

## Index



- Abraham, Ralph, 13–14
- abstractions
- disappearance of world and, 159
  - in economics, 245–50, 252
  - restoring context of, 230
- accidents
- and human destiny, 105–6
- accreditation. *See* credentials
- advertising, 242–43
- Agre, Phil, 155–56
- Alexander, Sybille, 100
- Alexandra, John, 142
- Amazon jungle, 19–33
- anonymity
- not the same as privacy, 234
- anthropocentrism, 48–49
- Aphrodite, 5
- aquarium, virtual, 114–15
- Ares, 5
- artifice, and technology. *See* *techne*
- art and automatic behavior 142–44
- artificial intelligence. *See also*
- computers; robots
  - conversation with, 165–69, 197–98
  - learning and, 188–90
  - loss of consciousness and, 178–79
- arts and crafts, and computers, 134
- Athena, 3, 6
- atomic energy, 37
- Auca Indians, 19–33
- attitude to environment, 30–33
  - missionaries and, 19, 30–32
- automatic behavior and art, 142–44
- automation
- countered by our highest capacities, 229–31
  - on principle, 226–29
- automobile, 211–14
- baby walkers, 139–42
- Bamford, Christopher, 68
- Barfield, Owen, 49, 196
- Beck, Adam, 79–90
- Beck, John, 80, 84, 93
- Beck, Martha, 79–90, 92, 93, 97
- Berry, Wendell, 50
- biometric encryption, 239
- blindness, 58–78. *See also* disability
- gift for hearing and, 59–60
  - memory and, 58–59
  - seeing with, 63–67
  - technology and (*see under* disability)
- blowgun, 19–21, 33
- Borgmann, Albert, 12, 152–53
- Breazeal, Cynthia, 183, 188–89
- Brooks, Rodney, 171–74, 176–77, 180–81, 183–86, 188
- Brown, Tom Jr., 115–16
- Buchenwald, 60, 72–78
- business. *See also* corporation;
- capitalism
  - influencing education, 151–52
  - profits vs. goals of, 241
  - spreadsheets and, 192–93, 227
- Camphill villages, 99–107
- capitalism
- efficiency of (*see* efficiency)

- capitalism (*continued*)  
 frictionless, 258, 260  
 greed and, 241–45  
 importance of choice under, 244–45, 249–50  
 possibility of change and, 250–52
- car, 211–14
- cell phones, 207–9
- Cherokees, 118
- chickadees, 35–37, 51–53, 119–21
- children. *See also* education  
 blessed and devilish, 11  
 need for protection of, 145–48
- Cobb, John Jr., 246
- Cog (robot), 189
- color  
 response of organism to, 66–67
- computer-mediated communication, 117
- computers. *See also* artificial intelligence; information; robots; technology  
 advice for classroom use of, 125–26  
 as authority for children, 135  
 can't add two plus two, 226–27  
 character of work and, 29  
 classroom alternatives to, 126–30  
 class size and, 134  
 displacing arts and crafts, 134  
 early development and, 141–42  
 economic abstraction and, 246  
 as educational gimmick, 136  
 education and, 119, 121, 123–37  
 emotions and, 168, 184–86, 191  
 fears of parents and, 136  
 for math instruction, 123  
 for reading instruction, 123–24  
 glitches can be valuable, 197, 204, 257–58  
 higher education and, 149–62  
 human context of, 195–98  
 literacy and, 135  
 obesity and, 134  
 play and, 134  
 sabotage of, 195, 261 (*see also* resisting technology)  
 stimulation and, 134  
 teacher training and, 134  
 ubiquitous (*see* ubiquitous computing)
- concentration camp, 72–78
- lies by prisoners in, 73
- consciousness  
 birth of, 6–7  
 disappearance of, 176–79  
 importance of secrets for, 6–7  
 opposed to outer devices, 14–17
- consumption  
 as an economic good, 242
- conversation  
 characteristics of, 40–42  
 with computer, 165–69, 197–98  
 computer-mediated communication and, 117  
 with life circumstances, 88  
 mechanization of in society, 167–68  
 with nature, 38–53, 117–118  
 vs. problem-solving, 225–26
- Cornacchia, Joe, 235, 238
- corporation. *See also* business  
 influencing education, 151–52  
 mechanization of, 28–30  
 possibility of change in, 251  
 stakeholders of, 248  
 values of, 247–52
- cows, de-horning, 44
- craft, and technology. *See* *techné*
- credentials  
 educational 153–59
- Crichton, Michael, 114
- Crick, Francis, 176–77
- cryptography, 239
- Cullen, Joe, 154
- cultural relativism, 30
- cultures  
 must grow up, 30–33
- curare, 26–27
- currency trading, 254–55
- cyborg, 179
- Cyclopes, 3–4, 7–8, 17  
 eye of, 8
- Daly, Herman, 246
- Dasmann, Raymond, 47
- data. *See also* information  
 incompatible with privacy, 233–34, 238–40
- Davis, Wade, 19–33
- Dawkins, Richard, 177
- deafness, 68. *See also* disability
- death  
 organism's resistance to, 175
- destiny, human. *See* human destiny

- developmental needs. *See under*  
 individual
- devices  
 opposed to consciousness, 14–17
- Dimock, George, 7–11
- disability  
 “abnormality” of, 96–97  
 blindness and technology, 58, 67–  
 68, 70–72  
 Camphill villages and, 99–107  
 communication and, 101–2  
 Down Syndrome, 79–97  
 genetic engineering and, 89–97  
 gifts to community of, 103  
 human destiny and, 105–7 (*see also*  
 human destiny)  
 parents’ role in, 61–62, 64  
 prostheses and, 71  
 technology and, 57
- disease  
 balance and, 27–28  
 symptom-masking and, 223–24
- distance-conquering technologies  
 destroy places, 262–65  
 increase distance between us, 213–  
 14
- distance education 129
- distancing role of technology. *See*  
*under* technology
- DNA, 37  
 as effect, not cause, 175  
 language of, 161
- Down Syndrome, 79–97, 99. *See also*  
 disability  
 “abnormality” of, 96–97  
 dolphins and, 87  
 genetic screening and, 84  
 social skills and, 84
- D-tubocurarine, 27. *See also* curare
- economics, 241–55. *See also* capitalism;  
 business; corporation  
 externalities of, 247
- ecosystems  
 unpredictable complexity of, 37
- education  
 child’s need for protection and,  
 145–48  
 computers and (*see under*  
 computers)  
 corporate role in, 151–52  
 cost of, 152–53  
 credentials and, 153–59  
 diversity and, 155–56  
 higher, 149–62  
 individual recognition and, 157–59  
 information and (*see* information)  
 Internet pornography and, 145–48,  
 262–63  
 role of nature in, 115–21, 127–29  
 safe places and, 262–63  
 educational assessment, 104–5, 157–  
 59  
 Edwards, Rose, 103  
 efficiency  
 of Internet, 258–60  
 vs. intrinsic appeal of object, 21  
 responsibility and, 266
- ELIZA, 180
- email, 29, 230–31
- emotions  
 investing computers with, 168,  
 184–86, 191
- entropic heat decay, 175
- environment. *See also* nature  
 automobile and, 213  
 conversational engagement with,  
 38–53  
 domestic vs. wild, 50–53  
 human participation in, 47–53  
 ignorance and, 39–46  
 management vs. preservation, 36–  
 53  
 native peoples and, 30–33  
 reading qualitatively, 22–30, 33  
 responsibility for, 250–51  
 stability of, 39
- ethnobotany, 23–28
- Everglades, 113
- evil  
 good and, 7, 201–2  
 marketplace and, 241–45  
 externalities, economic 247
- Fagan, Perry, 247–52
- farming and gardening, 51
- Feynman, Richard, 174
- Fletcher, Joseph, 92
- Fogg, B. J., 191
- form  
 maintenance of in organism, 175–  
 76

- French Resistance, 58–60, 69–70
- Galilei, Galileo, 47
- gambling  
   Internet and, 265–66  
   investment as, 254–55
- Gandhi, Mohandas, 41, 106
- Gates, Bill, 220
- genetic code  
   information and, 161–62
- genetic engineering, 45  
   human enhancement and, 89–97  
   human hybrids and, 91–92  
   love and, 96–97
- Genghis (robot), 171, 185
- German invasion of France, 69
- Gestapo, 60
- Gilder, George, 244
- glitches, value of, 257
- Goldstein, Kurt, 66–67
- good  
   evil and, 7, 201–2  
   marketplace and, 241–45
- government  
   checks and balances, 201
- Great Technological Deceit, 203–16
- greed, supposed virtues of, 241–45
- gross domestic product, 252
- Grove, Chris, 265
- Güggenbuhl–Craig, Adolf, 260
- HAL, 183, 185–86
- hallucinogens, 25–27
- hand-eye coordination, 142–43
- Harvard University, 80, 84–86
- Hawley, Michael, 218–19
- Hayes, Richard 90
- health  
   balance and, 27–28  
   symptom–masking and, 223–24
- Healy, Jane, 123–31
- Heisenberg, Werner, 174
- Hephaestus, 5, 14
- Hillis, Danny, 13–14
- Holdrege, Craig, 42, 44, 47
- Homer, 4–5, 7, 8, 12, 15–16
- horses, listening to, 117–19
- Hughes, James, 92
- human destiny, 70, 79, 88–89, 95–97, 105–7, 161, 262
- hypertext, 224
- ignorance  
   ecological conversation and, 39–46
- illness  
   redeeming value of, 69–70
- idealism  
   rooted in human being, 267
- individual  
   birth of self-conscious, 6–7  
   development of, 11, 13, 104, 139–42  
   education and, 157–59  
   standardized testing and, 104–5
- information  
   arms race 206–7  
   causing disappearance of  
     educational content, 159–62  
   computers as source of, 119  
   genetic code and, 161–62  
   no understanding of, 159–60  
   education and, 133  
   higher education and, 149–62  
   managing, 206–7  
   temptation of, 8–9
- information highway, 8, 13
- Internet, 112  
   as frictionless medium, 258–65  
   dysfunction of, 257–58  
   education and (*see under* computers; education)  
   gambling and, 265–66  
   idealism and, 267  
   lack of places on, 147, 224, 262–67  
   multicultural education and, 135  
   personalizing transactions on, 260–62  
   sex and, 145–48, 234
- investment, financial 253–55
- invisibility of technology, 191–94
- Invisible Hand, 242–43, 249
- Ithaca, 4
- Jacobs, Jane, 234–39
- Jensen, Michael, 247–52
- Jung, Carl, 53, 177–79
- just-in-time learning, 150
- Kahn, Alfred, 246–47
- Kalypso, 12
- kanbrain, 150
- Kay, Lily 161
- Kismet (robot), 183–90, 261
- kitchen, automation of, 218–19
- knowledge  
   in body before intellect, 141–42  
   temptation of, 8–9
- König, Karl, 102–4

- Kurzweil, Ray, 57, 70–71, 167
- labor-saving devices, 32
- language  
as dead weight, 196
- learning  
just-in-time, 150  
robots and, 188–90
- Leontief, Wassily, 245–46
- Leopold, Aldo, 37, 39
- Lévi-Strauss, Claude, 30
- Lewis, C. S., 112
- Lewis, Michael, 246
- Lewontin, Richard, 176
- lie detectors, 209–11
- Lippman, Andrew 217–18
- literacy  
sources of, 135
- Loebner Turing Test, 165
- Lombardo, Stanley, 6
- love, role of in learning, 118
- Luke, Helen, 11
- Lusseyran, Jacques, 57–78, 225
- machinations, and technology. *See*  
*techné*
- marketplace. *See* capitalism
- McKibben, Bill, 114
- mechane*, 6
- mechanism  
as economic rationality, 247  
humans, robots and, 171–76  
as Invisible Hand, 242–43, 249
- Media Lab (MIT), 217–20, 226
- Mencken, H. L., 154
- Metaman, 91, 96
- missionaries  
and the Waorani, 19, 30–32
- Mitchell, John Hanson, 113
- models  
disappearing from physics, 172
- money, spiritual value of, 253–54
- Monod, Jacques, 177
- moon 111–13, 117
- morals, legislation of, 249
- Moss, Lenny, 175
- Mozart, 106
- multicultural education  
computers and, 135
- Murray, A. T., 3 fn.
- mystery. *See* ignorance
- Nash, Roderick Frazier, 47
- Nass, Clifford, 191
- nature. *See also* environment  
artistic character of, 144  
conversation with (*see under*  
conversation  
education and, 115–16, 119–21,  
127–30  
human detachment from, 48–50,  
111–121  
loss of, 10, 12, 159  
sources of love for, 134–35  
speech of, 46–47  
video games and, 144
- Nobody, Odysseus as, 3–4, 7, 17
- obesity and computers, 134
- Odysseus, 3–17  
man of many devices, 3–10, 15  
Cyclops and, 3–4  
homecoming of, 7–8  
as Nobody, 3–4, 7, 17  
Sirens and, 8–9  
trickery of, 3–10  
Trojan horse and, 6, 8
- organism  
integrity of, 44–45, 47, 66–67  
nature of, 46–47  
order and form in, 174–76
- Padilla, Elena, 235
- paradise, loss of, 10, 12
- paranormal experiences, 80–83, 88–89
- Patton, George, 60
- Pence, Gregory, 91
- Perelman, Lewis, 150
- personalizing Internet transactions,  
260–62
- pianist and video game player, 143–44
- Pietzner, Carlo, 106
- physics  
lack of models in, 172
- places  
distance-collapsing technologies  
and, 262–65  
friction required for, 263–66  
lacking on Internet, 147, 224, 262–  
67
- play and computers, 134
- Polyphemus. *See* Cyclopes
- pornography  
Internet, 145–48, 262–63
- Poseidon, 4

- Postman, Neil, 12  
 precaution  
   principle of, 37–38  
   responsibility and, 42–45  
 privacy, 6–7, 233–40  
 protein folding, 176  
 pseudonyms, digital, 239  
 psychic inflation, 179  
 psychoactive compounds, 25–27  
 qualitative environment  
   reading, 22–30, 33  
 quantum weirdness, 174  
 Rarey, Solomon, 118  
 reductionism, 171–74, 177–79, 261  
 reproductive technologies, 90–97  
 responsibility  
   of humans, for creation, 50–51  
   of humans, for mechanisms, 197–98  
   precaution and, 42–45  
 resisting technology, 14, 33, 195–97,  
   225–26  
 Roberts, Monty, 117–19  
 robots. *See also* artificial intelligence;  
   computers  
   Cog, 189  
   Genghis, 171, 185  
   HAL and Kismet, 183–90  
   investing with emotions, 184–6  
   as learners, 188–90  
   as living things, 185–86  
   as mechanisms like us, 171–76  
 Romanyshyn, Robert, 111  
 Schultes, Richard Evans, 23–28  
 Schultze, Charles, 242, 247  
 Schneiderman, Ben, 192  
 Screpanti, Ernesto, 246  
 secrets  
   self-consciousness and, 6–7  
 Segal, Tamir, 210  
 self. *See also* consciousness  
   abandonment of, 21  
   birth of, 6–7  
   as power to originate, 16–17  
   strengthening, 225–26  
 selfishness. (*See* greed)  
 Serkin, Peter, 100  
 sex. (*See* pornography)  
 shotgun, 21–22, 32–33  
 Silicon Valley, 15, 103, 107  
 Silver, Lee, 90  
 simulation. *See* virtuality  
 Singularity, the Great, 13  
 Sirens, 8–9  
 skill, and technology, 32–33. *See also*  
   *techne*  
 Snell, Bruno, 49  
 Snyder, Gary, 50  
 Sobel, David, 127–129  
 society  
   as context for privacy, 233–40  
   as mechanism, 187  
 software  
   as dead hand of the past, 196  
 solutions  
   technology and, 221–26  
 spam  
   on Internet, 234, 257–58, 260  
 spreadsheets, 192–93, 227  
 speech recognition  
   lie detectors and, 209–11  
   opposite potentials of, 205–6  
 speech vs. speaker, 186–90, 211  
 Stalking Wolf, 116  
 stakeholders of corporation, 248  
 standardization, 196  
 standardized testing, 153–59  
   disabilities and, 104–5  
 stimulation and computers, 134  
 Stock, Gregory, 91  
 synchronicity, 53  
 taxonomic eye, 23–24  
*techne*, 5–7, 9  
 technology. *See also* genetic  
   engineering; information;  
   Internet; computers  
   as abandonment of self, 21  
   addresses well-behaved problems,  
     221  
   artifact vs. artificer, 186–90, 194–  
     98  
   balance of risks and benefits, 204  
   balance required by, 9, 27–28, 33,  
     119, 121, 133–34  
   birth of individual and, 6–7  
   changing character of work and,  
     32–33  
   conceals human actor, 186–88  
   dangers when it works well, 203–  
     16  
   disability and (*see* disability)

- distance-conquering, 213–14, 262–65
- distances us from world, 111–12
- distractions of, 12
- doesn't free us for higher tasks, 226–29
- double-edged improvements in, 205
- education and (*see* computers, education and)
- efficiency of (*see* efficiency)
- glitches of are valuable, 257
- human intentions built into, 192–93
- inner vs. outer, 14–17
- in kitchens, 218–19
- in nursing homes, 203
- intrinsic value of, 221
- invisibility of 191–94
- labor-saving devices and, 32
- loss of nature and, 10, 12
- necessity to resist, 14, 33, 195–97, 225–26
- privacy and, 233–40
- projecting good and evil upon, 201–2
- qualitative consciousness and, 28–30
- reversal of its role for humans, 11–17
- risks and benefits of, 215–16
- safety and, 207–9, 224
- salesmen for, 130–31
- secrets and, 6–7
- self-consciousness and, 6–7
- as a solution, 221–26
- time-saving, 223
- transformation of culture and, 30–33
- virtuality and (*see* virtuality)
- telephone answering systems, 204–6
- telescope, 47, 111–14, 119
- television, 12, 112, 114, 121, 133–34, 137, 145, 218, 224, 266
- Thornburgh, Dick 145
- time-saving technology, 223
- Tolkien, J. R. R., 50
- trickery
  - of Odysseus, 3–10
  - technology and (*see* *techné*)
- Trojan Horse, 6, 8
- trust
  - lie-detectors and, 209–11
  - Turing Test, 165
- Turner, Jack, 36–37, 39, 40, 50
- ubiquitous computing, 220–21
- values, in economics, 241–55
- van den Berg, J. H., 113
- video games, 142–44
- video screens, 133–34
- virtuality, 113–16
  - as a responsibility, 115
- Waldorf schools, 100, 104
- Waoarani, 19–33
  - attitude to environment, 30–33
  - missionaries and, 19, 30–32
- Watson, James, 91, 95–96
- Watts, Andre, 100
- Weinberg, Steven, 173–74
- Weizenbaum, Joseph, 180–81
- wilderness. *See also* environment
  - farming and, 51
  - human responsibility for, 47–53
  - reversal of our relation to, 12
- Wilson, E. O., 177
- work
  - technological transformation of, 32–33, 226–29
- yagé*, 25–26
- yoca*, 27
- Yost, Jim, 30–31
- Zamagni, Stefano, 246
- Zingman, Vadim, 265