

# Index

*Note:* Page numbers followed by “F” and “b” indicate figures and boxes respectively.

## A

Academic sites, 18  
Addictomatic, 72  
Addons  
    buildwith, 48, 49f  
    chat notification, 47  
    Contactmonkey, 52  
    follow.net, 49  
    onetab, 50–51  
    Project Naptha, 51  
    Reveye, 51  
    Riffle, 49–50, 50f  
    salesloft, 51  
    for security, 211  
        HTTPS Everywhere, 212  
        NoScript, 212  
        WOT, 211, 211f  
    shodan, 48  
    Tineye, 51  
    wappalyzer, 48  
    whoworks.at, 50  
    YouTube, 47  
Adobe PhotoShop, 138–139  
Advanced search techniques, 25  
    Facebook, 25–26, 27f  
    LinkedIn, 27–30, 27f  
    site operator, 31  
    Twitter, 30, 31f  
Anonymity, 147  
Anonymous network, 164  
    I2P, 165–168, 166f  
    Onion Router, 164–165, 165f  
Antiviruses, 209  
Application-based proxy  
    JonDo, 153–156, 154f–155f  
    Ultrasurf, 152–153, 153f  
Application programming  
    interface (API), 246  
Autocomplete, 37–38

## B

Betweenness, SNA  
    bridges, 225  
    defined, 222  
    factors, 222, 222f  
    gatekeeper/boundary spanners, 225  
    isolate, 225–227, 225f–226f

Liaison, 225  
network reach, 223–224  
nodes, role, 223  
star/hub, 224

## Bing

features, 85  
operators  
    /, 85  
    “”, 85  
    (), 86  
    &, 86  
    +, 85–87  
    feed, 87, 87f  
    filetype, 86  
    ip, 86, 87f  
    site, 86

Bitcoin, 272–274, 273f  
BitLocker, 215, 215f  
Black Hat mashup, 253–254  
Boardreader, 73  
Bookmark, 52  
Browser, 52  
    architecture, 34f  
        browser engine, 35  
        data persistence, 35–36  
        error tolerance, 36  
        javascript interpreter, 35  
        networking, 35  
        rendering engines, 35  
        threads, 36  
        UI backend, 35  
        user interface, 35  
Chrome, 12  
Epic browser, 40  
features  
    autocomplete, 37–38  
    online and offline browsing, 36  
    private browsing, 36–37, 37f  
    proxy setup, 38  
Firefox, 12–13  
history of, 34  
operations, 33–34  
Buildwith, 48, 49f  
Business/company search, 59  
    Glassdoor, 59–60, 60f  
    LinkedIn, 59  
    Zoominfo, 60

**C**

Carrot2, 72–73, 73f  
 CaseFile, 194–196, 195f–196f  
 CheckUsernames, 61  
 Chromium, 39  
 Clearweb, 169–170  
 Contactmonkey, 52  
 Content sharing websites, 17–18  
 Corporate websites, 17  
 Creepy
 

- applying filter, 104, 104f
- geolocation, 102
- Plug-in Configuration button, 102, 102f
- results, 103, 103f–104f
- search users, 102, 103f

 Cryptography, 267
 

- asymmetric key, 268
- encoding, 268–269
- hashing, 268
- symmetric key, 267

 Custom browsers, 46
 

- categories, 45–46
- Epic, 40
- FireCAT, 43–44
- HconSTF, 40–41
- Mantra, 41–43, 42f
- Oryon C, 44, 44f
- TOR bundle, 45
- Whitehat Aviator, 44–45

 CyberGhost, 161–162, 162f

**D**

Darknet, 17
 

- I2P
  - create own site, 180–183, 180f–183f
  - download and install, 176
  - forum, 178, 179f
  - git, 177, 177f
  - home, 176, 177f
  - Id3nt, 179, 179f
  - paste, 178, 178f
- Tor
  - DuckDuckGo, 173, 173f
  - files created, 175, 175f
  - HiddenServicePort, 174–175
  - Hidden Wiki, 172, 172f
  - Silk Road, 174
  - Torchan, 174, 174f
  - Tor hidden service, 175f, 176
  - Tor Wiki, 172, 173f
  - XAMPP, 174

 Darkweb, 170

Data encryption, 215–216, 215f  
 Data Encryption Standard (DES), 267  
 Data leakage protection (DLP), 145–146
 

- Doc Scrubber, 146
- geotags, 146
- MAT, 145
- MetaShield Protector, 145
- MyDLP, 145
- OpenDLP, 146

 Data management/visualization
 

- and analysis tools
  - CaseFile, 194–196, 195f–196f
  - excel sheet, 190–191, 191f
  - flowcharts, 192–193, 193f
  - KeepNote, 197–198, 198f
  - Lumify, 198–199, 199f
  - MagicTree, 196–197, 197f
  - Maltego, 193–194, 194f
  - SQL databases, 191–192, 192f
  - Xmind, 199–201, 200f
- data, 188
- information, 188
- intelligence, 188–190

 DataMarket, 71  
 Data recovery/shredding, 269–270, 270f–271f  
 Deepweb. *See also* Darknet
 

- advantages, 171
- defined, 170
- disadvantages, 171

 DiggityDownloads, 143  
 Doc Scrubber, 146  
 Domain name system (DNS), 5–6, 8  
 DuckDuckGo, 62, 62f

**E**

E-mail, 5  
 Email-Rapportive, 256  
 EmailSherlock, 60, 61f  
 Epic browser, 40  
 Error tolerance, 36  
 Excel sheet, 190–191, 191f  
 Exif Search, 136–137, 136f–137f

**F**

Facebook, 22, 25–26, 27f  
 Fingerprinting Organizations with  
 Collected Archives (FOCA),  
 139–140, 140f  
 FireCAT, 42–44  
 Follow.net, 49  
 Freedom, 40–41  
 Freenet, 183–185, 183f–184f

**G**

- Gecko, 35
- Gephi
  - Data Laboratory tab, 219, 219f
  - installation, 218
  - Overview tab, 218–219, 219f
  - Preview tab, 220
- Glassdoor, 59–60, 60f
- Google
  - operators
    - , 81
    - ..., 81
    - “, 81
    - \*, 81
  - AND, 81
  - allintext, 80
  - allinurl, 79
  - AROUND, 80–81
  - cache, 82, 135f
  - calculator, 83
  - convertor, 83–84
  - define, 80
  - ext, 80
  - filetype, 80
  - info, 82
  - intext, 79–80
  - intitle, 80
  - inurl, 79
  - NOT, 81
  - OR, 81
  - related, 82
  - site, 78–84, 79f
  - time, 83
  - weather, 83
  - search categories, 78
- Google+, 24–25
- Google Chrome, 38–39
- Google Hacking Database, 83–84, 84f
- Google Translate, 149
- Government sites, 19

**H**

- Hachoir-metadata, 138–139
- Hackerfox, 40–41
- Hacking attempts, 208
- Hard disk drive (HDD), 269
- HavelBeenPwned, 214, 214f, 256
- Hello World program, 231, 231f
- HconSTF, 40–41
- Hideman, 163–164, 163f
- HTTPS Everywhere, 212
- HyperText Markup Language (HTML), 77

**I**

- Id3nt, 179, 179f
- ImageRaider, 70–71
- Integrated database (IDB), 41
- Intelligence
  - definition, 188–189
  - managing data, 189
  - structured data, 190
- Internet
  - definition, 2
  - history, 2
  - working, 2
- Internet Relay Chat (IRC), 271–272, 272f
- Invisible Internet Project (I2P),
  - 165–168, 166f
  - create own site, 180–183, 180f–183f
  - download and install, 176
  - forum, 178, 179f
  - git, 177, 177f
  - home, 176, 177f
  - Id3nt, 179, 179f
  - paste, 178, 178f
- IP address, 3–4
- iPhone, 137–138
- IRC. *See* Internet Relay Chat (IRC)
- ivMeta, 137–138, 138f
- Ixquick, 55, 55f

**J**

- Jeffrey’s Exif Viewer, 134–136, 135f
- JonDo, 153–156, 154f–155f
  - installation, 154
  - interface, 154, 154f
  - running, 155, 155f
  - test, 154, 155f
  - Windows users, 153
- JonDoFox, 153

**K**

- KeepNote, 197–198, 198f
- Keylogger, 206
- Knigme, 63, 63f
- KnowEm, 61

**L**

- LinkedIn, 23, 27–30, 27f, 258
- LittleSis, 57–58
- Lumify, 198–199, 199f

**M**

- MAC address, 5
- MagicTree, 196–197, 197f

- Maltego
    - Collaboration, 127–128, 128f
    - commercial version, 124
    - community version, 124
    - domain to E-mail, 129–130, 130f
    - domain to website IP, 128–129, 129f
    - entity, 124
    - Investigate, 126
    - machines, 125, 125f, 127
      - Company Stalker, 263, 263f
      - creating, 263–264, 264f
      - HIBP local transform, 264
      - MSL, 263
      - output, 265, 265f
    - Manage option, 126, 126f
    - Organize option, 126, 126f
    - person to website, 130–131, 131f
    - transform, 124
  - Maltego scripting language (MSL), 263
  - Maltego Transforms, 245–251, 248f–250f
  - Malwares
    - Keylogger, 206
    - ransomwares, 206
    - restricted sites, 205–206
    - Trojan, 206
    - virus, 206
  - Mamma search engines, 55–56
  - Mantra, 41–43, 42f
  - MarketVisual, 58, 58f
  - Media access control address, 5
  - Metadata
    - creation of, 133–134
    - extraction tools
      - Exif Search, 136–137, 136f–137f
      - FOCA, 139–140, 140f
      - hachoir-metadata, 138–139
      - ivMeta, 137–138, 138f
      - Jeffrey’s Exif Viewer, 134–136, 135f
      - Metagoofil, 140–142, 141f–142f
    - impact, 142–143
    - removal/DLP tools, 145
      - Doc Scrubber, 146
      - geotags, 146
      - MAT, 145
      - MetaShield Protector, 145
      - MyDLP, 145
      - OpenDLP, 146
      - Search Diggity, 143–145
  - Metadata anonymization toolkit (MAT), 145
  - Metagoofil, 140–142, 141f–142f
  - Meta search, 54
    - Ixquick, 55, 55f
    - Mamma, 55–56
      - Polymeta, 54, 54f
  - MetaShield Protector, 145
  - Microsoft Baseline Security Analyzer (MBSA), 212, 213f
  - Mozilla Firefox, 38–39
  - MyDLP, 145
- N**
- Namechk, 61
  - NerdyData, 66–67, 67f
  - News sites, 17
  - NoScript, 212
- O**
- Ohloh code, 67
  - Omgili, 73
  - Onetab, 50–51
  - .onion domain websites, 174
  - Onion Router, 164–165, 165f
  - Online anonymity
    - IP address, 147–148
    - proxy
      - Google Translate, 149, 150f
      - page opened inside, 150, 151f
      - types of, 151
      - whatismyipaddress, 149, 150f
  - VPN, 161
    - CyberGhost, 161–162, 162f
    - Hideman, 163–164, 163f
  - Online scams/frauds, 207–208, 207f
  - Online security
    - addons, 211
      - HTTPS Everywhere, 212
      - NoScript, 212
      - WOT, 211, 211f
    - antiviruses, 209
    - data encryption, 215–216, 215f
    - hacking attempts, 208
    - jailbroken iPhone, 204–205
    - malwares
      - Keylogger, 206
      - ransomwares, 206
      - restricted sites, 205–206
      - Trojan, 206
      - virus, 206
    - operating system update, 210–211
    - password policy, 213–214, 214f
    - password reset, 204–205
    - phishing, 207, 210
    - scams and frauds, 207–208, 207f, 210
    - shoulder surfing, 208–209

- social engineering, 209, 215
- spam message, 203–204
- tools, 212–213, 213f
- weak passwords, 208
- OpenDLP, 146
- Open source intelligence (OSINT)
  - academic sites, 18
  - content sharing websites, 17–18
  - corporate websites, 17
  - demo, 255
  - government sites, 19
  - news sites, 17
  - public sources, 16b
  - search engines, 16–17
  - tools and techniques, 101
    - Creepy, 102–104
    - Maltego, 124–131
    - Recon-ng, 113–121
    - Search Diggity, 110–113
    - Shodan, 107–110
    - TheHarvester, 105–107
    - Yahoo Pipes, 121–124
  - WEBINT, 16
  - weblogs/blogs, 18–19, 18f
- Operating system
  - basic hardware, 10
  - Linux, 11
  - Mac, 11
  - Windows, 10–11
- Oryon C, 44, 44f
- OSINT. *See* Open source intelligence (OSINT)

## P

- PeekYou, 57
- People search, 56
  - LittleSis, 57–58
  - MarketVisual, 58, 58f
  - PeekYou, 57
  - Pipl, 56–57, 57f
  - Spokeo, 56
  - TheyRule, 58–59
  - Yasni, 57
- Phishing, 207
- Pipl, 56–57, 57f
- Polymeta, 54, 54f
- Ports, 4
- Prime, 40–41
- Private browsing, 36–37, 37f
- Private IP address, 4
- Programming language
  - Java, 11–12
  - Python, 12

- Project Naptha, 51
- Protocol, 4–5
- Proxy
  - application-based proxy
    - JonDo, 153–156, 154f–155f
    - Ultrasurf, 152–153, 153f
  - Google Translate, 149, 150f
  - page opened inside, 150, 151f
  - set up, 160–161, 160f
    - in Chrome, 38
    - in Firefox, 38
  - web-based proxy, 156
    - anonymouse.org, 156–158, 156f–157f
    - Boomproxy.com, 159–160
    - FilterBypass, 159, 159f
    - Zend2, 158–159, 158f
    - whatismyipaddress, 149, 150f
- Public IP address, 4
- Python, 230
  - classes, 239–240
  - common mistakes, 243–245, 244f
  - data types, 232–235, 232f–234f
  - functions, 239
  - Hello World program, 231, 231f
  - identifiers, 232
  - indentation, 235–238
  - installation, 230
  - Maltego Transforms, 245–251, 248f–250f
  - modes, 230–231
  - modules, 238–239
  - programming vs. scripting, 229–230
  - resource, 251–252
  - user input, 242–243
  - working with files
    - os, 241
    - re, 241
    - sys, 241
    - urllib2, 242

## R

- Ransomwares, 206
- Raw browsers, 38–40
- Recon-ng, 118f
  - commands, 114b, 115
  - installation, 114
  - LinkedIn, 119
  - modules, 115, 115b, 116f–118f
  - penetration testing, 120
  - physical tracking, 119–120
  - PunkSpider in progress, 120, 121f
- Rendering engines, 35

- Reverse image search, 69
  - Google images, 70, 70f
  - ImageRaider, 70–71
  - TinEye, 70
- Reverse username/e-mail search, 60
  - CheckUsernames, 61
  - EmailSherlock, 60, 61f
  - Facebook, 61
  - KnowEm, 61
  - Namechk, 61
- Reveye, 51
- Riffle, 49–50, 50f
- Robots, 17
- Robtex, 68
- S**
- Salesloft, 51
- Search Diggity, 143–145
  - basic requirement, 110
  - interface, 110, 110f
  - NotInMyBackyard, 112, 112f
  - scan-Bing tab, 111, 112f
  - scan-Google tab, 111, 111f
  - Shodan scan, 112, 113f
- Search engine optimization (SEO), 78
- Search engines, 53. *See also specific search engines*
- Secunia PSI, 211
- Semantic search
  - DuckDuckGo, 62, 62f
  - Kngine, 63, 63f
- Server, 7
- Shodan, 48, 68–69, 69f
  - banners, 107
  - filters, 107, 108f
  - popular searches, 107, 108f
  - results for query “port:21 country:in,” 109, 109f
  - results for query “webcam,” 108–109, 109f
- Shoulder surfing, 208–209
- Silk Road, 174
- Small web format (SWF), 84
- SNA. *See* Social network analysis (SNA)
- Social media intelligence (SOCMINT), 20
- Social media search, 63
  - SocialMention, 63–64, 64f
  - Social Searcher, 64–65
- SocialMention, 63–64, 64f
- Social network analysis (SNA)
  - edges, 218
    - betweenness, 222–227, 222f
    - directed edges, 221
    - ranking, 222
  - type, 221
  - undirected edges, 221
  - weight, 221
- Gephi
  - Data Laboratory tab, 219, 219f
  - installation, 218
  - Overview tab, 218–219, 219f
  - Preview tab, 220
- network, 218
- nodes, 217, 220
- Social network websites, 21f
  - Facebook, 22
  - features, 21b
  - Google+, 24–25
  - LinkedIn, 23
  - Twitter, 24
- Social Searcher, 64–65
- SOCMINT. *See* Social media intelligence (SOCMINT)
- Source code search, 66–67
  - NerdyData, 66–67, 67f
  - Ohloh code, 67
- Spiders, 17
- Spokeo, 56
- SQL databases, 191–192, 192f
- Storage devices, 269
- Surface web, 17
- T**
- Tape drives, 269
- TheHarvester
  - in action, 105, 105f
  - HTML results, 105, 106f
  - sources, 106–107
- TheyRule, 58–59
- Tineye, 51, 70
- Top level domains (TLDs), 5–6, 6b
- Topsy, 65, 65f
- Tor, 164–165, 165f
  - DuckDuckGo, 173, 173f
  - files created, 175, 175f
  - HiddenServicePort, 174–175
  - Hidden Wiki, 172, 172f
  - Silk Road, 174
  - Torchan, 174, 174f
  - Tor hidden service, 175f, 176
  - Tor Wiki, 172, 173f
  - XAMPP, 174
- TOR bundle, 45
- Torchan, 174, 174f
- Trendsmap, 66
- Trojan, 206

Truecaller, 74–75  
 Tweetbeep, 66  
 Twitter, 24, 30, 31f  
   Topsy, 65, 65f  
   Trendsmap, 66  
   Tweetbeep, 66  
   Twiangulate, 66

## U

Ultrasurf, 152–153, 153f  
 Uniform resource locator (URL), 6–8

## V

Virtualization, classifications, 7–8  
 Virtual private network (VPN), 161  
   CyberGhost, 161–162, 162f  
   Hideman, 163–164, 163f  
 Virtual world, 19  
 Virus, 206  
 Vital Information Resources Under Seize, 206

## W

Wappalyzer, 48  
 WayBack Machine, 69  
 W3dt, 68  
 Weak passwords, 208  
 Web 2.0, 19–20  
 Web 3.0, 32  
 Web-based proxy, 156  
   anonymouse.org, 156–158, 156f–157f  
   Boomproxy.com, 159–160  
   FilterBypass, 159, 159f  
   Zend2, 158–159, 158f  
 Web browser, 7  
 WEBINT, 16  
 WebKit, 35  
 Weblogs/blogs, 18–19, 18f  
 Web of trust (WOT), 211, 211f  
 Web search engine, 7  
 Whitehat Aviator, 44–45  
 Whois, 68  
 Whoworks.at, 50  
 Wise Data Recovery, 270, 270f  
 WolframAlpha, 71–72, 72f  
 World Wide Web (WWW)  
   vs. internet, 3  
   media types, 3

## X

Xmind, 199–201, 200f

## Y

Yahoo  
   contents, 88  
   operators  
   -, 88  
   +, 88–90  
   define, 89  
   intitle, 89–90, 90f  
   link, 88–89, 89f  
   OR, 88  
   site, 88  
 Yahoo Pipes, 121–124, 123f  
 Yandex, 90  
   defined, 90  
   operators, 91  
   /, 94  
   !, 92–93  
   !!, 93  
   "", 93–94  
   (), 93, 93f  
   \*, 94  
   &, 91  
   &&, 91  
   +, 90–99  
   ~, 91  
   <<, 94  
   Cat, 98–99  
   date, 96–97  
   domain, 97  
   host, 96  
   inurl, 95  
   lang, 97–98  
   mime:filetype, 95–96, 95f  
   /number, 91–92  
   rhost, 96  
   site, 96  
   title, 94–95  
   url, 95  
 Yasni, 57

## Z

Zend2, 158–159, 158f  
 Zoominfo, 60