Access controls, 43, 73–79, 211
Accounting, forensic, 104–107, 129–130
Actuators, 22–23
Air travel, 77, 85
Anonymous identities, revealing, 151–152
Application data, 32–35
Apps, 49
Attorneys, 107–111, 118
Audio files, 51–54

Backup systems, 145–147, 173
BIOS (basic input output system), 34
Bots and botnets, 61–62, 184
Boundary scans, 50
Broadband routers, 31

Cars, transporting evidence by, 77, 85 Case management, 128-129 Cellular phones, 50-51, 92 Central processing unit (CPU), 29 Certification, 98, 114 Chain of custody, 76-79, 83-85 Chat, online, 40 China, 180, 197 Clients, 99-100 Cloud computing, 16–164, 47, 63–66, 211 - 212Cognitive computing, 212 Collection phase, 5, 191, 192-194, 197-198 Colocation facilities (colos), 57 Computer abuse, 12 Computer-assisted review, 111–112, 142, 195, 203 Computer crime analysis and reconstruction,

147-149

100–101, 165 Computer forensic laboratories establishment, 69-73 evidence and access controls, 73-79 staffing, 85-26 teamwork and workflow, 94-98 tools 86 94 workstations, 79-82 Computer forensics, defined, 4–6 Computer monitoring software, 62–63 Computers, types of, 17 Concept searching (machine-assisted review), 111-112, 142, 195, 203 Connectors, 22 Contracts, 154-155 Cyber investigators, 102-103 Cyberprofiling, 154

Computer forensic examiners, 85-86, 98,

Data acquisition forms, 78–79 Data- and traffic-gathering applications, 60-63 Database management system (DBMS), 38 Databases, 37-41, 178 Data breaches, 169, 170-172, 185-186 Data centers, 56-57 Data classification, 140-143 Data collection, 5, 191, 192-194, 197-198 Data concealment, 33 Data hosting and review, 195 Data identification, 189-190, 191 Data maps, 190 Data preservation, 5-6 Data privacy experts, 113-114 Data processing, analysis, and analytics, 6, 191, 194-195 Data reviewers, 115-116

Data storage, 33–34 DDoS (distributed denial-of-service)	FTK (Forensic Tool Kit), 87–88
attacks, 61	Global citizenship, 212–213
Defense attorneys, 110–111	Global information networks. See Networks
Deleted data, 143–145	
Demilitarized zone (DMZ), 60	
Detail, attention to, 124–126 Digital evidence	Hacking, 123, 124, 147–148, 151–152, 171, 178–187
characteristics of, 9–11 control over, 73–79, 83–85	Hard drives, 18, 19–24, 27, 29–30, 83–84, 124, 125, 126, 141, 162
seizure and examination, 140	Hardware, 27
storage and transportation, 83–85	Heads, 21, 22
Document usage data, 33	High-Tech Crime Investigators Association,
Domain name, 44–45	120
Drills, 170 Dynamic data capture, 63–65	Honeypots and honeynets, 63, 176–177
Dynamic data capture, 03–03	Human resources, 134–136
E-ph 1/2 150 1/0	
Early case assessment, 142, 159–160 Electronic discovery (e-discovery), 189–207	IaaS (infrastructure as a service), 65–66
courtroom presentation, 207	IBM, 22
data identification, 189–190	IDE hard drives, 84, 125, 162 Identity the ft, 179, 180, 182–183
emerging issues, 202–205	Imaging hardware, 90–93
experts, 111–113	Inc de n response, 167–170
history of, 3	Information management, 191
international issues, 196–199, 205–206	Intellectual property theft, 133–134, 180,
model for, 189, 190–192	183–184
stages, 192–196	Interactive communications data, 33
tools, 199–202	Internal investigations, 134–136, 173–175
Electronic discovery reference model (FDRM),	International issues
189–192	cybercrime, 180–181
E-mail, 33, 41–43	data collection, 122–123
Employees, investigations of 134–136, 173–175	e-discovery, 196–199, 205–206
EnCase, 86–87	global citizenship, 212–214
Encryption, 153–154, 198	investigations, 161–162 networking, 175–176
Ethical issues, 12, 155–156	security, 67–68
Evidence, forms of, 9-10. See also Digital	Internet bots, 61
evidence	Internet data, 39–41
Exhibits, 207	Internet servers, 40
Experts, 111–114	Internet Service Provider (ISP) records,
Extra-national investigative networks, 214	164–165
	Interviews and interviewers, 118,
	133, 153
Field, handling evidence in, 77	Investigations
File backup systems, 145–147	case management, 128–129
File creation time stamps, 45	challenges, 157–166
File sharing, 33	of employees, 134–136
Findings, 11–12, 124–125, 136–137, 165–166 Firewalls, 59–60	findings, 11–12, 124–125, 136–137, 165–166
Forensic accountants, 104–107, 129–130	interviews, 118, 133, 153
Fraud, 129–130, 172	mind-set of investigator, 127–128
, 12/ 100, 1/2	

objectives, 11, 157–166 process, 11–12 techniques, 130–132 types of, 11	Neutrals, 113, 204 Nonvolatile data, 33–34 NoSQL (not only structured query language), 47–48
Investigators, 2–4, 102–104, 127–128, 139–140 iPad, 48–50	Nuix, 199–201 Numbering scheme, for evidence, 75
IP (Internet Protocol) address, 31, 42, 43–45, 151, 164	Operating system (OS), 49
Iranian nuclear facilities, STUXNET	Optical drives, 25–27
attack, 181	Organized crime, 178–179
Judges, 121	PaaS (platform as a service), 65
Juries, 121–122	Pace, of investigation, 160–161
	Packet analysis, 41 Packet filters, 59
Keyloggers, 63–64	Peer-to-peer networks, 58
7 60 7	Phishing, 185
	Pickup head (PUH), 25
Labs. See Computer forensic laboratories	Plaintiff's atterney, 107–109
LAN (local area network), 31, 58	Platters, 21, 22
Law-enforcement officers, 119–120	Police officers, 119–120
Legacy devices, 101 LEXIS-NEXIS, 201	Policy-based routers, 32 Policy-based routers, 32 Policy-based routers, 32
Load files, 195, 201	Predictive coding, 111–112, 142, 195, 203
Logicube, 83, 90–93, 200	Presentation, 6, 191–192, 196
4.)	Preservation phase, 5–6
	Privacy, 14–15, 67–68, 113–114, 209–211
Machine-assisted review, 111–112, 142, 195,	Project managers, 117, 118
203 Manipung indoor 120, 121	Project managers, 117–118 Prosecutors, 120–121
Magistrate judges, 120–121 Magnetic hard drives, 19–24	Proxy servers, 60
Malware, 61–63, 103, 147–148, 181, 184–185	The public, 122–123
Maps and mapping, 52-59, 149-151, 190	
Meaning-based computing (machine-assisted	
review), 111–112, 142, 195, 203 Metadata, 35–37	RAID (redundant array of independent disks), 23–24
Mobile devices, 48–51	RAM (random access memory), 5, 29,
Motors, hard drive, 23	34, 148
	Real-time challenges, 175, 214–215
	Recorder identification code (RID), 26
Nanotechnology, 212	Records and recordkeeping, 128–129, 130, 140–143
NetAnalyis, 93–94 Network attached storage (NAS), 24, 72, 193	Relational database management system
Network engineers, 102	(RDBMS), 47
Networks	Relativity, 201–202
data on, 54–58	Reporting, investigation results, 136–137,
fundamentals of, 58–59	165–166 Researchers, 118–119
history, 18–19	Results, of investigations, 11–12, 124–125,
routers, 30–32 types of, 17	136–137, 165–166
types 01, 1/	

Routers, 30–32 RPM, 29–30	Technological changes, 1–2 Technology-assisted review, 111–112, 142, 195, 203
SaaS (software as a service), 65 Safe zone, 69, 71 SATA hard drives, 84, 126 Search engines, 140–142 Security applications, 33 computer forensic labs, 72–75 e-mail restrictions, 43 firewalls, 59–60 international issues, 67–68 preparation for attacks, 158–159 social media, 46 wireless routers, 31 Sedona Conference, 204, 205	Testimony, 137 Theft, 133–134, 172, 179, 180, 182–184 Third parties, 154–155 Time management, 96–98, 156, 160–161 Time stamps, 45 "Toaster" box, 70 Tools computer monitoring software, 62–63 early case assessment, 159–160 e-discovery, 199–202 forensic software, 81–82, 86–94 investigations, 130–132 Tracks, 21–22 Trade secret theft, 133–134 Transmission control propocol (TCP), 42, 43,
Sedona Conference, 204–205 Servers, 23, 27–30, 40, 60, 168 Service vendors, 175–176 SilentRunner, 64 Smartphones, 50–51, 92	58 Transportation, of digital evidence, 83–85 Trojans, 185 Trust, 9, 13–14, 211
SMTP (simple mail transfer protocol), 42–43 Sniffers, 62, 63 Social engineering, 152–153 Social media, 45–48, 162–164 Software. <i>See</i> Tools	Truth, relevancy of, 8–9 Unstructured data, 178
SoloMaster, 90–93 Source identification code (SID), 26 Special masters, 203–204 Spindles, 22	Victims, 99–100 Video files, 51–54 Volatile data, 33–34
Spyware, 62 SQL (structured query language), 47 SQL injection attacks, 149, 171 Staffing, 85–86	WAN (wide area network), 31, 58 Web 2.0, 45, 46 Web bots, 61 Web browsers, 33, 93–94
Stateful filters, 59 State-sponsored cybercrime, 181–182 Storage application data, 33–34 databases, 39 digital evidence, 83–85	Web spiders or crawlers, 61 Web usage data, 33 Whistleblowers, 122 Wireless activity, 41 Wireless routers, 31 WLAN (wireless local area network), 58
global capacity, 56 social media, 46–47 Structured data, 178 Surveillance, 132–133 Systems failures, 172–173	Working copy, 75 Workstations, 79–82 Write blockers, 88–90
	X1 Discovery, 93, 163
Tablets, 48–50 Teamwork, 94–96, 161–162 Technicians, 85–86	Zero day forensics, 214–215