
Index

- Action arena, 16, 44, 45, 49, 53–57, 289
- Academic journals. *See* Journals
- Adaptive systems, 64, 66, 68. *See also* Robust Systems
definition, 349
- Advocacy, 32, 86, 102, 193–194, 257
- Alienability, 29, 33, 52–53
- Amazon.com, 99, 196–197, 252
one-click method, 252
search Inside the Book, 196
- American Anthropological Association, 95–96
- American Library Association, 91, 101–102
- Anderson, James, 258
- Andrew W. Mellon Foundation, the, ix–x, 96, 100, 107, 148, 156, 160, 161, 328
- AnthroCommons, 95
- AnthroSource, 95
- Anticommons, 11, 61. *See also* Enclosure; Overpatenting; Patents; Tragedy of the Commons
definition, 349
- Apache Web Server, 278, 284
- Aquifer Project, 324–325
- Archives, 18, 20, 100, 106, 108, 140, 149–156, 159–60, 311. *See also* arXiv.org; Digital Libraries; Libraries; Self-archiving
community-based archives, 155–159, 161
consumer, 155, 323
costs, 173
definition, 159–160
digital, 315
disappearing act, 161
global archives, 54
Internet Archive, 148, 151
libraries as, 312
open access archives, 187–188, 190–192
Open Archives Initiative, 48, 97, 160, 173, 315, 338
organizational, 152–153
preservation, 322–323
producer, 153–155, 157, 323
repositories, 190
specialist archives, 133–134, 140
- Artifacts, 46–48, 53–54, 64, 106, 127, 149, 232–234, 236, 250, 260, 336–340, 342, 344–346
definition, 47–48, 350
- Artificial Intelligence Lab, 333, 341, 342, 344
- ARTstor, 161
- ArXiv.org, 98, 110, 317–318
- Ashcroft, John, 90
- Association of College and Research Libraries (ACRL), 102
- Association of Research Libraries (ARL), 102

- Associational Commons, 19, 50, 249–251, 263, 341
 definition, 251, 349
 Atkinson, Ross, 321–322, 324–325
 Attributes of the community. *See*
 Community attributes
 Authors (as information providers)
 13, 18, 21, 45, 52–53, 55, 59,
 64–66, 93, 98–99, 102,
 107–109, 153–154, 174–178,
 182, 184, 186–196, 222–223,
 247, 283, 285, 287, 293, 295,
 319–322. *See also* Copyright
 (holders); Faculty; Scholarly
 communication
 Attribution, 295

 Baen Free Library, 196–197
 Barnes, Peter, 31
 Benkler, Yochai, 13, 93, 128
 Berghel, Hal, 315
 Berlin Declaration, 56–57
 Berry, Wendell, 34
 BioMed Central (BMC), 96, 107,
 183
 BMC's *Journal of Biology*, 192
 BioOne, 96–97
 Biophysical characteristics, 45–48,
 286–287
 Blog, 36, 61, 105, 316
 Bolar Amendment, 239–241
 Bollier, David, xiii, 15, 93
 Borgman, Christine, 312
 Boundaries, 5, 7, 11, 20, 45–46, 98,
 100, 104, 106, 124, 128, 152,
 236, 298, 311, 313, 317, 327
 Boyle, James, ix, xi, 12, 17, 30, 102,
 105, 109, 251, 263
 Boyte, Harry, 247, 265
 Brown, Pat, 96
 Brown, Sheridan, 187, 192
 Buck, Susan, 31
 Budapest Open Access Initiative
 (BOAI), 96, 136, 171
 Bush, George W., 91

 Caesar, Julius, 45
 Card, Andrew, 91
 Carson, Rachel, 30
 Center for the Public Domain, 103
 Chamberlin, Edward, 336
 Chemistry, 319
 Chen, Hsinchun, 334
 Children's Internet Protection Act,
 90, 102
 Citizenship, x–xi, 16, 19, 86, 93,
 247, 254, 257, 263, 268
 Civil society, 112, 251, 267–268
 Club goods (includes toll goods), 9,
 159, 162, 300, 302
 Coalition for Networked Information
 (CNI), 97
 Coase, Ronald, 222–224
 Code (computer), x–xi, 13, 51, 252,
 280, 282, 285–288, 294–295,
 298
 Collaboration, x–xi, 18–19, 34–35,
 59, 66, 94–97, 99, 101,
 103–106, 147, 215, 247, 259,
 264, 277–281, 286–292, 295,
 298–299, 301–303, 311–312,
 315, 317, 320, 324, 326–327,
 329, 334. *See also* Peer
 production
 Collaboratories, 13, 20, 326
 definition, 349
 Collective Action, 5–6, 10–11,
 13–15, 18, 21, 43, 52, 58, 86,
 93, 100, 103, 105–106, 108,
 110, 146, 247, 254, 256, 261,
 280, 303
 definition, 349
 organizations, 206
 Committee on Institutional
 Cooperation (CIC), 108
 Commodification, 4–5, 12, 14, 28,
 49, 61, 194, 219, 229, 232, 235
 definition, 349
 Common good, 5, 8, 18, 94, 105,
 109, 184, 254, 334. *See also*
 Public good

- Common Information Environment Group, 99
- Common Pool Resources, 5–7, 9–10, 15–16, 43, 62, 95, 100, 146, 149, 250, 261. *See also* Club goods; Commons; Design principles; Public goods definition, 349
- Common Property, 5–6, 87, 94, 182, 279–281, 283, 302 definition, 349
- Commons. *See* Anticommons; Associational Commons; Common Pool Resources; Cornucopia of the Commons; Digital Commons; Global Commons; Financing the Commons; Libertarian Commons; Public goods, Tragedy of the Commons definition, 349
- Commons-based production, 13, 35, 93, 129 definition, 349
- Commons history, 4–7, 10–13, 28, 87, 130, 231, 278
- Communication Decency Act (CDA), 102
- Community attributes, 284–286, 287, 289
- Community-based archives, 155–157
- Complexity, 5, 9, 59, 66–68
- Compliance, 57, 61, 66–67, 188. *See also* Noncompliance
- Concurrent Versioning System (CVS), 287–288
- Conflict, 4, 43, 59, 61, 66, 67, 219, 231, 260, 284
- Conflict resolution, 7, 11, 298
- Congestion, 4, 28, 47, 339
- Conservation Commons, 27, 98
- Consumers, 89, 94, 129, 140, 151–158, 162, 212, 214, 224, 268, 274, 320, 323, 335
- Consumerism, 268
- Copyleft, 281–284, 291, 302. *See also* Stallman, Richard
- Copyright, 13, 16, 17, 18, 48, 52, 53, 99, 102, 110, 125–127, 129, 134, 139, 154, 161, 172, 175–182, 187, 188, 194, 211–216, 221–222, 225–237, 242, 252, 280–283, 288, 295, 316, 350, 351. *See also* Copyleft; Copyright Term Extension Act; Digital Millennium Copyright Act (DMCA); Fair Use; First Sale; Intellectual Property Rights; Patent Law; Trademark Law holders, 125, 174, 176, 179–182, 188, 197, 214, 221–222, 235, 238, 291 industry, 90 infringement, 236–238, 293 law, 35, 47, 51, 52, 86, 89–90, 96, 97, 111, 125–127, 159, 161, 176, 193, 209, 211–216, 220–222, 228, 235–237, 242, 278, 281–282 protection, 17, 36–37, 149 restrictions, 17, 136, 171 terms, 10, 89, 97, 125–127, 137, 230 transfer agreements, 191, 235 Copyright Clearance Center, 222 Copyright Term Extension Act, 13, 89
- Cornell University, 98, 107
- Cornucopia of the Commons, 34
- Cost-benefit analysis, 33, 196
- Costs, 44, 55, 59, 64–65, 107, 132–133, 136, 162, 182, 257, 263, 278, 301, 342. *See also* Digitization, costs of; Peer review, costs of; Price barriers; Publication costs; Subscriptions; Transaction costs
- Cox, James, xi, 21, 334

- Crane, Diana, 313, 318
 Creative Commons, 37, 52, 53,
 102–103, 291–293, 295
 Creativity, 226. *See also* Innovation
 Cronin, Blaise, 57
 Customs, 213, 220, 221, 222,
 224–225
- Da Vinci, Leonardo, 217
 Davenport, Thomas H., 8
 David, Paul A., 277
 Degradation, 5, 28, 61
 Democracy (includes democratic
 systems), 13, 30, 49, 85–86,
 92–93, 104, 105–106, 140, 229,
 232–234, 253–256, 261, 263,
 267, 314, 334. *See also*
 Citizenship; Governance; Self-
 governance
 discourse, 95, 111
 libraries role in, 16, 85, 93, 109,
 111
 participation (*see* Participation, in a
 democracy)
 processes, x–xi
 principles, 86
 values, 38, 232
- Design Principles, 7, 68, 124,
 135–136, 138–139
 definition, 350
Diffuse Libraries, 103
 Digital Commons, 13, 14, 49, 60
 Digital Divide, 61, 65, 92, 183
 Digital libraries, xi, 20, 65, 97,
 98–99, 106, 321–324, 329,
 333–334, 336, 338, 340–344,
 346–347. *See also* Archives;
 Repositories; Libraries
 ArXiv.org, 98, 110, 317–318
 Baen Free Library, 196–197
 Digital Library of the Commons,
 ix, 31, 59, 98
 EconPort, 333–347
 eScholarship, 97
 Public Library of Science (PLoS),
 96, 183, 192
- Digital Library of the Commons, ix,
 31, 59, 98
 Digital Millennium Copyright Act
 (DMCA), 13, 51, 89
 Digital Opportunity Investment Trust
 (DO IT), 99
 Digital Promise Project, 99
 Digital Rights Management (DRM),
 37, 51, 86, 89, 96, 182
 Digitization, 87
 costs of, 172
 Directors Guild of America, 221–222
 DISPUTE, 97
 Distance learning, 110, 293, 294,
 296, 300, 301. *See also* Teaching
 Distributed Open Digital Library
 (DODL), 99
Dred Scott Decision, 230
 DSpace, 56, 64, 97, 153, 301, 322
 Du, Jianxia, 258
- eBay, 28, 335
 Economic efficiency. *See* Efficiency
 Economic goods, 5, 8–10, 16, 34, 52,
 94, 146, 149, 151, 159, 182,
 211, 250–251, 254, 256–260,
 265–267, 278, 300, 311, 315.
See also Club goods; Common-
 pool resources; Private goods;
 Public goods
 Economic Science Laboratory, 333,
 335, 337, 341, 342, 346
 Economics. *See* Economic goods;
 Experimental economics;
 Microeconomics
 EconPort, 20, 27, 333–347
 EconWPA, 98
 Education, 49, 57, 339, 161, 162,
 215. *See also* Distance learning;
 Engaged university; Teaching;
 Universities
 civic, 257
 higher, 42, 88, 156, 360–363
 institutions, 109
 policy, 267
 public, 38

- Educational psychology, 226–227, 235
- Efficiency, 3, 6, 62, 64–65, 182, 211, 223, 286, 336
definition, 350
- Eisen, Michael, 96
- Eldred v. Ashcroft*, 89, 230–231
- Electronic journals, 14, 294–297, 300, 317. *See also* Journals
preservation of, 148–163 (*see also* LOCKSS; Portico)
vs. traditional journals, 318
- Ellickson, Robert, 221
- Emrich, Frederick, 112
- Enclosure, 4, 5, 12, 32, 38, 60–61, 85–112, 181, 188, 252. *See also* Anticommons; Second Enclosure Movement; Tragedy of the Commons
definition, 350
- Encryption, 36, 89
- Encyclopaedia Britannica*, 129
- Engaged university, 260–263
- Eprints Open Source Software, 57
- Equity, 6, 29, 43, 61–62, 64–66, 95
definition, 350
- Érudit, 97
- eScholarship, 97
- Ethics of Memory*, 163
- Evaluative criteria, 62–66
- Exclusion, 213–219, 224, 229–230
- Executive order 13233, 91
- Experimental economics, 335–343, 346
- Facilities, 47, 103, 106, 250, 328
definition, 350
information, 336
provision of, 65
- Faculty, 10, 54–58, 61, 63, 85, 92, 97–98, 101–108, 110, 153–154, 185–187, 189–190, 192–194, 248, 260–263, 268, 294, 299–300, 341, 345. *See also* Authors; Teaching
- Fair use, 37, 51, 89, 93, 102, 110, 176, 177, 178, 182, 215, 216, 218, 221, 224, 236–237. *See also* Copyright; First Sale
- File sharing, 89–90, 212, 234–238.
See also Peer-to-peer
- Film, 37, 124–127
- Filters, 90, 102, 183
- First amendment, 110, 215–216, 218, 232
- First sale doctrine, 37, 177, 178, 182, 215. *See also* Copyright; Fair use
- Fiscal equivalence, 62, 65–66
- Flickr, 36
- Food and Drug Administration, 214, 239
- Fragaszy, Dorothy, 226–227
- Fragmentation, 328
- Framework. *See* Institutional Analysis and Development Framework
definition, 350
- Franklin, Benjamin, 182, 250
- Free/Libre and Open Source Software (FOSS), 15, 19–20, 34–35, 43, 48, 97, 128, 131, 134–135, 138–139, 153, 173, 195, 225, 277–303. *See also* Code (computer); Concurrent Versioning System (CVS); Intellectual property rights, and software; Linux; GNU; Stallman, Richard
collaboration, 277–281, 286–292, 295, 298–299, 300, 301–303 (*see also* Collaboration)
financing, 298–302
licensing, 280, 281–284
management of, 297–298
as a model for the science commons, 288–302
volunteerism in the development of (*see* Volunteerism, and open source software)
- Free market, 27, 35, 214, 229

- Free riding, 4–5, 10, 33, 58, 129, 131, 150, 159, 186, 252, 337
 definition, 350
- Freedom of Information Act, 90
- Freedom principles, 282, 294
- Frischmann, Brett, 210–211
- Game theory, 11, 334, 339. *See also*
 Prisoner's dilemma
 non-zero-sum game, 11
 zero-sum game, 267
- Genetic information, 28, 33
- Ghosh, Shubha, 13, 147
- Ginsparg, Paul, 98, 318
- GIS, 258
- Global commons, 4, 10, 13, 32, 41
- GNU, 35, 281–282. *See also*
 Free/libre and Open Source
 Software (FOSS); Linux
 Free Documentation License
 (GFDL), 291–293
 Public License (GPL), 282–283,
 295
- Gone with the Wind*, 214
- Goods. *See* Common-pool resources;
 Economic goods; Private goods,
 Public goods
- Google, 108, 124, 129, 134, 184,
 252–253
- Google Print, 99
- Gordon and Betty Moore
 Foundation, the, 96
- Governance, 5, 7, 15, 19, 29, 33, 36,
 43, 51, 66–67, 86, 94, 95,
 104–106, 110, 211–212, 225,
 232–238, 241–242, 284,
 297–298, 329. *See also* Self-
 governance
 democratic, 106, 232–235
 local, 256, 263–264, 282
 project, 281, 283–284, 287
- Governing the Commons*, 31
- Government, 11, 16, 17, 32, 62, 86,
 87, 102, 111, 151, 183,
 232–234, 253, 255, 263–264,
 266, 286. *See also* Governance;
 Self-governance
- funding, 87, 136, 149, 150, 180,
 187–188, 232, 266, 294, 299,
 301
- information, 13, 14, 86, 87, 90–94,
 100, 102, 177, 234
- property, 53
- publications, 87, 91, 100
- restrictions, 91, 183, 213, 253
- Grafton, Anthony, 145–146, 148
- Gray literature, 177
- Greenpeace, 30
- Greenstein, Daniel, 99
- Grokster, 89. *See also* *MGM vs.*
Grokster
- Hardin, Garrett, 10–11, 13, 15, 32,
 92, 95, 150–151. *See also*
 Tragedy of the commons
- Harnad, Stevan, 56, 98
- Heller, Michael, 11
- Hess, Charlotte, ix, xi, 28, 94–95,
 106, 147, 249–250, 255, 280,
 284, 289, 297, 312
- Hesse, Carla, 231
- Hewlett-Packard Labs, 97
- Hissam, S. et al., 285
- Hobbes, Thomas, 150
- Holmes, Justice Oliver Wendell, 225,
 226, 227–228
- Holocaust Museum, 233
- Humanities, 99, 124, 172, 174, 234,
 319–320
- Hyland, Ken, 313
- Hyperchange, 9, 59–60, 312
 definition, 350
- IAD framework. *See* Institutional
 analysis and development
 framework
- Ideas, 7, 8, 9, 47–48, 94, 106, 112,
 232, 250, 260, 290, 311, 313
 access to, 85, 96
 and copyright, 17, 229
 definition, 350

- exchange of, 18, 93, 102, 103, 105, 109, 111, 211
 free flow of, 102, 231, 252
 preservation of, 103, 105
 as private goods, 300
- Imitation, 235
 and the creation of the knowledge commons, 211–212, 225, 237
 and the creation of knowledge, 226–228, 234
 and intellectual property rights, 19, 225–226, 227, 228, 238, 252
 and pharmaceutical research, 239–242
- Incentives, 11–12, 50, 64, 108, 138, 163, 182, 184, 192, 210, 250–252, 290–291, 294, 334, 342–344. *See also* Motivation
 and copyright, 125–126, 129, 149, 176
 definition, 350
 and free riding, 150 (*see also* Free-riding)
 and intellectual property rights, 215, 217, 223
 and journal submissions, 18, 174, 176, 182, 185, 186, 189, 191–192 (*see also* Journals)
 and the market, 158–159
 nonmonetary, 134, 174, 176
 and open access, 55–56, 59, 189, 192, 210, 294 (*see also* Open access (OA); Repositories)
 for preservation, 147, 152, 154, 158–159, 163, 323
 structures, 138, 289, 291, 320
- Indiana University, 57, 101, 261. *See also* Workshop in Political Theory and Policy Analysis
- Informatics, 328
- Information Industry Association (IIA), 87
- Information provision, 59, 61, 64, 65, 95, 128, 130, 132, 149
- Infrastructure, x–xi, 47, 66–68, 92, 107, 152, 211, 286–287, 295, 297–303, 329, 339, 342
 cultural, 232–234, 236, 238
- Ingelfinger, Franz, 191
- Ingelfinger Rule, 191
- Innovation, 93, 217, 288, 312, 313, 316, 321
 stimulation of, 35, 38, 85, 94, 154, 231
 thwarting of, 91
- Institutional Analysis, 41–42
 definition, 350
- Institutional Analysis and Development (IAD) Framework, 41–68, 279–280
- Institutional change, 68
- Institutional repositories. *See* Repositories
 definition, 350
- Institutions, ix, 7, 41–42, 46, 57, 67, 103–104, 163, 217–218, 232, 256, 263, 265–267, 294, 335. *See also* Design principles; Norms; Rules
 definition, 350
- Intellectual property rights, x, xi, 10, 11, 52–53, 175, 176, 209–242, 252, 280, 283. *See also* Copyright; Fair Use; First Sale; Patents; Overpatenting
 absence of, 138
 and copyleft, 283, 291
 definition, 350
 digital, 139, 161
 education about, 255
 expansion of, 10, 11, 12, 52, 230
 legislation, 13, 14, 161
 relinquishing of in royalty-free literature, 175, 176
 as rules, 52–53
 and software, 277, 278–279
 theory of, 138
- intellectual public domain. *See* Public domain

- Interdisciplinarity, ix, 4–6, 9, 12, 41, 59, 61, 247, 262, 289, 325–326
- International Association for the Study of Common Property (IASCP), 6, 31
- Internet, 90, 132, 138–139, 236, 252, 267. *See also* World Wide Web
- access to, 91–92
 - as a commons, 30, 35
 - as a shared resource, 4
- Internet Archive, 99
- Interoperability, 13, 61–62, 325
- Invisible Colleges, 313–314, 318
- iPod, 246
- Irving, Larry, 92
- Ithaka, 156
- Java, 290, 339
- Journals, 262, 288–289, 315. *See also* Electronic journals; Peer review; Publication costs; Publishing Industry; Subscriptions
- censorship of, 91
 - humanities, 319–320
 - open access, 55, 56–57, 95–97, 136–137, 171–197
 - scientific, 88, 90–91, 317–319
 - and self-archiving, 98
 - subscription costs of, 16, 88, 36–37, 87–88, 107–108, 195
- JSTOR, 156, 161, 162
- Kahle, Brewster, 148, 151
- KaZaA, 89
- Keynes, John Maynard, 27, 31
- Kling, Rob, 317
- Knowledge
- advancement of, 175, 313, 320
 - definition, 7–9
 - dissemination of, 56, 58, 62, 86, 98, 100, 104, 106, 147, 210, 219, 258, 313, 322, 324, 333, 340
 - ecosystem, x, 3, 14–15, 109
 - indigenous, x, 8, 62
 - local, 58, 247, 255, 262
 - management, 211, 329
 - public, 91, 247
 - reliable, 129, 131, 146, 155, 257, 277
 - as a resource, 3, 5, 7–10, 49, 65, 101, 110, 147, 247
 - scientific, 55, 62, 278, 292, 301–302, 319, 327
- Knowledge commons history, 3–4, 12, 15, 18, 20, 28, 34, 134, 139, 231, 277
- Kranich, Nancy, xi, 13, 16, 48, 57, 60, 147, 320
- Land-use change modeling, 289–294, 296–297
- Lavoie, Brian, 151
- Lawrence, Steve, 186
- Learned societies, 96, 193, 319
- Leopold, Aldo, 30
- Lessons learned, x, 43–44, 62, 67, 68, 98, 111, 138, 261, 264, 298, 303
- Lessig, Lawrence, 102, 161
- Levine, Peter, xi, 49–50
- Lexis/Nexis, 14, 88
- Libertarian commons, 19, 250–253, 341
- definition, 350
- Librarians, 56, 59, 85–86, 105–106, 109–110, 133–134, 184, 190, 193, 314, 328, 333. *See also* American Library Association
- as stewards, 13, 92, 94–95, 98, 101–105, 111, 190–191
- Libraries, x–xi, 4, 13, 36, 46, 47, 61, 64, 65, 126, 139, 156–157, 173, 193, 250. *See also* Archives; Digital libraries; Repositories
- access to, 251
 - as catalysts, 20, 311, 326–327
 - as control zones, 321–323
 - as cornerstones of democracy, 16, 85, 93, 109, 111 (*see also* Democracy)

- public, 90
- research, 27, 85–86, 87, 88–89, 101, 103–108, 147, 153–154, 173–174, 301, 311–312
- as systems and services, 323–326
- Library of Congress, 124–126, 128, 139, 156
- LibLicense-L, 154–155
- Licenses, 14, 37, 51, 88–89, 100, 102, 107, 147, 157, 160, 240, 280, 282–283, 291–296, 302, 321, 326. *See also* Creative Commons; LibLicense-L
- Click Through, 37
- Open-Content, 279, 292
- restrictions, 17, 88, 96, 110
- Shrink-Wrap, 37, 88
- software, 281
- Lindbloom, Charles, 229
- Linux, 35, 278, 284, 285, 286, 287, 298
- Litman, Jessica, 128, 129
- Living Reviews*, 316
- Lochner v. New York*, 230–231
- LOCKSS, 100, 157–159
- Logic of Collective Action*, 10
- Lougee, Wendy Pradt, xii, 103–104, 147
- Ludwig von Mises Institute, 196
- Lynch, Clifford, xii, 61, 97, 103, 154, 323, 328
- Machlup, Fritz, 8
- Mannheim, Karl, 255–256
- Mansbridge, Jane, 261
- Margalit, Avishai, 163
- Massachusetts Institute of Technology, 56, 64, 97, 107, 153, 281. *See also* DSpace
- McKim, Geoffrey, 317
- Medline, 136
- Merck v. Integra*, 214, 239–242
- Merton, Robert, 17, 124
- Mertonianism, 123–124, 135
 - definition, 350
- MGM v. Grokster*, 235–238
- Microeconomics, 20, 333–335, 338, 345–347
- Microsoft, 99, 255, 286
- Mitchell, Margaret, 214
- Models, 11, 134, 136, 150, 162–163, 223, 257, 261, 268, 311–312, 315, 320. *See also* Commons; Tragedy of the commons; Prisoner's dilemma
- business, 156–157, 159, 161–163, 172–174, 192, 236, 300–302
- economic, 334–336
- vs. frameworks, 42
- land-use change, 279, 289–291, 296–297 (*see also* UrbanSim)
- of library activity, 321–327 (*see also* Libraries, as catalysts; Libraries, as control zones; Libraries, as systems and services)
- open-source, 298–300
- organizational, 151–157, 278, 329
- publishing and distribution, 174, 185, 192, 288, 291–293, 301, 315–317, 328
- Monitoring, 7, 10, 21, 63, 67–68, 110, 222, 253, 298. *See also* Sanctioning
- Motivation, 157, 283–285, 294, 313, 335, 340–342. *See also* Incentives
- Musgrave, Richard A., 8
- Music, 8, 36–37, 52, 89–90, 109, 124–125, 127, 137, 174–175, 180–181, 197, 222, 227–228, 233, 235–236, 291
- Napster, 89, 237–238
- National Academies Press, 196
- National Education Longitudinal Study (NELS), 258
- National Institutes of Health (NIH), 97, 136

- National Science Digital Library (NSDL), 99, 333, 334, 338, 340, 342
- National Science Foundation (NSF), 99, 333, 341
- Native American Grave Repatriation Act, 233–234
- Neighborhood Associations, 264
- Nested enterprises, 7, 264
- Nestedness, 7, 44, 49, 351
definition, 351
- Networked Digital Library of Theses and Dissertations, 98
- Networks, 13, 34, 88, 103, 105, 277, 313–314
digital, 30, 35–36, 47, 87, 92, 94, 127, 128, 137, 156, 197, 250, 315, 337–338
social, 6, 9, 35 (*see also* Social capital)
- New commons, 4, 15, 28
- New England Journal of Medicine*, 191
- Newman, Judge Pauline, 240–241
- Noncompliance, 50, 58, 61. *See also* Compliance
- Nonrivalry (includes nonsubtractability), 5, 13, 34, 47, 48, 180–181, 183, 186, 188, 210–211
- Norms, 6, 15, 29, 224
- Oakerson, Ronald, 41, 42
- O'Donnell, James, 155
- Olson, Mancur, 10
- Open access (land), 11, 13
- Open access (OA) (information), 10, 13–14, 48, 53, 95, 149, 171–197, 210
definition, 351
for publishing, 37, 55–56
- Open Archives Initiative (OAI), 48, 97, 160, 315
metadata harvesting protocol of the, 172–173, 315, 338
- Open Content Alliance (OCA), 99
- Open content licenses, 294. *See also* Licenses
- Open Knowledge Initiative, 315
- Open science, 13, 55, 61, 277, 278, 292
- Open Society Institute, 96, 107
- Open source definition (OSD), 282–283
- Open Source Initiative (OSI), 282–283
- Open source software. *See* Free/Libre and Open Source Software (FOSS)
- Ostrom, Elinor, ix, xii, 7, 28, 31, 94–95, 106, 130, 147, 249–250, 254, 255, 256, 261, 280, 284, 289, 297, 312
- Outcomes, 5, 13, 59–62
- Overharvesting, 5, 28, 47
- Overpatenting, 4, 10, 11, 14, 61, 350. *See also* Anticommons
- Overpricing, 14
- Overuse, 4, 201, 250
- Oxford Text Archive, 98
- Participation, 7, 36, 57, 61–62, 67, 86, 93–95, 99–100, 133, 137, 140, 158–159, 195–196, 232–233, 267, 286–288, 314, 339. *See also* Collective Action; Incentives; Motivation
in the commons, 28, 34, 94, 253, 263–265, 281, 289–290, 295, 299
incentives for, 55–56, 149, 159, 162, 284–285
in democracy, 93–94, 104–105, 112, 256
low, 59, 298–299
paid, 299
project, 280–281, 285, 294, 301, 303
public, 93
as a right, 52
in rule-making, 50–51, 53–54, 148–149
standards of, 62, 64

- Participatory media, 36
- Patent Act, 214
- Patent Law, 13, 212, 216, 220, 221–222, 224, 226, 228, 241–242
- Patents, 13, 18, 28, 35, 52, 210–214, 220, 222, 228–230, 239–242, 252. *See also* Anticommons; Intellectual Property Rights; Overpatenting
- Path dependency, 41
definition, 351
- Patriot Act, 13, 90, 102
- Patterns of interaction, 44, 49, 50, 53, 57–59
- Pay-per-view, 99
- Peer production, 35–36, 93, 349
- Peer-to-peer (file sharing), 35, 235
- Peer review, 18, 98, 107, 123, 128, 172, 177, 277
alternatives to, 130–132
costs of, 172–174
- Perens, Bruce, 282
- Pew Internet and American Life Project, 258, 264
- Philosophers' Imprint, 174
- PhilSci Archive, 98
- Physics, 98, 172, 316–318, 326
journals, 88
- Piracy, 235
- Plagiarism, 161, 179, 183, 226, 293
- Pluralism, 257
- Pollution, 4, 5, 28, 30, 33, 61, 223, 250, 252, 257
- Polycentricity, 55
definition, 351
- Pope, Carl, 32
- Pornography, 90
- Portico, 100, 156–159
- Precautionary principle, 32
- Preservation, x–xi, 8, 9, 10, 14, 17–18, 20, 21, 48, 61, 63–64, 89, 97, 105, 145–163, 183, 233, 321
community-based, 100, 103, 105, 156–159 (*see also* LOCKSS; Portico)
definition, 351
- Price barriers, 171, 183. *See also* Costs; Digitization, costs of; Peer review, costs of; Publication costs; Subscriptions
- Prisoner's Dilemma, 11, 42
definition, 351
- Private goods, 4, 8–9, 52, 159, 182, 278, 281, 300, 302. *See also* Economic goods
- Private property, 28, 33, 38, 138, 182, 231, 251–252
- Privatization, 11, 12, 32, 38, 86, 87, 92, 150, 242, 267
- Project Gutenberg, 137
- Property rights, 5, 6, 15, 28, 32–33, 43, 52–53, 129, 138, 211, 215, 222, 231. *See also* Copyright; Fair use; First sale; Intellectual property rights; Patent law; Patents
bundles of, 52–53
definition, 351
regimes, 5, 6, 129, 211
and the Tragedy of the Commons, 32, 129
- Proposition, 301, 333–334
- Prusak, Laurence, 8
- Public Access to Science Act, 179
- Public citizen, 32
- Public data, 91
- Public domain, 15, 17, 36–37, 48, 88–89, 92, 95, 99, 102, 123, 125, 138, 171, 177–182, 197, 251, 283, 299. *See also* Center for the Public Domain
definition, 351
- Public goods, 8–10, 13, 16, 29, 48, 52, 58, 129, 146, 149, 151, 157, 159, 162, 182, 186, 211, 250–252, 254, 256, 260, 278, 279, 294, 302, 337, 341. *See also* Club goods; Common good;

- Public goods (cont.)
 Common-pool resources;
 Economic goods; Private goods
 definition, 351
- Public Library of Science (PLoS), 96,
 183, 192
- Publicnews.com, 36
- Public policy, 38, 86, 90–91, 93,
 101–102, 105, 110, 137, 177,
 218, 223, 229, 242, 248, 251,
 253, 261, 267, 333–334
- Public trust doctrine, 32
- “Public work,” 247, 257, 264,
 265–267. *See also* Boyte, Harry
- Publication costs, 65, 132, 172–173,
 300. *See also* Journals;
 Subscriptions
- Authors-pay model for, 66, 96, 107,
 173, 301–302
- Institutions-pay model for, 107,
 173–174, 301–302
- User-pays model for, 300–301
- Publishing industry, 16, 21, 37, 86,
 88, 94, 99, 100, 102, 104,
 107–110, 129, 148, 154–155,
 162–163, 191–192, 193–194,
 196, 300, 315, 317–320,
 321–323. *See also* Electronic
 Journals; Journals; Publication
 costs; Reed Elsevier
- PubMed Central, 97
- Random House, 99
- Raymond, Eric, 195, 282
- Reciprocity, 6, 11, 12, 43, 61, 94,
 104, 106, 254, 335
 definition, 351
- Reed Elsevier, 107–108, 154–155,
 194
- Religious congregations, 251, 264
- Removal, 52–53, 154–155
- Repositories, 10, 16, 18, 21, 37, 45,
 51, 50–67, 97–98, 104,
 105–106, 140, 153–156, 157,
 160, 172, 186, 187, 190, 322,
 336. *See also* Archives; Digital
 Libraries; Digital Library of the
 Commons; Dspace; EconPort;
 Libraries
 definition, 351
- Research, 16, 85, 240, 288
 collaborative, 59, 95, 131, 190,
 279, 298, 302, 326–327,
 334
 funding (*see* Government, funding)
 medical (includes biomedical), 11,
 37, 136–137, 174, 191, 240
 process, 36, 42–43, 55, 60, 94, 136,
 194, 234, 257–259, 288,
 299–300, 336–337, 339
 products, 10, 47–48, 54–55, 58, 64,
 85, 98, 129, 173–176, 196, 288,
 293, 295
 projects, 42, 248, 260–261, 318
 questions, 21, 66, 86, 129, 138,
 248–249, 289
- Resource system, 5, 6, 47, 52, 65
- Resource unit, 46, 47
- Rischar, J. F., 277
- Rivalry, 9, 28, 47, 211
- Robust systems, 14, 298, 323
- Robustness, xi, 7, 10, 15, 34, 49, 66,
 68, 146, 154, 255–257, 298,
 315, 324, 327, 336, 350
- RoMEO Project, 98
- Rose, Carol, 109
- Rowling, J. K., 125
- Royalties, 174–175
- Royalty-free literature, 18, 174–197
- Rules, 7, 10, 11, 12, 15–16, 28, 29,
 33, 37, 41–42, 46–52, 53, 58,
 64, 67, 94–95, 104, 106, 177,
 221, 236, 251, 253, 282–283,
 284, 297, 324, 350, 351, 352.
See also Compliance;
 Institutional analysis; Intellectual
 property rights; Norms; Patterns
 of behaviors
- collective-choice, 50, 255
 constitutional, 50, 255
 definition, 351
 evolution of, 64, 284, 297

- formal, 42, 53, 212, 216, 220–222, 234, 236
- informal, 42
- operational, 50, 52, 255, 287, 298
- in use, 7, 19, 43, 45–46, 49–52, 280–281, 283, 287, 289, 297
- Sabo, Martin, 179
- Safe-harbor principles, 161
- Samuelson, Paul, 8
- Sanctioning, 7, 36, 50, 67, 298. *See also* Monitoring
- San Diego Dialogue, 262
- Scholarly communication, ix–xi, 18, 20, 27, 34, 61, 86, 94–95, 108–109, 123–124, 130, 132, 138–139, 146, 152, 163, 311–330
- crisis in, 102, 105
- definition, 351
- process, 104
- Scholarly Publishing and Academic Resources Coalition (SPARC), 95–96, 102, 153
- Schwartz, Paul, 230–231
- Schweik, Charles, xii, 19–20, 57, 280, 294
- Science Commons, 292
- Science Direct, 88, 154
- Scientific knowledge. *See* Knowledge, science
- Scientific revolution, 278
- Screen Actors Guild, 221–222
- Screenwriters Federation of America, 221–222
- “Second Enclosure Movement,” 12. *See also* Boyle, James
- Self-archiving, 53, 56–57, 64, 98, 155, 319. *See also* Archives
- Self-governance, 6, 14, 106
- definition, 352
- Semantic web, 324
- Semenov, Andrei, 280, 294
- September 11, 2001, 15, 91, 100
- Shulenburg, David, 56
- Sierra Club, 32
- Smith, Adam, 334–335
- Smith, Vernon, 336–337
- Social benefits, 154, 222–223
- Social capital, 5, 6, 56, 61, 94, 106, 131, 247. *See also* Reciprocity
- definition, 352
- Social costs, 222
- Social dilemmas, 4, 5, 13
- Social networks, 6, 9, 35
- Social norms, 29, 32, 33, 227, 312
- Social Science Research Network, 316
- Software Freedom Law Center, 35
- Sourceforge.net, 278, 287
- Space Physics and Aeronomy Research Collaboratory, 226–227
- Spam, 61, 210, 252, 253. *See also* Pollution
- Stallman, Richard, 281–283, 291, 294
- Standards, 51, 61, 62, 64, 66, 95, 96, 98–99, 315, 322
- metadata, 54
- Stanford University, 11, 100, 107, 157, 158, 322
- Statute of Monopolies, 229
- Stewardship, 13, 106, 147, 251, 311–312, 314, 321–322, 329
- definition, 352
- Stone, Sue, 319
- Suber, Peter, xii, 13, 96, 147, 249
- Subscriptions, 9, 16, 36–37, 61, 65, 87–89, 100, 103, 107–108, 134, 154–155, 195, 300. *See also* Electronic journals; Journals; Publication costs; Publishing Industry
- history of, 87–88, 103
- Subtractability, 5, 9. *See also* Rivalry
- definition, 352
- Supreme court. *See* U. S. Supreme Court
- Sustainability, ix, 5, 6, 7, 10, 11, 14, 16–17, 29, 32, 43, 49, 53, 62–63, 94, 100, 105–107, 229,

- Sustainability (cont.)
 256, 315–316, 322, 323,
 342–347. *See also* Preservation
 definition, 352
 of ecological systems, 63
 funding models for, 149, 156, 157,
 161–163, 172–173
 of the knowledge commons, 64,
 86, 89, 94–95, 101, 103, 107,
 112
 of scholarly communication, 85, 329
 Swan, Alma, 187, 192
 Swarthout, J. Todd, 20, 334
- Task Force on Archiving of Digital
 Information, 150
- Teaching, 20, 49, 94, 98, 99, 101,
 103, 107, 146, 147, 154, 227,
 258–260, 326, 333, 335–337,
 339–340, 344–345
- Technology, 46, 51, 67, 92, 101, 111,
 139, 149, 236–238, 278, 311,
 317, 320, 323–324, 326, 328,
 333, 337–338, 241–342
 history of, 133–134, 136
- Tenner, Edward, 155
- Thompson, Hunter S., 226
- Thorin, Suzanne, 99
- Tocqueville, Alexis de, 45, 251, 254
- Toll goods. *See* Club goods
- Trademark law, 35
- Tragedy of the Commons, 10–11, 12,
 15, 18, 32, 92, 106, 129, 130,
 138, 150, 180, 183, 210,
 230–231. *See also* Enclosure;
 Tragic depletion; Tragic
 stalemate
 definition, 352
- Tragic depletion, 183. *See also*
 Tragedy of the Commons
- Tragic stalemate, 183. *See also*
 Tragedy of the Commons
- Transaction costs, 3, 222–223, 225,
 289. *See also* Costs
- Transboundary commons, 4
- Traweek, Sharon, 317–318, 328
- Treanor, William, 230–231
- Tribalism, 59
- TRIPS, 13
- Trust, 11, 12, 43, 56, 59, 104, 106,
 129, 146, 210, 254, 256, 316,
 323, 335. *See also* Patterns of
 Behavior; Reciprocity
- Tucker, A. W., 11
- Two-sided market, 158–159
- Underuse, 11, 58. *See also*
 Anticommons
- Universities, 10, 16, 21, 37, 59,
 65–66, 88, 92, 95, 97–98,
 106–108, 148, 153, 185–187,
 191–192, 247, 260–262,
 299–300, 314, 346
- University of Arizona, 101, 333, 334,
 337, 341, 346
- University of California at San Diego,
 262
- University of California at Santa
 Barbara, 328
- University of Maryland, 19, 247,
 248, 249, 268
- University of Minnesota, 249, 328
- University of Southampton, 57
- University of Virginia, 317, 326
- UrbanSim model, 290
- U.S. Congress, 85, 89–90, 213, 230,
 239
 members of, 160
- U.S. Constitution, 89, 111, 159, 161,
 187, 213, 230, 231
- U.S. Information Security Oversight
 Office, 90
- U.S. Patent and Trademark Office,
 222
- U.S. Supreme Court, 89–90, 214,
 221, 235–238, 240–242
- Vaidhyanthan, Siva, 89
- Van Houweling, Douglas, xii
- Vanishing act, 154–155, 157
- Varmus, Harold, 96
- Visalberghi, Elisabetta, 226

- Visibility, 186, 190
- Voluntary associations, 13, 159, 263
- Volunteerism, 132, 139, 192, 195, 255, 267, 280, 299
- and the Internet, 127, 128, 138 (*see also* Internet)
- and open source software, 134, 284–286, 287, 298–299 (*see also* Open source)
- Warschauer, Mark, 258–259
- Waters, Donald, xii, 48, 100
- Westlaw, 134
- Wikipedia, 36, 131
- Wind Done Gone, The*, 214
- Work Projects Administration (WPA), 232–234
- Workshop in Political Theory and Policy Analysis, ix, 16, 31
- World Summit on the Information Society (WSIS), 49
- World Wide Web, 87, 128, 249, 314, 333, 338. *See also* Internet
- Yahoo.com, 99, 184, 345
- Zurkowski, Paul, 87

