger, 147–8, 152–4, 161
 test or definition for immorality, 147, 162
 time, changes in concepts of morality over, 147, 163
 transgenic animal patents, 140, 149, 152, 154
 unmeritorious situations, immoral exploitation in sense of, 149, 151, 159, 161
 utilisation, immoral exploitation in sense of, 149, 150, 151, 158, 159
 Morange, Michel, 184
 Munzer, Stephen, 5–8, 58
 music industry, P2P file sharing in. *See also* free-riding as morally acceptable; social dimension of music copying and sharing
 ability of artists to make a living despite, 278–9
 creativity promoted by, 296–9
 ethical limits on, 300–2
 lack of moral qualms in practitioners, 261, 284–6
 protest or objection, social ethics of, 302
 virtue ethics approach to, 287–93
 winner-takes-all structure of industry, 270–4, 286, 302, 304
 Native Americans, TK rights of, 44, 49, 70
 natural law versus positive law schools on relationship between law and morality, 155
 natural rights, 47–8, 94–6, 116–18, 121
 nature, unacknowledged creative contribution of, 174

Index

337

Netanel, Neil, 21, 226
 new good ideas. *See* good new ideas
 New Zealand, 259
 Newton, Isaac, 178, 182, 188, 189
 Nicaragua, 77–81
 no hardship argument for moral rights, 129–31
 Noble, Denis, 181
 non-excludability
 of ideas, 89, 90, 102, 129, 132
 of public goods, 265
 non-obviousness test, 18
 non-rivalrousness
 as matter of degree, 265
 of ideas, 59, 77, 89, 90, 102, 123, 128, 133–4
 of public goods, 265
 non-voting as free-riding, 27
 novelty in patent law versus originality in copyright law, 207–12
 Nozick, Robert, 47, 94, 116, 264

objection or protest, social ethics of, 302
 offsets to harm done to indigenous peoples' rights in TK, 82
 Oliver, Lord, 255
 O'Neill, Onora, 21, 225, 232, 234–5, 238, 243
 optimal IP regulation, philosophical contributions to, 13–15, 122–39
 beneficial effects of human creativity, promoting, 131–2
 both producers and consumers of ideas, need for legal protections for, 15
 combined public and private nature of ideas, 14–15
 common property, IP regarded as, 122–3
 distinguishing rights and goals, 125–6
 equality considerations, 133–4, 138–9
 goals of optimal regulatory system, 123, 131–4
 implications of, 124, 134, 139
 intellectual commons, concept of, 127, 129, 131
 liberty, incursions into, 132, 138–9
 moral rights, importance of IP regime's respect for, 138
 moral rights to IP, lack of, 13, 123, 125–31
 most effective means of achieving goals of IP regime, empirical question of, 135–7
 policy recommendations based on theoretical account of IP, 123, 125
 private property, IP regarded as, 122–3, 127, 134

resources, making best use of, 133
 systematic theoretical account of IP, 123, 125, 134
 usefulness of philosophy for considering problems of regulation, 123, 124–5
 weighing of goods of creativity against other goods, normative question of, 138–9

ordre public and morality, relationship between concepts of, 147, 163. *See also* morality exclusions
 originality in copyright law versus novelty in patent law, 207–12
 orphan drugs, 13, 26, 133
 Ossorio, P., 257
 ownership of property. *See* property rights

Panke, S., 178
 parasitism, 263–4
 Pasteur, Louis, 183
 patent thickets, 137
 patents. *See also* morality exclusions; prizes as a patent alternative; Trade-Related Aspects of Intellectual Property Rights (TRIPS) regime
 'best mode' requirements, 258
 communicative/Kantian aspects of, 22–3, 255–9
 consequentialist understanding of, 255–7, 259
 contents of patent document, 151
 copyright distinguished, 206, 207, 211
 defined, 96
 intelligibility, as Kantian communicative principle, 256–9
 invention versus discovery, applicability to, 17
 monopoly power as internal threat to, 9, 96–9
 novelty in patent law versus originality in copyright law, 207–12
 piracy as external threat to, 9, 99–100
 problems with, 96–100
 peer-to-peer file sharing. *See* music industry, P2P file sharing in
 Peru, 74
 Petit, Elodie, 155–6
 philosophy of intellectual property, 1–32
 access and availability issues, 12–13, 110–21. *See also* access and availability problems with IP regime
 autonomy arguments for intellectual property, 3–5, 33–57. *See also* autonomy and intellectual property

338 Index

- philosophy of intellectual property (cont.)
 communicative account, 21–4,
 225–60. *See also* communicative
 account of copyright law
 comparative nature of, 30–2
 corrective justice, 5–8, 58–87. *See also*
 corrective justice and rights in TK
 different frameworks for approaching, 33
 free riding, 24–9, 261–83. *See also* free
 riding as morally acceptable
 metaphor and analogy, use of, 17–18,
 172–202. *See also* metaphors and
 analogies in synthetic biology
 moral philosophy. *See* moral philosophy
 morality exclusions from IPR, 15–16,
 140–70. *See also* morality exclusions
 optimal regulation of IP and, 13–15,
 122–39. *See also* optimal IP
 regulation philosophical
 contributions to
 prizes versus patents, 8–12, 88–109. *See*
also prizes as a patent alternative
 rights-based account, 18–21, 203–24. *See*
also rights-based account of
 copyright law
 social dimension of music sharing, 29,
 284–306. *See also* social dimension of
 music copying and sharing
 PhytoMetaSyn project, Canada, 177
 piracy. *See also* music industry, P2P file
 sharing in
 as economically rational, 11
 as external threat to patents, 9,
 99–100
 utilitarian view of, 10
 Pogge, Thomas, 12, 109, 110, 112, 114,
 115, 121
 ‘poisoned fruit’ of preceding research,
 immoral exploitation in sense of,
 149, 150, 159, 161
 policy-driven, incentive-based account of
 copyright law versus rights-based
 account, 207
 policy levers, morality exclusions as, 141,
 156–64, 168–9
 policy recommendations based on
 theoretical account of IP, 123, 125
 polio virus, synthesised, 172
 political philosophy. *See also* liberal political
 theory
 communicative account of copyright law,
 ramifications of, 23
 democratic elections, IP lessons from
 organisation and financing of, 31–2
 non-voting as free riding, 27
 pooling strategies for indigenous rights in
 TK, 74
 Popper, Karl, 101
 positive law versus natural law schools on
 relationship between law and
 morality, 155
 practical reasonableness, Aristotelian
 concept of, 287, 292
 price mechanism in competitive markets, as
 efficient information processing
 mechanism, 108
 principled versus individual autonomy, 231–5
 Priority Review Vouchers, 115
 privacy law
 copyright law versus, 20, 213–15, 216,
 217–18
 property rights, relationship to, 2
 private property
 ideas as public as well as private goods,
 14–15
 IP regarded as, 122–3, 127, 134
 private versus public reason, 231, 235–40
 privately sponsored prizes as a patent
 alternative, 105–6
 prizes as a patent alternative, 8–12, 88–109
 adaptation of scientific discovery regime
 to practical invention, 9–10, 104–6
 celebrity, as prize, 106
 ethical approach to, 12
 first mover advantage, as prize, 106
 government-sponsored prizes, 104–5
 incentivisation problems, 109
 information processing mechanism,
 problem of, 108–9
 monopoly power as internal threat to
 patents, 9, 96–9
 music industry’s winner-takes-all market
 compared, 27–9
 near-public goods character of good new
 ideas and, 88–96
 piracy as external threat to patents, 9,
 99–100
 privately sponsored prizes, 105–6
 problems arising from patent regime,
 96–100
 pure science, non-property reward system
 in, 101–4
 rent-seeking problems with, 106–7
 Simple Prize Scheme, 114
 welfarist approach of, 8–12, 88
 producer, consumer, and entrepreneurial
 interests
 conflicts between and within, 30
 legal protections for both producers and
 consumers, need for, 15

- moral rights of users versus inventors, 126, 127
- productivity-based arguments regarding intellectual property rights, 91–3, 97–9
- property rights
 - autonomy and property ownership, 47
 - conventionally accepted standard or public consensus regarding, 281
 - copyright
 - communicative account of, 227, 242–3
 - problems with regarding copyright as property right, 226
 - protection of acts of authorship rather than property, as 21, 204, 206, 207–12, 215–16, 217, 222, 242–3
 - income rights and control rights, 3
 - indigenous peoples' rights to TK based on, 60
 - intellectual property as property, 2–3
 - Kant's theory of property, 242
 - metaphysical chattel, concept of, 216
 - natural rights arguments regarding, 94–6
 - privacy, relationship to, 2
 - real and chattel property, extension of intellectual property considerations to, 95
 - social relations approach to justification of, 55
 - trade marks as speech versus property, 245–7
- prospect theory, 136
- protest or objection, social ethics of, 302
- public communication versus self-expression, 231, 234–5
- public consensus or conventionally accepted standard
 - for morality exclusions, 153
 - on property rights, 281
- public domain
 - allusive use of trademarks in, 247–54
 - consequentialist understanding of, 241
 - fair use in. *See* fair use or fair dealing
 - Kantian understanding of public reason and, 22, 240–1
 - public interest distinguished, 240
 - transformative works of authorship in, treatment of, 22, 243–4
- public goods
 - defined, 265–6
 - free riding and. *See* under free riding as morally acceptable
 - governmental control of, 90, 266, 278
 - ideas as, 14–15, 88–96, 268–70
 - public interest distinguished from public domain, 240
 - public reason, Kantian understanding of, 231, 235–40. *See also* Kant, Immanuel
- Radin, Margaret Jane, 46
- Ravvin, Michael, 113
- Rawls, John, 23, 35, 38, 56, 124, 226, 236
- Raz, J., 38
- readers. *See* producer, consumer, and entrepreneurial interests
- Redi, Francesco, 183
- reductionist understanding of law, corrective justice distinguished from, 62
- regulation of IP, optimal. *See* optimal IP regulation, philosophical contributions to
- rent-seeking behaviour
 - in music industry, 271
 - prizes as a patent alternative, 106–7
- reparations. *See* corrective justice and rights in TK
- research use exemption, 158, 160, 170
- resources, making best use of, 133
- restorative justice. *See* corrective justice and rights in TK
- reward systems. *See* prizes as a patent alternative
- Richardson, Henry, 138
- rights. *See also* control rights; income rights; moral rights; property rights
 - goals distinguished from, 125–6
 - human rights, 40, 60, 75
 - natural rights, 47–8, 94–6, 116–18, 121
- rights-based account of copyright law, 18–21, 203–24
 - acts of authorship rather than property right as thing protected, 21, 204, 206, 207–12, 215–16, 217, 222
- authorship, copyright as protection of, 18–19, 20
- autonomy of author as speaking being, 222, 223
- Baker v. Selden*, 209–12, 221, 224
- communicative act, copyrighted work as, 206, 209–12, 220, 223
- compelled speech, copyright violations as form of, 21, 204, 206, 212–19
- definitions pertinent to, 203–4
- fair use, concept of, 19–20, 219–22, 223
- implications of, 222–4
- Kant and, 21–2, 204–6, 212, 224
- misattribution versus copyright, 215, 217

340 Index

- rights-based account of copyright law (cont.)
 misrepresentation versus copyright, 215, 217
 originality in copyright law versus novelty in patent law, 207–12
 policy-driven, incentive-based account versus, 207
 privacy law versus copyright law, 20, 213–15, 216, 217–18
 published versus unpublished works, 212–19
 unauthorised nature of copyright violations, significance of, 20–1, 212–19
 users and authors, interplay between, 18
 Rights Justification Principle, 128
 Rose, Steven, 181, 193
 Rosenberg, Alex, 14, 27–9, 88, 118–19
 Rousseau, Jean Jacques, 281
 Rubinfeld, J., 48
 Ruse, Michael, 174
- sampling (music), tradition of, 297
 San people, South Africa, 69
 Schultz, Mark, 294, 295, 296
 Schultz, Peter, 186
 self-expression versus public communication, 231, 234–5
 self-government, definition of autonomy as, 35. *See also* autonomy and intellectual property
 Sellers, William, 177
 sharing music. *See* music industry, P2P file sharing in
 Sher, George, 71–2
 Sherman, B., 245, 254, 256
 Simple Prize Scheme, 114
 simplicity of nature, as pervasive idea in history of biology, 193
 slavery of African Americans, reparations for, 71, 82
 Smiers, Joost, 271
 Smith, Hamilton, 172, 176, 177
 social dimension of music copying and sharing, 29, 284–306
 ‘copynorms,’ concept of, 294–6
 lack of moral qualms in practitioners, 284–6
 music, social function of, 296–9
 nature of music industry and, 286
 protest or objection, social ethics of, 302
 virtue ethics
 applied to music sharing, 296–305
 concept of, 287–93
- social justice, 113, 160–1
 social relations approach to justification of property rights, 55
 social self and individual autonomy, 36, 41–4
 social utility of IP, 158
 Solum, Lawrence, 295
 Sonderholm, Jorn, 12–13, 14, 26, 109, 110
 South Africa, San people of, 69
 speech
 compelled. *See* compelled speech
 copyright as. *See* communicative account of copyright law; rights-based account of copyright law
 idea/expression dichotomy, 220, 221
 trade marks as, 22–3, 245–55
 Spence, Michael, 227, 233, 245–7, 249–54
 spontaneous generation, 183
 standardisation of parts, devices, and systems (modularity) in synthetic biology, 176, 177, 193
 standards of morality
 conventionally accepted standard or public consensus
 for morality exclusions, 153
 on property rights, 281
 enforcement of compliance and, 281
 required to trigger morality exclusions, 147–8, 152–4, 161
 social ‘copynorms,’ concept of, 294–6
 Starling, Ernest, 183
 stem cells, morality exclusions regarding patents on, 140, 141, 151–2, 164–9
 Stenson, A., 50, 52–3
 Storey, Joseph, 145
 Strahilevitz, Lior, 294, 296
 Strevens, Michael, 102–3, 104
 strong deliberative commensurability, 138
 Sunder, M., 55
 synthetic biology, use of metaphors in. *See* metaphors and analogies in synthetic biology
- Taylor, Charles, 42
 technical character test for patentability in Europe, 198
 Thailand, 144
 Thambisetty, S., 258
 Thomas Aquinas, 287
 trade barriers, libertarian and welfarist traditions on need to eliminate, 121
 Trade-Related Aspects of Intellectual Property Rights (TRIPS) regime, 110

- life forms, patentability of, 200
- moral exclusions and, 142
- technologically advanced nations, importance for, 99
- trade secrecy, 132
- trade marks. *See also* Trade-Related Aspects of Intellectual Property Rights (TRIPS) regime
 - allusive use of, 247–54
 - communicative/Kantian aspects of, 22–3, 245–55
 - expressive autonomy of holder of, 249–55
 - informative versus persuasive roles of, 22, 23
 - speech versus property, as 245–7
- traditional knowledge (TK). *See also* corrective justice and rights in TK; indigenous peoples' rights to traditional knowledge
 - defined, 58–9
 - intellectual property, as 59
- tragedy of the commons, 122
- trans-national value, autonomy as, 55–6
- transformative works of authorship
 - allusive use of trademarks and, 251
 - fair use in copyright law, rights-based account of, 19–20, 219–22, 223
- Kantian/communicative account of public reason and copyright law, 22, 243–4
- transgenic animal patents, morality exclusions for, 140, 149, 152, 154
- treaties, as means of targeting TK rights, 74–81
- Treiger-Bar-Am, Leslie Kim, 21, 232, 233, 234
- Tsosie, R., 49
- Turing, Alan, 184
- Tushnet, R., 253
- United Arab Emirates, 144
- United Kingdom
 - 'best mode' requirements for patentability in, 259
 - chemicals, patentability of, 199
 - compulsory licensing scheme, 158, 160, 170
 - Crown use exemption, 158, 160, 170
 - government research funding in, 105, 107
 - research use exemption, 158, 160, 170
- United States
 - 'best mode' requirements for patentability in, 259
 - chemicals, patentability of, 199
 - compelled speech, cases on, 21, 250
 - Declaration of Independence, 95
 - government research funding in, 105, 107
 - life forms, patentability of, 198, 199, 201
 - machine-or-transformation test for patentability in, 198
 - morality exclusions and moral utility doctrine, 144–5
- Uruguay Round, 110
- users. *See* producer, consumer, and entrepreneurial interests
- utilitarianism
 - immoral exploitation in sense of utilisation, 149, 150, 151, 158, 159
 - IP, utilitarian purpose of, 157
 - morality exclusions, utilitarian standard for, 152
 - trade marks and, 249
- value, autonomy as, 38–41
- value pluralism, 138
- Venter, Craig, 172, 176, 177
- Versailles, Treaty of (1919), 60
- Virchow, Rudolph, 183
- virtue ethics
 - applied to music sharing, 296–305
 - concept of, 287–93
- vitalism, 183
- von Neumann, John, 184, 188
- Waldron, J., 130, 233
- Wallace, A. R., 102
- Warren, Samuel, 217
- Watson, James, 193
- Weinrib, E. J., 62
- welfarist arguments regarding intellectual property rights, 8–12, 88. *See also* prizes as a patent alternative
 - definition of welfarism, 88, 118
 - ethical defence of IP, 118–21
 - free trade, importance of, 121
 - near-public good nature of good new ideas, 88–96
 - patents, problems arising from, 96–100
 - productivity-based arguments, 91–3, 97–9
 - technological arguments, 93–4, 99–100
- Whitney, Eli, 177
- Wild-Card Patent Extensions, 115
- Williams, Garrath, 239
- Wilson, James, 13–15, 122

342	Index
winner-takes-all competitions	patent alternative, as. <i>See</i> prizes as a patent alternative
democratic elections, IP lessons	patent rights versus copyright, in 27–9
from organisation and financing	Wöhler, Friedrich, 183
of, 31	
in music industry structure, 270–4,	yeasts, metabolic engineering of, 177, 178
286, 302, 304	