

Index

A

Accessible software, 410
Actor, 3–6, 9, 10, 12–16, 18, 19, 117, 155,
165, 169, 170, 227, 228, 296, 384, 520,
523, 528, 529, 542, 575, 585–587, 595,
596, 612–615, 618, 619, 621, 622,
624–631, 633, 643, 644, 646, 647
Agglomerative hierarchical clustering,
125–126
Authority ranking, 45–51, 53, 55, 56
Average path length, 588, 599

B

Betweenness centrality, 14, 139, 140, 523,
531, 553–554, 588, 589, 639, 643
Blind people, 411
Blog, 4, 59, 101, 130, 205, 241, 281, 303, 350,
379, 412, 442, 474, 501, 576, 585, 611,
637, 651

C

Cellular phone service, 24, 25, 38
Centrality, 12, 45, 128, 156, 169, 186, 273,
332, 429, 452, 523, 551, 579, 588, 615,
639
Clique, 12, 15, 17, 129, 169, 270, 274, 335,
337, 454, 455, 621, 628, 633, 639, 645
Closed-caption news,
Closeness centrality, 14, 15, 139, 531, 553,
588, 589, 639, 643
Cluster analysis, 121, 122
Clustering, 117, 154, 201, 229, 271, 282, 304,
331, 388, 429, 589, 613
Clustering coefficient, 117, 118, 154–156, 209,
336, 589, 599, 600
Collaborative filtering, 236, 269, 317–329,
367, 471, 472

Commercial, 19, 95–112, 119, 120, 213, 246,
265, 295, 296, 318, 356, 358, 423, 440,
498–500, 520, 571, 707
Community discovery, 380–384, 391, 398,
400, 406
Community dynamics, 390, 405
Community mining, 171, 331–338, 340, 342
Complete/whole network, 5, 14–16, 208, 272,
369, 480, 538, 542, 564, 616, 617, 644
Component size, 206, 588, 590, 669
Content-centric visualization, 607, 608
Context-awareness, 429–431

D

Deaf people, 411
Degree centrality, 14, 138, 139, 523, 538,
551–552, 588–589, 639, 644
Density, 12, 13, 36, 38, 87, 88, 117, 152, 156,
159, 333, 439, 458, 487, 588, 589,
645–647
Diffusion, 17, 59, 186, 269, 643, 691
Digital library, 245
Directed graph, 6, 7, 38, 81, 127, 133, 170,
172, 174, 175, 385, 449, 454, 457,
462–463, 482, 588, 619
Disability, 409
Distance, 13–14, 71, 72, 75, 117, 123, 127,
130, 132, 150, 154, 162, 213, 229, 232,
252, 270, 308, 310, 317, 320, 321, 362,
374, 382, 387, 388, 390, 405, 435–437,
450, 455, 456, 523, 525–527, 531, 553,
554, 586, 588, 628, 639, 657, 658
Dynamic networks, 343–344, 381, 391, 396,
405, 646

E

Efficiency, 14, 50, 67, 201, 202, 209, 245, 334,
361, 371, 411, 526, 528, 640, 641, 701

Ego network, 5–7, 13, 15–17, 153, 646
 Elderly people, 410, 411
 Entertainment, 91, 96, 110, 281, 300, 409,
 423, 427, 430, 637, 642, 653, 676
 Everett Rogers, 692, 695

F

FACEBOOK, 45, 55, 59, 63–65, 80, 81, 102,
 107, 130, 251, 253, 255, 259, 260, 263,
 281, 349, 350, 357, 362, 379–381, 406,
 409, 411–415, 418, 420–423, 438, 441,
 447, 471, 473, 475, 476, 498, 499, 571,
 572, 575, 585, 604–606, 611, 651
 Face name association,
 FacetNet, 382, 383, 391, 393, 395, 396, 405
 Factorization, contact recommendations, 46
 Film, 16, 95, 98–99, 103, 158, 295, 298
 Focus context, 45
 Force-directed, 590, 591, 605, 624
 FP-tree, 602, 603

G

Graph mining, 209, 381
 Graph theory, 3, 13, 19, 116, 117, 171, 332,
 335, 448, 450, 523, 587–588, 639
 Guideline, 410, 411, 415–417, 419–422, 570,
 580

H

Handicapped user, 410
 Hearing impaired people, 411
 Heuristics, 53, 57, 95, 96, 103, 108, 109, 111,
 166, 235, 237, 352, 664, 685, 686
 Hierarchical clustering, 125–128, 236, 271,
 273
 Human behavior, 4, 12, 91, 132, 427–444
 Human-computer-interaction (HCI), 586, 608,
 621
 Hybrid visualization, 607, 608, 630
 Hyperbolic tree, 592
 Hyperlink-induced topic search (HITS),
 47–51, 55, 56, 102, 133, 134, 211, 332,
 335, 336, 381, 391, 396, 585, 588, 645

I

Influence, 3, 54, 102, 117, 150, 170, 186, 224,
 244, 294, 352, 379, 429, 471, 519, 526,
 550, 640, 651, 693
 Information and communication technologies
 (ICTs), 17, 18, 117

Information sharing, 12, 250, 261, 269, 640,
 641, 697
 Innovation, 17, 55, 60, 64, 79, 81, 351, 428,
 434–435, 640, 641, 646, 691–693, 695,
 696, 699–708

K

Knowledge inference, 429, 435

L

Latent semantics, 202, 304, 306, 309, 404
 Length, 6, 13, 18, 180, 182, 199, 209, 255,
 256, 291, 367, 380, 387, 388, 401–403,
 450, 452, 453, 462, 465, 530, 556, 588,
 599, 600, 624, 677, 678
 Links, 3, 24, 48, 64, 98, 116, 169, 185, 227,
 247, 286, 331, 352, 381, 411, 438, 452,
 498, 528, 552, 569, 589, 612, 638, 657,
 692,
 Log file analysis, 116, 119–121

M

Mainstream users, 411, 420
 Managerial, 692, 696, 699, 700, 707
 Marketing, 11, 24, 30, 37, 102, 122, 185, 203,
 204, 206, 207, 237, 415, 429, 440, 447,
 499, 500, 516, 527, 642, 651–654,
 656–658, 661, 664, 670, 674, 679,
 683–685, 697, 707
 Memorability, 411
 Memory-based methods, 317–321
 MetaFac, 382, 383, 404, 406
 Multidimensional scaling (MDS), 124, 586
 Multi-relational mining, 382
 Music, 55, 65, 80, 96, 98, 102–104, 108, 109,
 130, 236, 262, 281, 282, 284, 289,
 294–296, 299, 300, 355, 412, 505, 637,
 676
 Mutual awareness, 382–387, 390, 392
 MySpace, 63, 79, 96, 97, 102, 106, 130, 251,
 255, 263, 282, 411–413, 418–423, 471,
 473, 475, 476, 499

N

Nearest neighborhood algorithm, 318
 NETMINER, 18, 19, 116, 275
 Network, 3, 23, 45, 59, 95, 115, 147, 169, 185,
 223, 241, 269, 281, 303, 317, 331, 349,
 379, 409, 427, 447, 471, 497, 523, 549,
 569, 585, 611, 637, 651, 692

News video face,
 Node, 3, 24, 47, 59, 100, 116, 150, 170, 202,
 227, 255, 331, 352, 385, 429, 448, 478,
 506, 523, 551, 585, 612, 639, 655
 Node degree, 28, 30, 36, 38, 39, 551, 587–588
 Node density, 588
 Node-edge diagram, 590–593

O

One mode network, 16, 148, 164
 Operability, 247, 411, 509
 Operable, 416, 421
 Organizational, 19, 80–82, 91, 131, 132, 242,
 264, 265, 397, 506, 529, 640–641, 691,
 692

P

PageRank, 47, 55, 56, 133, 134, 211, 381, 391,
 396, 477, 478, 529, 585, 588, 645, 657
 PAJEK, 18, 19, 116, 275
 PARAFAC, 49–51, 53, 54, 408
 Partitional clustering, 123, 124
 Path, 6, 56, 117, 170, 205, 249, 273, 336, 351,
 388, 412, 437, 449, 479, 523, 553, 588,
 622, 668
 Path length, 13–14, 180, 182, 209, 388, 588,
 599, 600, 677
 People with cognitive problems, 411
 People with mobility and movement problems,
 411
 Perceivable, 416, 420, 421
 Perceptibility, 411
 Personalization, 56, 226, 236, 237, 428, 434,
 435
 Power law, 23, 24, 26, 27, 31, 32, 40, 343, 551,
 614, 667, 668
 Principal component analysis, 10, 124, 125,
 130
 Privacy, 54, 199, 242, 350, 428, 478, 497, 556,
 570, 658, 702

R

Radial tree, 592
 Reality mining, 237, 428
 Recommender system, 188, 317–321, 324,
 326, 327, 329, 471, 642, 657
 Robust, 50, 61, 82, 147, 148, 155, 164, 202,
 237, 265, 352, 354, 369, 372–374, 411,
 417, 422, 493, 691

S

Scale-free network, 31, 667
 Semantic web, 45, 227, 229, 340, 342, 362,
 478, 595, 608
 Similarity, 56, 123, 154, 204, 228, 270, 300,
 317, 366, 389, 429, 493, 513, 615, 639,
 655
 Singular value decomposition, 49, 124
 Six degree of separation, 585
 Small-world network, 608, 614, 630
 Social actor, 3–6, 10, 12, 15, 16, 18
 Social bookmarking, 65, 130, 368, 691–708
 Social capital, 11, 18, 185, 189
 Sociality, 587, 594, 607
 Social media, 54, 55, 59, 62, 63, 65, 68,
 79–81, 285, 300, 379–381, 383,
 396–400, 403, 405, 406, 443
 Social network, 3, 23, 45, 59, 95, 115, 147,
 169, 185, 223, 241, 269, 281, 303, 331,
 349, 379, 409, 427, 447, 471, 497, 523,
 549, 569, 585, 611, 637, 651
 Social network analysis (SNA), 3–20, 59, 83,
 116–123, 129–134, 147–166, 169, 171,
 182, 186, 201, 203–204, 209, 216, 275,
 331, 337, 342, 381, 391, 429, 448, 451,
 526–531, 587–589, 594, 595, 600, 608,
 612, 613, 615, 621, 627, 628, 637–648
 Social networking service (SNS), 4, 24, 32–37,
 212, 213, 349, 350, 352, 353, 357, 360,
 362, 374, 498, 499, 507, 520, 646
 Social networks, quantitative analysis, 9, 96,
 100–111
 Social structure, 3, 4, 9, 11, 15, 18, 117, 129,
 132, 153, 164, 169, 173, 594, 597, 637,
 639
 Social tagging, 285, 353, 657
 SocialWeb, 48, 56, 410
 Sociogram, 586, 587, 639
 Special needs user, 420
 Spectral clustering, 127, 135, 136, 138, 140
 STOCNET, 18
 Structural hole, 11, 18
 STRUCTURE, 18, 19

T

Technical robustness, 411
 Technology Acceptance Model (TAM),
 692–695
 Technology adoption, 691–708
 Tensor, 45–57, 382, 383, 397–404, 406

Tie, 3–5, 8, 11–14, 16–18, 59, 61, 65, 100,
 110, 117, 135, 188, 190, 206, 208, 209,
 227, 283, 353, 384, 396, 405, 473, 589,
 611, 647
 Traffic, 23–32, 38, 42, 102, 131, 261, 412, 443,
 510, 549, 550, 555, 556, 558, 566, 644
 Twitter, 45–48, 52, 54, 55, 59, 64, 80–84, 87,
 90, 350, 368, 369, 379, 380, 475, 572,
 579, 585, 604, 651
 Two mode network, 5, 15, 16

U

UCINET, 18
 Understandability, 411
 Understandable, 121, 229, 235, 265, 416, 421,
 451, 455, 458

Undirected graph, 6, 127, 449, 454, 457, 462,
 463, 588
 Usability standard, 410
 User-centric, 249, 250, 258, 260, 283, 428,
 434, 595, 607
 User-centric visualization, 607, 608

V

Visually impaired people, 411

W

Web 2.0 service, 594, 604–607
 Web Content Accessibility Guidelines, 415