

Bibliography

- [1] S. Dixon, “ Statista social media statistics and facts, the global statistics,” <https://www.statista.com/topics/1164/social-networks/#topicOverview>, accessed: 2023-01-30.
- [2] —, “Digital 2023: Sri lanka — datareportal – global digital in- sights,” <https://datareportal.com/reports/digital-2023-sri-lanka>, accessed: 2023-01-30.
- [3] D. C. Raza, Shaina, “Fake news detection based on news content and social contexts: a transformer-based approach,” *International Journal of Data Science and Analytics*, vol. 13, no. 4, pp. 335–362, May 2022. [Online]. Available: <https://doi.org/10.1007/s41060-021-00302-z>
- [4] Z. S. Dong, L. Meng, L. Christenson, and L. Fulton, “Social media information sharing for natural disaster response,” *Natural Hazards*, vol. 107, no. 3, pp. 2077–2104, Jul 2021. [Online]. Available: <https://doi.org/10.1007/s11069-021-04528-9>
- [5] T. K. K. D. S. K. S. T. K. R. Sharma, A., “Disaster analysis through tweets,” in *Third Congress on Intelligent Systems*. Singapore: Springer Nature Singapore, 2023, pp. 543–554.
- [6] D. Boyd and N. B. Ellison, “Social network sites: Definition, history, and scholarship,” *Journal of Computer-Mediated Communication*, vol. 13, no. 1, pp. 210–230, 2007.
- [7] A. Nash, “Chapter 1 - affect, people, and digital social networks,” in *Emotions, Technology, and Social Media*, ser. Emotions and

Technology, S. Y. Tettegah, Ed. San Diego: Academic Press, 2016, pp. 3–23. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/B9780128018576000014>

- [8] E. Lai, Linda S. L. and Turban, “Groups formation and operations in the web 2.0 environment and social networks,” *Group Decision and Negotiation*, vol. 17, no. 5, pp. 387–402, Sep 2008. [Online]. Available: <https://doi.org/10.1007/s10726-008-9113-2>
- [9] H. Purtik and D. Arenas, “Embedding social innovation: Shaping societal norms and behaviors throughout the innovation process,” *Business & Society*, vol. 58, no. 5, pp. 963–1002, 2019. [Online]. Available: <https://doi.org/10.1177/0007650317726523>
- [10] N. K. Hayles, *How we think: Digital media and contemporary technogenesis*. University of Chicago Press, 2012.
- [11] P. A. Grabowicz, J. J. Ramasco, E. Moro, J. M. Pujol, and V. M. Eguiluz, “Social features of online networks: The strength of in-termediary ties in online social media,” *PloS one*, vol. 7, no. 1, p. e29358, 2012.
- [12] D. Camacho, Á Panizo-LLedot, G. Bello-Orgaz, A. Gonzalez-Pardo, and E. Cambria, “The four dimensions of social network analysis: An overview of research methods, applications, and soft-ware tools,” *Information Fusion*, vol. 63, pp. 88–120, 2020.
- [13] A. Majeed and I. Rauf, “Graph theory: A comprehensive survey about graph theory applications in computer science and social net-works,” *Inventions*, vol. 5, no. 1, p. 10, 2020.
- [14] R. F. Bales, “Interaction process analysis: A method for the study of small groups,” *Cambridge, Mass.: Addison-Wesley*, 1950.
- [15] —, “A set of categories for the analysis of small group interaction,” *American Sociological Review*, vol. 15, no. 2, pp. 257–263, 1950. [Online]. Available: <http://www.jstor.org/stable/2086790>

- [16] H. M. M. Caldera, G. S. N. Meedin, and I. Perera, "Time series based trend analysis for hate speech in twitter during covid 19 pan- demic," in *2020 20th International Conference on Advances in ICT for Emerging Regions (ICTer)*, 2020, pp. 1–2.
- [17] K. Z. Khanam, G. Srivastava, and V. Mago, "The homophily prin- ciple in social network analysis," *arXiv preprint arXiv:2008.10383*, 2020.
- [18] G. Vasanthakumar, "Cascading behavior in networks," *Social Net- work Analysis: Theory and Applications*, pp. 51–61, 2022.
- [19] M. Cai, H. Luo, and Y. Cui, "A study on the topic-sentiment evo- lution and diffusion in time series of public opinion derived from emergencies," *Complexity*, vol. 2021, pp. 1–23, 2021.
- [20] G. F. Hollewell and N. Longpré, "Radicalization in the social media era: Understanding the relationship between self-radicalization and the internet," *International journal of offender therapy and compar- ative criminology*, vol. 66, no. 8, pp. 896–913, 2022.
- [21] R. R. Mourão and D. K. Brown, "Black lives matter coverage: How protest news frames and attitudinal change affect social media en- gagement," *Digital Journalism*, vol. 10, no. 4, pp. 626–646, 2022.
- [22] G. G. W and K. R. M, "Cyberbullying via social media and well- being," *Current Opinion in Psychology*, p. 101314, 2022.
- [23] M. Saldaña and H. T. Vu, "You are fake news! factors impacting journalists' debunking behaviors on social media," *Digital Journal- ism*, vol. 10, no. 5, pp. 823–842, 2022.
- [24] Y. Chen and L. Wang, "Misleading political advertising fuels incivility online: A social network analysis of 2020 u.s. presidential election campaign video comments on youtube," *Comput. Hum. Behav.*, vol. 131, no. C, jun 2022. [Online]. Available: <https://doi.org/10.1016/j.chb.2022.107202>

- [25] S. Sinha, S. Bhattacharya, and S. Roy, "Impact of second-order network motif on online social networks," *The Journal of Super-computing*, vol. 78, no. 4, pp. 5450–5478, 2022.
- [26] W. Lee, "Machine learning and security: The good, the bad, and the ugly," in *Proceedings of the 2020 ACM SIGSAC Conference on Computer and Communications Security*, ser. CCS '20. New York, NY, USA: Association for Computing Machinery, 2020, p. 1–2. [Online]. Available: <https://doi.org/10.1145/3372297.3424552>
- [27] A. Ceron, *Elgar Encyclopedia of Technology and Politics*. Cheltenham, UK: Edward Elgar Publishing, 2022. [Online]. Available: <https://www.elgaronline.com/view/book/9781800374263/9781800374263.xml>
- [28] D. L. Hoffman, C. P. Moreau, S. Stremersch, and M. Wedel, "The rise of new technologies in marketing: A framework and outlook," *Journal of Marketing*, vol. 86, no. 1, pp. 1–6, 2022. [Online]. Available: <https://doi.org/10.1177/00222429211061636>
- [29] J. a. L. H. Frade, J. H. C. d. Oliveira, and J. d. M. E. Giraldi, "Advertising in streaming video: An integrative literature review and research agenda," *Telecommun. Policy*, vol. 45, no. 9, oct 2021. [Online]. Available: <https://doi.org/10.1016/j.telpol.2021.102186>
- [30] S. K. V, N. KP, and G. B. Kamath, "Social media advertisements and their influence on consumer purchase intention," *Cogent Business & Management*, vol. 8, no. 1, p. 2000697, 2021. [Online]. Available: <https://doi.org/10.1080/23311975.2021.2000697>
- [31] M. T. Febriyantor, "Exploring youtube marketing communication: Brand awareness, brand image and purchase intention in the millennial generation," *Cogent Business & Management*, vol. 7, no. 1, p. 1787733, 2020. [Online]. Available: <https://doi.org/10.1080/23311975.2020.1787733>

- [32] A. O. Insorio and D. M. Macandog, "Video lessons via youtube channel as mathematics interventions in modular distance learning," *Contemporary Mathematics and Science Education*, vol. 3, no. 1, p. ep22001, 2022.
- [33] S. Asur and B. A. Huberman, "Predicting the future with social media," *Proceedings of the 2010 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology-Volume 1*, pp. 492–499, 2010.
- [34] O. Boichak, "511Digital War: Mediatized Conflicts in Sociological Perspective," in *The Oxford Handbook of Digital Media Sociology*. Oxford University Press, 09 2022. [Online]. Available: <https://doi.org/10.1093/oxfordhb/9780197510636.013.31>
- [35] H. Pang, "Connecting mobile social media with psychosocial well-being: Understanding relationship between wechat involvement, network characteristics, online capital and life satisfaction," *Social Networks*, vol. 68, pp. 256–263, 2022.
- [36] YouTube, "Statistics," <https://www.youtube.com/about/press/>, n.d., accessed January 3, 2023.
- [37] D. Conway, "The data science venn diagram." <https://drewconway.com/zia/2013/3/26/the-data-science-venn-diagram>, accessed: 2023-01-30.
- [38] D. T. Larose, *Discovering Knowledge in Data: An Introduction to Data Mining*, 2nd ed. Hoboken, NJ: John Wiley & Sons, 2014.
- [39] R. E. Kent and C. Neuss, "Creating a web analysis and visualization environment," *Comput. Netw. ISDN Syst.*, vol. 28, no. 1–2, p. 109–117, dec 1995. [Online]. Available: [https://doi.org/10.1016/0169-7552\(95\)00095-X](https://doi.org/10.1016/0169-7552(95)00095-X)
- [40] R. T. Fielding and R. N. Taylor, *Architectural Styles and the Design of Network-based Software Architectures*. Irvine, CA: University of California, Irvine, 2000.

- [41] H. Peng, F. Long, and C. Ding, "Feature selection based on mutual information: Criteria of max-dependency, max-relevance, and min- redundancy," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 27, pp. 1226–1238, 2005.
- [42] J. Anitha, I.-H. Ting, S. A. Agnes, S. I. A. Pandian, and R. Belfin, "Chapter 3 - social media data analytics using feature engineering," in *Systems Simulation and Modeling for Cloud Computing and Big Data Applications*, ser. Advances in ubiquitous sensing applications for healthcare, J. D. Peter and S. L. Fernandes, Eds. Academic Press, 2020, pp. 29–59. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/B9780128197790000034>
- [43] G. Dong and H. Liu, *Feature Engineering for Machine Learning and Data Analytics*, 1st ed. USA: CRC Press, Inc., 2018.
- [44] M. Newman, *Networks: An Introduction*, 1st ed. Oxford, UK: Oxford University Press, 2010.
- [45] A. Hodler and M. Needham, "Introducing graph data science," <https://neo4j.com/blog/introducing-graph-data-science/>, July 2019, accessed on March 13, 2023.
- [46] K. Ognyanova, "Social network analysis," in *Elgar Encyclopedia of Technology and Politics*. Edward Elgar Publishing, pp. 126–130.
- [47] J. Zhang and P. S. Yu, *Information Diffusion*. Cham: Springer International Publishing, 2019, pp. 315–349. [Online]. Available: https://doi.org/10.1007/978-3-030-12528-8_9
- [48] P. Bonacich, "Power and centrality: A family of measures," *American Journal of Sociology*, vol. 92, no. 5, pp. 1170–1182, 1987. [Online]. Available: <https://doi.org/10.1086/228631>
- [49] C. Laghridat and M. Essalih, "A set of measures of centrality by level for social network analysis," *Procedia Computer Science*, vol. 219, pp. 751–758, 2023, cENTERIS – International

Conference on ENTERprise Information Systems / ProjMAN – International Conference on Project MANagement / HCist – International Conference on Health and Social Care Information Systems and Technologies 2022. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1877050923003575>

[//www.sciencedirect.com/science/article/pii/S1877050923003575](https://www.sciencedirect.com/science/article/pii/S1877050923003575)

- [50] V. D. Blondel, J.-L. Guillaume, R. Lambiotte, and E. Lefebvre, “Fast unfolding of communities in large networks,” *Journal of Statistical Mechanics: Theory and Experiment*, vol. 2008, p. P10008, 2008. [Online]. Available: <https://api.semanticscholar.org/CorpusID:334423>
- [51] D. Kempe, J. Kleinberg, and E. Tardos, “Maximizing the spread of influence through a social network,” in *Proceedings of the Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, ser. KDD '03. New York, NY, USA: Association for Computing Machinery, 2003, p. 137–146. [Online]. Available: <https://doi.org/10.1145/956750.956769>
- [52] W. Kermack and A. McKendrick, “Contributions to the mathematical theory of epidemics—i,” *Bulletin of Mathematical Biology*, vol. 53, no. 1, pp. 33–55, 1991. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0092824005800400>
- [53] S. C. Deerwester, S. T. Dumais, T. K. Landauer, G. W. Furnas, and R. A. Harshman, “Indexing by latent semantic analysis,” *J. Am. Soc. Inf. Sci.*, vol. 41, pp. 391–407, 1990. [Online]. Available: <https://api.semanticscholar.org/CorpusID:3252915>
- [54] D. D. Lee, M. Hill, and H. S. Seung, “Algorithms for non- negative matrix factorization,” in *Neural Information Processing Systems*, 2000. [Online]. Available: <https://api.semanticscholar.org/CorpusID:2095855>
- [55] D. M. Blei, A. Y. Ng, and M. I. Jordan, “Latent dirichlet allocation,” *J. Mach. Learn. Res.*, vol. 3, no. null, p. 993–1022, mar 2003.

- [56] D. Kempe, J. Kleinberg, and E. Tardos, "Maximizing the spread of influence through a social network," in *Proceedings of the Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, ser. KDD '03. New York, NY, USA: Association for Computing Machinery, 2003, p. 137–146. [Online]. Available: <https://doi.org/10.1145/956750.956769>
- [57] M. Granovetter, "Threshold models of collective behavior," *American Journal of Sociology*, vol. 83, no. 6, pp. 1420–1443, 1978. [Online]. Available: <https://doi.org/10.1086/226707>
- [58] G. Box, *Box and Jenkins: Time Series Analysis, Forecasting and Control*. London: Palgrave Macmillan UK, 2013, pp. 161–215. [Online]. Available: https://doi.org/10.1057/9781137291264_6
- [59] P. N. Nohuddin, F. Coenen, R. Christley, C. Setzkorn, Y. Patel, and S. Williams, "Finding "interesting" trends in social networks using frequent pattern mining and self organizing maps," *Knowledge- Based Systems*, vol. 29, pp. 104–113, 2012.
- [60] D. Y. T. A. A. Avetisyana, M. D. Drobyshevskiya and T. Ghukasyane, "Methods for information diffusion analysis." *Programming and Computer Software*, vol. 45, no. 1, pp. 1608–3261, 2019.
- [61] S. Stieglitz and L. Dang-Xuan, "Emotions and information diffusion in social media—sentiment of microblogs and sharing behavior," *Journal of Management Information Systems*, vol. 29, no. 4, pp. 217–248, 2013. [Online]. Available: <https://doi.org/10.2753/MIS0742-1222290408>
- [62] R. Li and A. Suh, "Factors influencing information credibility on social media platforms: Evidence from facebook pages," *Procedia Computer Science*, vol. 72, pp. 314–328, 2015, the Third Information Systems International Conference 2015. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1877050915036078>

- [63] J. G. Blumler and E. Katz, "The uses of mass communications: Current perspectives on gratifications research," *Sage Annual Reviews of Communication Research: Advancing Communication Science: Merging Mass and Interpersonal Processes*, vol. 2, pp. 144–171, 1974.
- [64] P. N. Petratos, "Misinformation, disinformation, and fake news: Cyber risks to business," *Business Horizons*, vol. 64, no. 6, pp. 763–774, 2021, cIBER SPECIAL ISSUE: CYBERSECURITY IN CRISIS. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S000768132100135X>
- [65] M. Wang and K. Li, "Predicting information diffusion cascades using graph attention networks," in *Neural Information Processing*, H. Yang, K. Pasupa, A. C.-S. Leung, J. T. Kwok, J. H. Chan, and I. King, Eds. Cham: Springer International Publishing, 2020, pp. 104–112.
- [66] Z. Zhang and Z. Wang, "The data-driven null models for information dissemination tree in social networks," *Physica A: Statistical Mechanics and its Applications*, vol. 484, pp. 394–411, 2017. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0378437117304995>
- [67] S. A. Z. H. Goel A., Munagala K., "A note on modeling retweet cascades on twitter," in *Algorithms and Models for the Web Graph*. Cham: Springer International Publishing, 2015, pp. 119–131.
- [68] S. W. McCormack R., "An application of epidemiological modeling to information diffusion," in *Advances in Social Computing*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2010, pp. 382–389.
- [69] F. Zhou, X. Xu, G. Trajcevski, and K. Zhang, "A survey of information cascade analysis: Models, predictions, and recent advances," *ACM Comput. Surv.*, vol. 54, no. 2, mar 2021. [Online]. Available: <https://doi.org/10.1145/3433000>

- [70] N. L. T. Charalambos Christoforou, Kalliopi Malerou and A. Vakali, "Difcurv: A unified framework for diffusion curve fitting and prediction in online social networks," *Array*, vol. 12, p. 100100, 2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2590005621000448>
- [71] Z. Y. Ren X., "Predicting information diffusion in social networks with users' social roles and topic interests," in *Information Retrieval Technology*. Cham: Springer International Publishing, 2016, pp. 349–355.
- [72] A. Saxena, S. R. Iyengar, and Y. Gupta, "Understanding spreading patterns on social networks based on network topology," in *Proceedings of the 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2015*, ser. ASONAM '15. New York, NY, USA: Association for Computing Machinery, 2015, p. 1616–1617. [Online]. Available: <https://doi.org/10.1145/2808797.2809360>
- [73] R. R. Singh, *Centrality Measures: A Tool to Identify Key Actors in Social Networks*. Singapore: Springer Singapore, 2022, pp. 1–27. [Online]. Available: https://doi.org/10.1007/978-981-16-3398-0_1
- [74] Y. Wang and G. Chirikjian, "A diffusion-based algorithm for workspace generation of highly articulated manipulators," in *Proceedings 2002 IEEE International Conference on Robotics and Automation (Cat. No.02CH37292)*, vol. 2, 2002, pp. 1525–1530 vol.2.
- [75] K. S. H. J. Z. W. S. S. Majbouri Yazdi K., Yazdi A.M., "Integrating ant colony algorithm and node centrality to improve prediction of information diffusion in social networks," in *Security, Privacy, and Anonymity in Computation, Communication, and Storage*. Cham: Springer International Publishing, 2018, pp. 381–391.
- [76] E. Yoo, B. Gu, and E. Rabinovich, "Diffusion on social media platforms: A point process model for interaction among

similar content,” *Journal of Management Information Systems*, vol. 36, no. 4, pp. 1105–1141, 2019. [Online]. Available: <https://doi.org/10.1080/07421222.2019.1661096>

- [77] Q. Bao, W. K. Cheung, Y. Zhang, and J. Liu, “A component-based diffusion model with structural diversity for social networks,” *IEEE Transactions on Cybernetics*, vol. 47, no. 4, pp. 1078–1089, 2017.
- [78] R. Sharma, T. Arya, S. Arora, A. Arya, and P. Agarwal, “A naive deep nets based approach for authenticating viral textual content on social media,” in *Intelligent Systems and Applications*, K. Arai, S. Kapoor, and R. Bhatia, Eds. Cham: Springer International Publishing, 2019, pp. 679–689.
- [79] L. Liu, B. Qu, B. Chen, A. Hanjalic, and H. Wang, “Modelling of information diffusion on social networks with applications to wechat,” *Physica A: Statistical Mechanics and its Applications*, vol. 496, pp. 318–329, 2018. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0378437117312785>
- [80] M. Gomez-Rodriguez, J. Leskovec, and A. Krause, “Inferring networks of diffusion and influence,” *ACM Trans. Knowl. Discov. Data*, vol. 5, no. 4, feb 2012. [Online]. Available: <https://doi.org/10.1145/2086737.2086741>
- [81] M. EL-MOUSSAOUI, T. AGOUTI, A. TIKNIOUINE, and M. E. ADNANI, “A comprehensive literature review on community detection: Approaches and applications,” *Procedia Computer Science*, vol. 151, pp. 295–302, 2019, the 10th International Conference on Ambient Systems, Networks and Technologies (ANT 2019) / The 2nd International Conference on Emerging Data and Industry 4.0 (EDI40 2019) / Affiliated Workshops. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1877050919305046>
- [82] A. Ahmad, T. Ahmad, and A. Bhatt, “Hwsmbc: A community- based hybrid approach for identifying influential nodes in

the social network,” *Physica A: Statistical Mechanics and its Applications*, vol. 545, p. 123590, 2020. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0378437119319983>

- [83] C. M. G. F. Berlingerio, M., “Mining the temporal dimension of the information propagation,” in *Advances in Intelligent Data Analysis VIII. IDA 2009. Lecture Notes in Computer Science*. Springer, Berlin, Heidelberg, 2009, pp. 1163–1168.
- [84] A. Antelmi, G. Cordasco, C. Spagnuolo, and P. Szufel, “Information diffusion in complex networks: A model based on hypergraphs and its analysis,” in *Algorithms and Models for the Web Graph*, B. Kamiński, P. Pralat, and P. Szufel, Eds. Cham: Springer International Publishing, 2020, pp. 36–51.
- [85] L. Jain, R. Katarya, and S. Sachdeva, “Opinion leaders for information diffusion using graph neural network in online social networks,” *ACM Trans. Web*, vol. 17, no. 2, apr 2023. [Online]. Available: <https://doi.org/10.1145/3580516>
- [86] —, “Opinion leaders for information diffusion using graph neural network in online social networks,” *ACM Trans. Web*, vol. 17, no. 2, apr 2023. [Online]. Available: <https://doi.org/10.1145/3580516>
- [87] K. Lytvyniuk, R. Sharma, and A. Jurek-Loughrey, “Predicting information diffusion in online social platforms: A twitter case study,” in *Complex Networks and Their Applications VII*, L. M. Aiello, C. Cherifi, H. Cherifi, R. Lambiotte, P. Lió, and L. M. Rocha, Eds. Cham: Springer International Publishing, 2019, pp. 405–417.
- [88] S. P. Borgatti, “Identifying sets of key players in a social network,” *Comput. Math. Organ. Theory*, vol. 12, no. 1, p. 21–34, apr 2006. [Online]. Available: <https://doi.org/10.1007/s10588-006-7084-x>
- [89] R. H. Shumway and D. S. Stoffer, *Time Series Analysis and Its Applications: With R Examples*. Springer, 2017.

- [90] G. E. Box, G. M. Jenkins, G. C. Reinsel, and L. Ljung, *Time Series Analysis: Forecasting and Control*. Wiley, 2015.
- [91] Z. Liu, Z. Zhu, J. Gao, and C. Xu, “Forecast methods for time series data: A survey,” *IEEE Access*, vol. 9, pp. 91 896–91 912, 2021.
- [92] C. Chatfield, *The Analysis of Time Series: An Introduction*. CRC Press, 2016.
- [93] P. J. Brockwell and R. A. Davis, *Introduction to Time Series and Forecasting*. Springer, 2016.
- [94] R. J. Hyndman and G. Athanasopoulos, *Forecasting: principles and practice*. OTexts, 2018.
- [95] E. S. Gardner, *Exponential smoothing: the state of the art*. Springer, 1985.
- [96] D. M. Blei, A. Y. Ng, and M. I. Jordan, “Latent dirichlet allocation,” *Journal of Machine Learning Research*, vol. 3, no. Jan, pp. 993– 1022, 2003.
- [97] N. F. Noy and D. L. McGuinness, “Ontology development 101: A guide to creating your first ontology,” *Stanford knowledge systems laboratory technical report*, vol. No. KSL-01-05, pp. 1–24, 2001.
- [98] X.-X. Z. X. L. C.-X. Z. Zi-Ke Zhang, Chuang Liu and Y.-C. Zhang, “Dynamics of information diffusion and its applications on complex networks,” *Physics Reports*, vol. 651, pp. 1–34, 2016, dynamics of information diffusion and its applications on complex networks. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0370157316301600>
- [99] C. J. G. Juan Pablo Alperin and S. Haustein, “Identifying diffusion patterns of research articles on twitter: A case study of online engagement with open access articles,” *Public Understanding of Science*, vol. 28, no. 1, pp. 2–18, 2019, PMID: 29607775. [Online]. Available: <https://doi.org/10.1177/0963662518761733>

- [100] H. T. Tu, T. T. Phan, and K. P. Nguyen, "Modeling information diffusion in social networks with ordinary linear differential equations," *Information Sciences*, vol. 593, pp. 614–636, 2022. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0020025522001025>
- [101] A. Attard and N. S. Coulson, "A thematic analysis of patient communication in parkinson's disease online support group discussion forums," *Computers in Human Behavior*, vol. 28, no. 2, pp. 500–506, 2012. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0747563211002391>
- [102] S. R. J. Pujari, V. S. Bhat, and A. Dixit, "Timeline analysis of twitter user," *Procedia Computer Science*, vol. 132, pp. 157–166, 2018, international Conference on Computational Intelligence and Data Science. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S187705091830913X>
- [103] C. Y. Joa and G. W. Yun, "Who sets social media sentiment?: Sentiment contagion in the 2016 u.s. presidential election media tweet network," *Journalism Practice*, vol. 16, no. 7, pp. 1449–1472, 2022. [Online]. Available: <https://doi.org/10.1080/17512786.2020.1856708>
- [104] J. J. Dabrowski, J. P. de Villiers, and C. Beyers, "Naïve bayes switching linear dynamical system: A model for dynamic system modelling, classification, and information fusion," *Information Fusion*, vol. 42, pp. 75–101, 2018. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1566253517300210>
- [105] L. Zhang and B. Liu, *Sentiment Analysis and Opinion Mining*. Boston, MA: Springer US, 2016, pp. 1–10. [Online]. Available: https://doi.org/10.1007/978-1-4899-7502-7_907-1
- [106] V. Krishnamurthy and W. Hoiles, "Chapter 21 - dynamics of information diffusion and social sensing," in *Cooperative and Graph*

Signal Processing, P. M. Djurić and C. Richard, Eds. Academic Press, 2018, pp. 525–600. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/B9780128136775000213>

- [107] T. Cover and P. Hart, “Nearest neighbor pattern classification,” *IEEE Transactions on Information Theory*, vol. 13, no. 1, pp. 21–27, 1967.
- [108] S. Jiang, G. Pang, M. Wu, and L. Kuang, “An improved k-nearest-neighbor algorithm for text categorization,” *Expert Systems with Applications*, vol. 39, no. 1, pp. 1503–1509, 2012. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0957417411011511>
- [109] J. R. Quinlan, “Induction of decision trees,” in *Machine Learning*, vol. 1, no. 1. Springer, 1986, pp. 81–106.
- [110] P.-L. Tu and J.-Y. Chung, “A new decision-tree classification algorithm for machine learning,” in *Proceedings Fourth International Conference on Tools with Artificial Intelligence TAI '92*, 1992, pp. 370–377.
- [111] A. Ratnaparkhi and M. P. Marcus, “Maximum entropy models for natural language ambiguity resolution,” 1998. [Online]. Available: <https://api.semanticscholar.org/CorpusID:2600845>
- [112] Z. Liu, J. Yu, L. Gu, and X. Han, “Dynamic information diffusion model based on weighted information entropy,” in *Computer Supported Cooperative Work and Social Computing*, Y. Sun, T. Lu, B. Cao, H. Fan, D. Liu, B. Du, and L. Gao, Eds. Springer Nature Singapore, 2022, pp. 512–524.
- [113] S. Gao, H. Pang, P. Gallinari, J. Guo, and N. Kato, “A novel embedding method for information diffusion prediction in social network big data,” *IEEE Transactions on Industrial Informatics*, vol. 13, no. 4, pp. 2097–2105, 2017.
- [114] F. Wang, H. Wang, and K. Xu, “Diffusive logistic model towards predicting information diffusion in online social networks,” in *2012*

32nd International Conference on Distributed Computing Systems Workshops, 2012, pp. 133–139.

- [115] H. Wang, C. Yang, and C. Shi, “Neural information diffusion prediction with topic-aware attention network,” in *Proceedings of the 30th ACM International Conference on Information & Knowledge Management*, ser. CIKM ’21. New York, NY, USA: Association for Computing Machinery, 2021, p. 1899–1908. [Online]. Available: <https://doi.org/10.1145/3459637.3482374>
- [116] S. N. Firdaus, C. Ding, and A. Sadeghian, “Retweet: A popular information diffusion mechanism—a survey paper,” *Online Social Networks and Media*, vol. 6, pp. 26–40, 2018.
- [117] E. Stai, E. Milaiou, V. Karyotis, and S. Papavassiliou, “Temporal dynamics of information diffusion in twitter: Modeling and experimentation,” *IEEE Transactions on Computational Social Systems*, vol. 5, no. 1, pp. 256–264, 2018.
- [118] H.-C. Chang, “A new perspective on twitter hashtag use: Diffusion of innovation theory,” *Proceedings of the American Society for Information Science and Technology*, vol. 47, no. 1, pp. 1–4, 2010.
- [119] K. Dey, S. Kaushik, and L. V. Subramaniam, “Literature survey on interplay of topics, information diffusion and connections on social networks,” *arXiv preprint arXiv:1706.00921*, 2017.
- [120] T. Kameda and R. Hastie, “Herd behavior,” *Emerging trends in the social and behavioral sciences: An interdisciplinary, searchable, and linkable resource*, pp. 1–14, 2015.
- [121] J. Mattke, C. Maier, L. Reis, and T. Weitzel, “Herd behavior in social media: The role of facebook likes, strength of ties, and expertise,” *Information & Management*, vol. 57, no. 8, p. 103370, 2020.
- [122] A. Guille, H. Hacid, C. Favre, and D. A. Zighed, “Information diffusion in online social networks: A survey,” *ACM Sigmod Record*, vol. 42, no. 2, pp. 17–28, 2013.

- [123] I. Pitas, *Graph-Based Social Media Analysis*, ser. Chapman & Hall/CRC Data Mining and Knowledge Discovery Series. CRC Press, 2016. [Online]. Available: <https://books.google.lk/books?id=BvYYCwAAQBAJ>
- [124] L. Wu, P. Cui, J. Pei, and L. Zhao, *Graph Neural Networks: Foundations, Frontiers, and Applications*. Springer Singapore, 2022. [Online]. Available: <https://books.google.lk/books?id=XplXEAAAQBAJ>
- [125] Y. Lu, L. Yu, T. Zhang, C. Zang, P. Cui, C. Song, and W. Zhu, “Collective human behavior in cascading system: discovery, modeling and applications,” in *2018 IEEE International Conference on Data Mining (ICDM)*. IEEE, 2018, pp. 297–306.
- [126] B. Wang, L. Ma, and Q. He, “Idpso for influence maximization under independent cascade model,” in *2022 4th International Conference on Data-driven Optimization of Complex Systems (DOCS)*, 2022, pp. 1–6.
- [127] —, “Idpso for influence maximization under independent cascade model,” in *2022 4th International Conference on Data-driven Optimization of Complex Systems (DOCS)*, 2022, pp. 1–6.
- [128] W. Yang, L. Brenner, and A. Giua, “Computation of activation probabilities in the independent cascade model,” in *2018 5th International Conference on Control, Decision and Information Technologies (CoDIT)*, 2018, pp. 791–797.
- [129] W. Chen, Y. Yuan, and L. Zhang, “Scalable influence maximization in social networks under the linear threshold model,” in *2010 IEEE international conference on data mining*. IEEE, 2010, pp. 88–97.
- [130] G. Fibich, “Bass-sir model for diffusion of new products in social networks,” *Physical Review E*, vol. 94, no. 3, p. 032305, 2016.

- [131] F. Riquelme and J.-A. Vera, "A parameterizable influence spread- based centrality measure for influential users detection in social networks," *Knowledge-Based Systems*, vol. 257, p. 109922, 2022.
- [132] D. Kempe, J. Kleinberg, and É Tardos, "Maximizing the spread of influence through a social network," in *Proceedings of the ninth ACM SIGKDD international conference on Knowledge discovery and data mining*. ACM, 2003, pp. 137–146.
- [133] B. Golub and M. O. Jackson, "Naïve learning in social networks and the wisdom of crowds," *American Economic Journal: Microeconomics*, vol. 2, pp. 112–149, 2010.
- [134] A. Goyal, W. Lu, and L. V. Lakshmanan, "Simpath: An efficient algorithm for influence maximization under the linear threshold model," in *2011 IEEE 11th international conference on data mining*. IEEE, 2011, pp. 211–220.
- [135] C. Li, J. Luo, J. Z. Huang, and J. Fan, "Multi-layer network for influence propagation over microblog," in *Intelligence and Security Informatics: Pacific Asia Workshop, PAISI 2012, Kuala Lumpur, Malaysia, May 29, 2012. Proceedings*. Springer, 2012, pp. 60–72.
- [136] M. H. Alam, W.-J. Ryu, and S. Lee, "Hashtag-based topic evolution in social media," *World Wide Web*, vol. 20, pp. 1527–1549, 2017.
- [137] S. Louvigné, M. Uto, Y. Kato, and T. Ishii, "Social constructivist approach of motivation: social media messages recommendation system," *Behaviormetrika*, vol. 45, pp. 133–155, 2018.
- [138] J. Leskovec, L. A. Adamic, and B. A. Huberman, "The dynamics of viral marketing," *ACM Trans. Web*, vol. 1, no. 1, p. 5–es, may 2007. [Online]. Available: <https://doi.org/10.1145/1232722.1232727>
- [139] L. Q. C. E.-H. Chang B., Xu T., "Study on information diffusion analysis in social networks and its applications," *International Journal of Automation and Computing*, vol. 15, no. 4, pp. 377–401, 2018.

- [140] B. C. E. A. A. F. A.-P. S. Agrawal D., Bamieh B., “Data-driven modeling and analysis of online social networks,” in *Web-Age Information Management*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2011, pp. 3–17.
- [141] R. Toivonen, L. Kovanen, M. Kivelä, J.-P. Onnela, J. Saramäki, and K. Kaski, “A comparative study of social network models: Network evolution models and nodal attribute models,” *Social Networks*, vol. 31, no. 4, pp. 240–254, 2009. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0378873309000331>
- [142] D. Yogish, T. N. Manjunath, and R. S. Hegadi, “Review on natural language processing trends and techniques using nltk,” in *Recent Trends in Image Processing and Pattern Recognition*, K. C. Santosh and R. S. Hegadi, Eds. Singapore: Springer Singapore, 2019, pp. 589–606.
- [143] S. Finlay, *Text Mining and Social Network Analysis*. London: Palgrave Macmillan UK, 2014, pp. 179–193. [Online]. Available: https://doi.org/10.1057/9781137379283_9
- [144] X. Li, C. Wu, and F. Mai, “The effect of online reviews on product sales: A joint sentiment-topic analysis,” *Information Management*, vol. 56, no. 2, pp. 172–184, 2019, social Commerce and Social Media: Behaviors in the New Service Economy. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0378720617304597>
- [145] J. Kim, S. Hur, E. Lee, S. Lee, and J. Kim, “Nlp-fast: A fast, scalable, and flexible system to accelerate large-scale heterogeneous nlp models,” in *2021 30th International Conference on Parallel Architectures and Compilation Techniques (PACT)*, 2021, pp. 75–89.
- [146] V. Kocaman and D. Talby, “Spark nlp: Natural language understanding at scale,” *Software Impacts*, vol. 8, p. 100058,

2021. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2665963821000063>

- [147] M. Khan and A. Malviya, “Big data approach for sentiment analysis of twitter data using hadoop framework and deep learning,” in *2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE)*, 2020, pp. 1–5.
- [148] M. Fowler, “What do you mean by ”event-driven“?” <https://martinfowler.com/articles/201701-event-driven.html>, 2021.
- [149] N. Raičić and M. Savić, “Architecting continuous integration and continuous deployment for microservice architecture,” in *2021 20th International Symposium INFOTEH-JAHORINA (INFOTEH)*, 2021, pp. 1–5.
- [150] G. Hohpe and B. Woolf, *Enterprise Integration Patterns: Designing, Building, and Deploying Messaging Solutions*. USA: Addison-Wesley Longman Publishing Co., Inc., 2003.
- [151] —, *Enterprise integration patterns: Designing, building, and deploying messaging solutions*. Addison-Wesley Professional, 2020.
- [152] J. Woo and H. Chen, “An event-driven sir model for topic diffusion in web forums,” in *2012 IEEE International Conference on Intelligence and Security Informatics*, 2012, pp. 108–113.
- [153] V. Desai, “Building an event-driven solution for social media data ingestion: A high-level architecture,” *Medium*, May 2021. [Online]. Available: <https://medium.com/@vedantdesai942000/building-an-event-driven-solution-for-social-media-data-ingestion-a-high-level>
- [154] M. A. Shiekh, K. Sharma, and A. H. Ganai, “Information diffusion: Survey to models and approaches, a way to capture online social networks,” in *Intelligent Data Communication Technologies and Internet of Things*, D. J. Hemanth, S. Shakya, and Z. Baig, Eds. Cham: Springer International Publishing, 2020, pp. 25–32.

- [155] R. Kohavi, "A study of cross-validation and bootstrap for accuracy estimation and model selection," in *Proceedings of the 14th international joint conference on artificial intelligence*. Morgan Kaufmann Publishers Inc., 1995, pp. 1137–1143.
- [156] T. Fawcett, "An introduction to roc analysis," *Pattern Recognition Letters*, vol. 27, no. 8, pp. 861–874, 2006.
- [157] J. Davis and M. Goadrich, "The relationship between precision-recall and roc curves," in *Proceedings of the 23rd international conference on Machine learning*. ACM, 2006, pp. 233–240.
- [158] D. M. Powers, "Evaluation: from precision, recall and f-measure to roc, informedness, markedness and correlation," *Journal of Machine Learning Technologies*, vol. 2, no. 1, pp. 37–63, 2020.
- [159] . W. T. Reis L., Maier C., "Mixed-methods in information systems research: Status quo, core concepts, and future research implications." *Communications of the Association for Information Systems*, 2022, pp. 51–52.
- [160] J. W. Creswell and V. L. Plano Clark, *Designing and conducting mixed methods research*. Sage publications, 2017.
- [161] S. A. Kumar P., "Information diffusion modeling and analysis for socially interacting networks," *Social Network Analysis and Mining*, vol. 11, no. 1, 2021.
- [162] X.-S. Si, W. Wang, C.-H. Hu, and D.-H. Zhou, "Remaining useful life estimation – a review on the statistical data driven approaches," *European Journal of Operational Research*, vol. 213, no. 1, pp. 1–14, 2011. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0377221710007903>
- [163] D. L. Hansen, B. Shneiderman, and M. A. Smith, "Analyzing social media networks with nodexl: Insights from a connected world," *Morgan Kaufmann*, 2010.

- [164] M. Bastian, S. Heymann, and M. Jacomy, "Gephi: An open source software for exploring and manipulating networks," in *International AAAI Conference on Weblogs and Social Media*, 2009.
- [165] A. Gruzd, B. Wellman, and Y. Takhteyev, "Imagining twitter as an imagined community," *American Behavioral Scientist*, vol. 55, no. 10, pp. 1294–1318, 2011.
- [166] S. M. G. M. Kumar, S., "Modeling information diffusion in on- line social networks using a modified forest-fire model," *Journal of Intelligent Information Systems*, vol. 56, no. 2, pp. 355–377, 2021.
- [167] F. Li and N. Lin, "Social network analysis of information diffusion on sina weibo micro-blog system," in *2015 6th IEEE International Conference on Software Engineering and Service Science (ICSESS)*, 2015, pp. 233–236.
- [168] L. Birt, S. Scott, D. Cavers, C. Campbell, and F. Walter, "Member checking: A tool to enhance trustworthiness or merely a nod to validation?" *Qualitative Health Research*, vol. 26, no. 13, pp. 1802– 1811, 2016.
- [169] K. Krippendorff, *Content analysis: An introduction to its methodol- ogy*. Sage publications, 2013.
- [170] K. A. Neuendorf, *The content analysis guidebook*. Sage publica- tions, 2016.
- [171] D. Susser, "Ethical considerations for digitally targeted public health interventions," *American Journal of Public Health*, vol. 110, no. S3, pp. S290–S291, 2020, PMID: 33001734. [Online].
Available: <https://doi.org/10.2105/AJPH.2020.305758>
- [172] K. Rodham and J. Gavin, "The ethics of using the internet to collect qualitative research data," *Research Ethics*, vol. 2, no. 3, pp. 92–97, 2006. [Online]. Available: <https://doi.org/10.1177/174701610600200303>

- [173] H. T. Shen, *Principal Component Analysis*. Boston, MA: Springer US, 2009, pp. 2136–2136. [Online]. Available: https://doi.org/10.1007/978-0-387-39940-9_540
- [174] S. Choi, *Independent Component Analysis*. Boston, MA: Springer US, 2009, pp. 735–741. [Online]. Available: https://doi.org/10.1007/978-0-387-73003-5_305
- [175] *What is Independent Component Analysis?* John Wiley Sons, Ltd, 2001, ch. 7, pp. 145–164. [Online]. Available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/0471221317.ch7>
- [176] A. Tharwat, T. Gaber, A. Ibrahim, and A. E. Hassanien, “Linear discriminant analysis: A detailed tutorial,” *AI Commun.*, vol. 30, no. 2, p. 169–190, jan 2017. [Online]. Available: <https://doi.org/10.3233/AIC-170729>
- [177] B. Ghogh, M. Crowley, F. Karray, and A. Ghodsi, *Locally Linear Embedding*. Cham: Springer International Publishing, 2023, pp. 207–247. [Online]. Available: https://doi.org/10.1007/978-3-031-10602-6_8
- [178] Z. Xie, W. Zhang, H. Ding, and L. Ma, “Msfnet: Multi-scale feature-crossing attention network for multi-field sparse data,” in *Advances in Knowledge Discovery and Data Mining*, H. W. Lauw, R. C.-W. Wong, A. Ntoulas, E.-P. Lim, S.-K. Ng, and S. J. Pan, Eds. Cham: Springer International Publishing, 2020, pp. 142–154.
- [179] B. A. Eclarin, A. C. Fajardo, and R. P. Medina, “Enhanced hash algorithm using a two-dimensional vector to improve data search performance,” in *Intelligent and Interactive Computing*, V. Piuri, V. E. Balas, S. Borah, and S. S. Syed Ahmad, Eds. Singapore: Springer Singapore, 2019, pp. 59–69.
- [180] D. S. Asudani, N. K. Nagwani, and P. Singh, “Impact of word embedding models on text analytics in deep learning environment: a review,” *Artificial Intelligence Review*, vol. 56,

no. 9, pp. 10 345–10 425, Sep 2023. [Online]. Available:
<https://doi.org/10.1007/s10462-023-10419-1>