

DAFTAR PUSTAKA

- Abdullah, H.M., Zeki, A.M., 2014. Frontend and Backend Web Technologies in Social Networking Sites: Facebook as an Example, in: 2014 3rd International Conference on Advanced Computer Science Applications and Technologies. Presented at the 2014 3rd International Conference on Advanced Computer Science Applications and Technologies, pp. 85–89. <https://doi.org/10.1109/ACSAT.2014.22>
- Abirami, A.M., Gayathri, V., 2017. A survey on sentiment analysis methods and approach, in: 2016 Eighth International Conference on Advanced Computing (ICoAC). Presented at the 2016 Eighth International Conference on Advanced Computing (ICoAC), pp. 72–76. <https://doi.org/10.1109/ICoAC.2017.7951748>
- Acker, A., Kreisberg, A., 2020. Social media data archives in an API-driven world. Arch. Sci. 20, 105–123. <https://doi.org/10.1007/s10502-019-09325-9>
- Adekotujo, A., Odumabo, A., Ademola, A., Aiyeniko, O., 2020. A Comparative Study of Operating Systems: Case of Windows, UNIX, Linux, Mac, Android and iOS. Int. J. Comput. Appl. 176, 16–23. <https://doi.org/10.5120/ijca2020920494>
- Adinugroho, B., Prisanto, G.F., Irwansyah, I., Ernungtyas, N.F., 2019. Media Sosial dan Internet Dalam Keterlibatan Informasi Politik dan Pemilihan Umum. epresentamen 5. <https://doi.org/10.30996/representamen.v5i02.2943>
- Afra, D.I.N., Santosa, A., Fajri, R., Hidayati, N.N., Nurfadhilah, E., Pebiana, S., Aini, L.R., Prafitia, H.A., Sahreza, Y., Prihantoro, J., Gunarso, Latief, A.D., Uliniansyah, M.T., Riza, H., 2022. Developing Sentiment Analysis of Indonesian Social Media Based on Convolutional Neural Network for Smarter Society, in: 2022 International Conference on ICT for Smart Society (ICISS). Presented at the 2022 International Conference on ICT for Smart Society (ICISS), pp. 1–7. <https://doi.org/10.1109/ICISS55894.2022.9915148>
- Afrianto, I., Heryandi, A., Finadhita, A., Atin, S., 2021. User Acceptance Test For Digital Signature Application In Academic Domain To Support The Covid-19 Work From Home Program 5.
- Agarwal, B., Mittal, N., Bansal, P., Garg, S., 2015. Sentiment analysis using common-sense and context information. Comput. Intell. Neurosci. 2015, 30:30. <https://doi.org/10.1155/2015/715730>
- Aggarwal, C.C., Zhai, C. (Eds.), 2012. A Survey of Text Classification Algorithms, in: Mining Text Data. Springer US, Boston, MA. <https://doi.org/10.1007/978-1-4614-3223-4>

- Ahmed, F., Ghafir, S., 2019. Linear Support Vector Machine (SVM) with Stochastic Gradient Descent (SGD) training & multinomial Naïve Bayes (NB) in News Classification 7, 360–363.
- Ahmed, W., Bath, P.A., Demartini, G., 2017. Using Twitter as a Data Source: An Overview of Ethical, Legal, and Methodological Challenges, in: Woodfield, K. (Ed.), *The Ethics of Online Research, Advances in Research Ethics and Integrity*. Emerald Publishing Limited, pp. 79–107. <https://doi.org/10.1108/S2398-601820180000002004>
- Alkaff, M., Rizky Baskara, A., Hendro Wicaksono, Y., 2020. Sentiment Analysis of Indonesian Movie Trailer on YouTube Using Delta TF-IDF and SVM, in: 2020 Fifth International Conference on Informatics and Computing (ICIC). Presented at the 2020 Fifth International Conference on Informatics and Computing (ICIC), IEEE, Gorontalo, Indonesia, pp. 1–5. <https://doi.org/10.1109/ICIC50835.2020.9288579>
- Altinors, A., Yol, F., Yaman, O., 2021. A sound based method for fault detection with statistical feature extraction in UAV motors. *Appl. Acoust.* 183, 108325. <https://doi.org/10.1016/j.apacoust.2021.108325>
- Andonie, R., 2019. Hyperparameter optimization in learning systems. *J. Membr. Comput.* 1, 279–291. <https://doi.org/10.1007/s41965-019-00023-0>
- Apriani, M., 2019. Pembingkatan Berita Isu Pelemahan Rupiah Menjelang Pemilihan Presiden 2019 Pada Media Online. *J. Dakwah Tabligh* 20, 164–183. <https://doi.org/10.24252/jdt.v20i1.9610>
- Aziz, S., Khan, M.U., Ahmad Choudhry, Z., Aymin, A., Usman, A., 2019. ECG-based Biometric Authentication using Empirical Mode Decomposition and Support Vector Machines, in: 2019 IEEE 10th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON). Presented at the 2019 IEEE 10th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), pp. 0906–0912. <https://doi.org/10.1109/IEMCON.2019.8936174>
- Boeschoten, S., Catal, C., Tekinerdogan, B., Lommen, A., Blokland, M., 2023. The automation of the development of classification models and improvement of model quality using feature engineering techniques. *Expert Syst. Appl.* 213, 118912. <https://doi.org/10.1016/j.eswa.2022.118912>
- Boswell, D., 2002. Introduction to support vector machines. *Departement Comput. Sci. Eng. Univ. Calif. San Diego* 11.
- Boyd, D.M., Ellison, N.B., 2007. Social Network Sites: Definition, History, and Scholarship. *J. Comput.-Mediat. Commun.* 13, 210–230. <https://doi.org/10.1111/j.1083-6101.2007.00393.x>

- Bruns, A., 2013. Faster than the speed of print: Reconciling ‘big data’ social media analysis and academic scholarship. First Monday. <https://doi.org/10.5210/fm.v18i10.4879>
- Cahyanti, F.E., Adiwijaya, Faraby, S.A., 2020. On The Feature Extraction For Sentiment Analysis of Movie Reviews Based on SVM, in: 2020 8th International Conference on Information and Communication Technology (ICoICT). Presented at the 2020 8th International Conference on Information and Communication Technology (ICoICT), IEEE, Yogyakarta, Indonesia, pp. 1–5. <https://doi.org/10.1109/ICoICT49345.2020.9166397>
- Chandra, A., 2019. Comparison of Feature Selection for Imbalance Text Datasets, in: 2019 International Conference on Information Management and Technology (ICIMTech). Presented at the 2019 International Conference on Information Management and Technology (ICIMTech), pp. 68–72. <https://doi.org/10.1109/ICIMTech.2019.8843773>
- Chang, C.-C., Lin, C.-J., 2011. LIBSVM: A library for support vector machines. ACM Trans. Intell. Syst. Technol. 2, 1–27. <https://doi.org/10.1145/1961189.1961199>
- Dalimunthe, M.A., Lubis, F.A., 2019. Internet Sebagai Media Interaktif Disalahgunakan Oleh Elit Politik. *Komunikologi J. Pengemb. Ilmu Komun. Dan Sos.* 3, 122. <https://doi.org/10.30829/komunikologi.v3i2.6378>
- Deori, M., Kumar, V., Verma, M.K., 2021. Analysis of YouTube video contents on Koha and DSpace, and sentiment analysis of viewers’ comments. *Libr. Hi Tech ahead-of-print*. <https://doi.org/10.1108/LHT-12-2020-0323>
- Dewi, L.C., Meiliana, Chandra, A., 2019. Social Media Web Scraping using Social Media Developers API and Regex. *Procedia Comput. Sci., The 4th International Conference on Computer Science and Computational Intelligence (ICCSCI 2019): Enabling Collaboration to Escalate Impact of Research Results for Society* 157, 444–449. <https://doi.org/10.1016/j.procs.2019.08.237>
- Diouf, R., Sarr, E.N., Sall, O., Birregah, B., Bousso, M., Mbaye, S.N., 2019. Web Scraping: State-of-the-Art and Areas of Application, in: 2019 IEEE International Conference on Big Data (Big Data). Presented at the 2019 IEEE International Conference on Big Data (Big Data), pp. 6040–6042. <https://doi.org/10.1109/BigData47090.2019.9005594>
- Dzisevic, R., Sesok, D., 2019. Text Classification using Different Feature Extraction Approaches, in: 2019 Open Conference of Electrical, Electronic and Information Sciences (EStream). Presented at the 2019 Open Conference of Electrical, Electronic and Information Sciences (eStream), IEEE, Vilnius, Lithuania, pp. 1–4. <https://doi.org/10.1109/eStream.2019.8732167>
- Firmansyah, F., Zulfikar, W.B., Maylawati, D.S., Arianti, N.D., Muliawaty, L., Septiadi, M.A., Ramdhani, M.A., 2020. Comparing Sentiment Analysis of Indonesian Presidential Election 2019 with Support Vector Machine and K-Nearest Neighbor Algorithm, in:

- 2020 6th International Conference on Computing Engineering and Design (ICCED). Presented at the 2020 6th International Conference on Computing Engineering and Design (ICCED), IEEE, Sukabumi, Indonesia, pp. 1–6. <https://doi.org/10.1109/ICCED51276.2020.9415767>
- Friedrichs, F., Igel, C., 2005. Evolutionary tuning of multiple SVM parameters. *Neurocomputing, Trends in Neurocomputing: 12th European Symposium on Artificial Neural Networks 2004* 64, 107–117. <https://doi.org/10.1016/j.neucom.2004.11.022>
- Glez-Peña, D., Lourenço, A., López-Fernández, H., Reboiro-Jato, M., Fdez-Riverola, F., 2014. Web scraping technologies in an API world. *Brief. Bioinform.* 15, 788–797. <https://doi.org/10.1093/bib/bbt026>
- Gong, Y., Gu, F., Chen, K., Wang, F., 2020. The Architecture of Micro-services and the Separation of Front-end and Back-end Applied in a Campus Information System, in: 2020 IEEE International Conference on Advances in Electrical Engineering and Computer Applications(AEECA). Presented at the 2020 IEEE International Conference on Advances in Electrical Engineering and Computer Applications(AEECA), pp. 321–324. <https://doi.org/10.1109/AEECA49918.2020.9213662>
- Hadwan, M., Al-Sarem, M., Saeed, F., Al-Hagery, M.A., 2022. An Improved Sentiment Classification Approach for Measuring User Satisfaction toward Governmental Services' Mobile Apps Using Machine Learning Methods with Feature Engineering and SMOTE Technique. *Appl. Sci.* 12, 5547. <https://doi.org/10.3390/app12115547>
- Haliim, W., 2016. Demokrasi Deliberatif Indonesia: Konsep Partisipasi Masyarakat Dalam Membentuk Demokrasi dan Hukum yang Responsif. *Masy. Indones.* 42, 19–30. <https://doi.org/10.14203/jmi.v42i1.556>
- Han, J., Kamber, M., 2012. *Data mining: concepts and techniques*, 3rd ed. ed. Elsevier, Burlington, MA.
- Hannak, A., Anderson, E., Barrett, L.F., Lehmann, S., Mislove, A., Riedewald, M., 2012. Tweetin' in the Rain: Exploring Societal-Scale Effects of Weather on Mood. *Proc. Int. AAAI Conf. Web Soc. Media* 6, 479–482. <https://doi.org/10.1609/icwsm.v6i1.14322>
- Hao, J., Ho, T.K., 2019. Machine Learning Made Easy: A Review of Scikit-learn Package in Python Programming Language. *J. Educ. Behav. Stat.* 44, 348–361. <https://doi.org/10.3102/1076998619832248>
- Himelboim, I., Lariscy, R.W., Tinkham, S.F., Sweetser, K.D., 2012. Social Media and Online Political Communication: The Role of Interpersonal Informational Trust and Openness. *J. Broadcast. Electron. Media* 56, 92–115. <https://doi.org/10.1080/08838151.2011.648682>

- Hsu, C.-W., Lin, C.-J., 2002. A comparison of methods for multiclass support vector machines. *IEEE Trans. Neural Netw.* 13, 415–425. <https://doi.org/10.1109/72.991427>
- Hu, X., Liu, H., 2012. Text Analytics in Social Media, in: Aggarwal, C.C., Zhai, C. (Eds.), *Mining Text Data*. Springer US, Boston, MA. <https://doi.org/10.1007/978-1-4614-3223-4>
- Isnain, A.R., Sakti, A.I., Alita, D., Marga, N.S., 2021. Sentimen Analisis Publik Terhadap Kebijakan Lockdown Pemerintah Jakarta Menggunakan Algoritma SVM. *J. Data Min. Dan Sist. Inf.* 2, 31–37. <https://doi.org/10.33365/jdmsi.v2i1.1021>
- Jayadianti, H., Kaswidjanti, W., Utomo, A.T., Saifullah, S., Dwiyanto, A., Drezewski, R., 2022. Sentiment analysis of Indonesian reviews using fine-tuning IndoBERT and R-CNN 14.
- Jiang, Z., Scheibe, K.P., Nilakanta, S., Qu, X. (Shawn), 2017. The Economics of Public Beta Testing. *Decis. Sci.* 48, 150–175. <https://doi.org/10.1111/deci.12221>
- Kalra, V., Agrawal, R., 2018. Importance of Text Data Preprocessing & Implementation in RapidMiner. p. 75. <https://doi.org/10.15439/2018KM46>
- Khoo, C.S., Johnkhan, S.B., 2018. Lexicon-based sentiment analysis: Comparative evaluation of six sentiment lexicons. *J. Inf. Sci.* 44, 491–511. <https://doi.org/10.1177/0165551517703514>
- Knerr, S., Personnaz, L., Dreyfus, G., 1990. Single-layer learning revisited: A stepwise procedure for building and training a neural network. *Neurocomputing Algorithms Archit. Appl.* 1. https://doi.org/10.1007/978-3-642-76153-9_5
- Kocoń, J., Gruza, M., Bielaniewicz, J., Grimling, D., Kanclerz, K., Miłkowski, P., Kazienko, P., 2021. Learning Personal Human Biases and Representations for Subjective Tasks in Natural Language Processing, in: 2021 IEEE International Conference on Data Mining (ICDM). Presented at the 2021 IEEE International Conference on Data Mining (ICDM), pp. 1168–1173. <https://doi.org/10.1109/ICDM51629.2021.00140>
- Kornienko, D.V., Mishina, S.V., Melnikov, M.O., 2021. The Single Page Application architecture when developing secure Web services. *J. Phys. Conf. Ser.* 2091, 012065. <https://doi.org/10.1088/1742-6596/2091/1/012065>
- Kreiss, D., McGregor, S.C., 2018. Technology Firms Shape Political Communication: The Work of Microsoft, Facebook, Twitter, and Google With Campaigns During the 2016 U.S. Presidential Cycle. *Polit. Commun.* 35, 155–177. <https://doi.org/10.1080/10584609.2017.1364814>
- Lei, Y., Wu, Z., 2020. Time series classification based on statistical features. *EURASIP J. Wirel. Commun. Netw.* 2020, 46. <https://doi.org/10.1186/s13638-020-1661-4>

- Leung, H.K.N., Wong, P.W.L., 1997. A study of user acceptance tests. *Softw. Qual. J.* 6, 137–149. <https://doi.org/10.1023/A:1018503800709>
- Liashchynskiy, Petro, Liashchynskiy, Pavlo, 2019. Grid Search, Random Search, Genetic Algorithm: A Big Comparison for NAS. <https://doi.org/10.48550/arXiv.1912.06059>
- Liu, B., Zhang, L., 2012. A SURVEY OF OPINION MINING AND SENTIMENT ANALYSIS, in: Aggarwal, C.C., Zhai, C. (Eds.), *Mining Text Data*. Springer US, Boston, MA, p. 415. <https://doi.org/10.1007/978-1-4614-3223-4>
- Liu, J., Zio, E., 2017. SVM hyperparameters tuning for recursive multi-step-ahead prediction. *Neural Comput. Appl.* 28, 3749–3763. <https://doi.org/10.1007/s00521-016-2272-1>
- Liu, Y., Bi, J.-W., Fan, Z.-P., 2017. A method for multi-class sentiment classification based on an improved one-vs-one (OVO) strategy and the support vector machine (SVM) algorithm. *Inf. Sci.* 394–395, 38–52. <https://doi.org/10.1016/j.ins.2017.02.016>
- Malik, A., Burney, A., Ahmed, F., 2020. A Comparative Study of Unstructured Data with SQL and NO-SQL Database Management Systems. *J. Comput. Commun.* 8, 59–71. <https://doi.org/10.4236/jcc.2020.84005>
- Martínez-Plumed, F., Contreras-Ochando, L., Ferri, C., Hernández-Orallo, J., Kull, M., Lachiche, N., Ramírez-Quintana, M.J., Flach, P., 2021. CRISP-DM Twenty Years Later: From Data Mining Processes to Data Science Trajectories. *IEEE Trans. Knowl. Data Eng.* 33, 3048–3061. <https://doi.org/10.1109/TKDE.2019.2962680>
- Mercha, E.M., Benbrahim, H., 2023. Machine learning and deep learning for sentiment analysis across languages: A survey. *Neurocomputing* 531, 195–216. <https://doi.org/10.1016/j.neucom.2023.02.015>
- Miceli, M., Schuessler, M., Yang, T., 2020. Between Subjectivity and Imposition: Power Dynamics in Data Annotation for Computer Vision. *Proc. ACM Hum.-Comput. Interact.* 4, 115:1–115:25. <https://doi.org/10.1145/3415186>
- Miller, D., Costa, E., Haynes, N., McDonald, T., 2016. *How the world changed social media*. UCL Press, London.
- Mitchell, T.M., 2006. *The discipline of machine learning*. Carnegie Mellon University, School of Computer Science, Machine Learning
- Munzert, S., Rubba, C., Meißner, P., Nyhuis, D., 2014. SQL and Relational Databases, in: *Automated Data Collection with R*. John Wiley & Sons, Ltd, Chichester, UK, pp. 164–195. <https://doi.org/10.1002/9781118834732.ch7>
- Murthy, D., 2011. Twitter: Microphone for the masses? *Media Cult. Soc.* 33, 779–789. <https://doi.org/10.1177/0163443711404744>

- Najib, A.C., Irsyad, A., Qandi, G.A., Rakhmawati, N.A., 2019. Perbandingan Metode Lexicon-based dan SVM untuk Analisis Sentimen Berbasis Ontologi pada Kampanye Pilpres Indonesia Tahun 2019 di Twitter. *Fountain Inform. J.* 4, 41. <https://doi.org/10.21111/fij.v4i2.3573>
- Naradhipa, A.R., Purwarianti, A., 2012. Sentiment classification for Indonesian message in social media, in: 2012 International Conference on Cloud Computing and Social Networking (ICCCSN). Presented at the 2012 International Conference on Cloud Computing and Social Networking (ICCCSN), pp. 1–5. <https://doi.org/10.1109/ICCCSN.2012.6215730>
- Nguyen, H., Veluchamy, A., Diop, M., Iqbal, R., 2018. Comparative Study of Sentiment Analysis with Product Reviews Using Machine Learning and Lexicon-Based Approaches 1.
- Olabanjo, Olusola, Wusu, A., Afisi, O., Asokere, M., Padonu, R., Olabanjo, Olufemi, Ojo, O., Folorunso, O., Aribisala, B., Mazzara, M., 2023. From Twitter to Aso-Rock: A sentiment analysis framework for understanding Nigeria 2023 presidential election. *Heliyon* 9, e16085. <https://doi.org/10.1016/j.heliyon.2023.e16085>
- Pan, W., Zhong, E., Yang, Q., 2012. Transfer Learning for Text Mining, in: Aggarwal, C.C., Zhai, C. (Eds.), *Mining Text Data*. Springer US, Boston, MA. <https://doi.org/10.1007/978-1-4614-3223-4>
- Perangin-angin, L.L.K., Zainal, M., 2018. Partisipasi Politik Pemilih Pemula Dalam Bingkai Jejaring Sosial di Media Sosial. *J. ASPIKOM* 3, 737–754. <https://doi.org/10.24329/aspikom.v3i4.210>
- Persily, N., Tucker, J.A. (Eds.), 2020. *Social Media and Democracy: The State of the Field, Prospects for Reform*, 1st ed. Cambridge University Press. <https://doi.org/10.1017/9781108890960>
- Prabowo, R., Thelwall, M., 2009. Sentiment analysis: A combined approach. *J. Informetr.* 3, 143–157. <https://doi.org/10.1016/j.joi.2009.01.003>
- Pradha, S., Halgamuge, M.N., Tran Quoc Vinh, N., 2019. Effective Text Data Preprocessing Technique for Sentiment Analysis in Social Media Data, in: 2019 11th International Conference on Knowledge and Systems Engineering (KSE). Presented at the 2019 11th International Conference on Knowledge and Systems Engineering (KSE), pp. 1–8. <https://doi.org/10.1109/KSE.2019.8919368>
- Pravina, A.M., Cholissodin, I., Adikara, P.P., 2019. Analisis Sentimen Tentang Opini Maskapai Penerbangan pada Dokumen Twitter Menggunakan Algoritme Support Vector Machine (SVM) 3.

- Purwarianti, A., Crisdayanti, I.A.P.A., 2019. Improving Bi-LSTM Performance for Indonesian Sentiment Analysis Using Paragraph Vector, in: 2019 International Conference of Advanced Informatics: Concepts, Theory and Applications (ICAICTA). Presented at the 2019 International Conference of Advanced Informatics: Concepts, Theory and Applications (ICAICTA), IEEE, Yogyakarta, Indonesia, pp. 1–5. <https://doi.org/10.1109/ICAICTA.2019.8904199>
- Rahadi, D.R., 2014. PENGUKURAN USABILITY SISTEM MENGGUNAKAN USE QUESTIONNAIRE PADA APLIKASI ANDROID. JSI J. Sist. Inf. E-J. 6. <https://doi.org/10.36706/jsi.v6i1.772>
- Rani, T.U., Priyanka, C.S., Monica, B.S.S., 2019. A dynamic data classification techniques and tools for big data. J. Phys. Conf. Ser. 1228, 012043. <https://doi.org/10.1088/1742-6596/1228/1/012043>
- Ray, S.K., Susan, S., 2022. Performance Evaluation using Online Machine Learning Packages for Streaming Data, in: 2022 International Conference on Computer Communication and Informatics (ICCCI). Presented at the 2022 International Conference on Computer Communication and Informatics (ICCCI), pp. 1–6. <https://doi.org/10.1109/ICCCI54379.2022.9741068>
- Richardson, L., Ruby, S., 2011. RESTful web services. O'Reilly, Farnham.
- Riyadi, S., Jaenudin, Marrifatul Azizah, L., Damarjati, C., Khristanto Hariadi, T., 2018. Evaluation of Mangosteen Surface Quality using Discrete Curvelet Transform, in: 2018 International Conference on Information and Communication Technology Convergence (ICTC). Presented at the 2018 International Conference on Information and Communication Technology Convergence (ICTC), IEEE, Jeju, pp. 475–479. <https://doi.org/10.1109/ICTC.2018.8539577>
- Robertson, S., 2004. Understanding inverse document frequency: on theoretical arguments for IDF. J. Doc. 60, 503–520. <https://doi.org/10.1108/00220410410560582>
- Roh, Y., Heo, G., Whang, S.E., 2021. A Survey on Data Collection for Machine Learning: A Big Data - AI Integration Perspective. IEEE Trans. Knowl. Data Eng. 33, 1328–1347. <https://doi.org/10.1109/TKDE.2019.2946162>
- Salsabila, N.A., Ardhito Winatmoko, Y., Akbar Septiandri, A., Jamal, A., 2018. Colloquial Indonesian Lexicon, in: 2018 International Conference on Asian Language Processing (IALP). Presented at the 2018 International Conference on Asian Language Processing (IALP), IEEE, Bandung, Indonesia, pp. 226–229. <https://doi.org/10.1109/IALP.2018.8629151>
- Saputra, I., Kristiyanti, D.A., 2022. Machine Learning untuk Pemula. Penerbit INFORMATIKA, Bandung, Indonesia.

- Saputra, R.A., Harjito, D.A., 2015. Hubungan Kausalitas Antara Nilai Tukar dengan Harga Saham dan Inflasi di Indonesia. *J. Manaj. Dan Bisnis Indones.* 3, 46–60. <https://doi.org/10.31843/jmbi.v3i1.70>
- Satria, D., Mushthofa, M., 2013. Perbandingan Metode Ekstraksi Ciri Histogram dan PCA untuk Mendeteksi Stoma pada Citra Penampang Daun Freycinetia. *J. Ilmu Komput. Dan Agri-Inform.* 2, 20–28. <https://doi.org/10.29244/jika.2.1.20-28>
- Saud, M., Ida, R., Abbas, A., Ashfaq, A., Ahmad, A.R., 2020. The Social Media and Digitalization of Political Participation in Youths: An Indonesian Perspective. *Society* 8, 83–93. <https://doi.org/10.33019/society.v8i1.160>
- Schröer, C., Kruse, F., Gómez, J.M., 2021. A Systematic Literature Review on Applying CRISP-DM Process Model. *Procedia Comput. Sci., CENTERIS 2020 - International Conference on ENTERprise Information Systems / ProjMAN 2020 - International Conference on Project MANagement / HCist 2020 - International Conference on Health and Social Care Information Systems and Technologies 2020, CENTERIS/ProjMAN/HCist 2020* 181, 526–534. <https://doi.org/10.1016/j.procs.2021.01.199>
- Sheydaei, N., Saraee, M., Shahgholian, A., 2015. A novel feature selection method for text classification using association rules and clustering. *J. Inf. Sci.* 41, 3–15. <https://doi.org/10.1177/0165551514550143>
- Silva Rodrigues, E. da, Mayr Lima Martins, D., de Lima Neto, F.B., 2021. Automatic Feature Engineering Using Self-Organizing Maps, in: 2021 IEEE Latin American Conference on Computational Intelligence (LA-CCI). Presented at the 2021 IEEE Latin American Conference on Computational Intelligence (LA-CCI), pp. 1–6. <https://doi.org/10.1109/LA-CCI48322.2021.9769788>
- Sitepu, M.B., Munthe, I.R., Harahap, S.Z., 2022. Implementation of Support Vector Machine algorithm for Shopee Customer Sentiment Analysis. *Sink. J. Dan Penelit. Tek. Inform.* 7, 619–627. <https://doi.org/10.33395/sinkron.v7i2.11408>
- Slovin, C., 2023. Twitter API change risks alienating developers [WWW Document]. URL <https://www.nbcnews.com/tech/tech-news/twitter-api-musk-developers-rcna69024> (diakses tanggal 3.8.23).
- Steinwart, I., Christmann, A., 2008. Kernels and Reproducing Kernel Hilbert Spaces, in: Support Vector Machines, Information Science and Statistics. Springer New York, New York, NY, pp. 110–163. https://doi.org/10.1007/978-0-387-77242-4_4
- Stevens, T.J., Boucher, W. (Eds.), 2015. Databases, in: Python Programming for Biology: Bioinformatics and Beyond. Cambridge University Press, Cambridge, pp. 401–420. <https://doi.org/10.1017/CBO9780511843556.021>

- Stieglitz, S., Dang-Xuan, L., 2013. Social media and political communication: a social media analytics framework. *Soc. Netw. Anal. Min.* 3, 1277–1291. <https://doi.org/10.1007/s13278-012-0079-3>
- Suandi, A., Khasanah, F.N., Retnoningsih, E., 2017. Pengujian Sistem Informasi E-commerce Usaha Gudang Cokelat Menggunakan Uji Alpha dan Beta. *Inf. Syst. Educ. Prof. J. Inf. Syst.* 2, 61–70.
- Sutoyo, E., Almaarif, A., 2020. Twitter sentiment analysis of the relocation of Indonesia's capital city. *Bull. Electr. Eng. Inform.* 9, 1620–1630. <https://doi.org/10.11591/eei.v9i4.2352>
- Syarif, I., Prugel-Bennett, A., Wills, G., 2016. SVM Parameter Optimization using Grid Search and Genetic Algorithm to Improve Classification Performance. *TELKOMNIKA Telecommun. Comput. Electron. Control* 14, 1502–1509. <https://doi.org/10.12928/telkomnika.v14i4.3956>
- Tan, J.Y., Chow Sai Kit, A., Tan, C.W., 2022. A Comparative Study of Machine Learning Algorithms for Sentiment Analysis of Game Reviews. *J. Inst. Eng. Malays.* 82. <https://doi.org/10.54552/v82i3.101>
- Taufiq, M.H.A., Hidayati, A., 2016. Rancang Bangun Aplikasi Biro Travel dengan SMS Gateway dan Google Maps API. *MULTINETICS* 2, 43–48. <https://doi.org/10.32722/multinetics.v2i1.1061>
- Thakor, P., Sasi, S., 2015. Ontology-based Sentiment Analysis Process for Social Media Content. *Procedia Comput. Sci.*, INNS Conference on Big Data 2015 Program San Francisco, CA, USA 8-10 August 2015 53, 199–207. <https://doi.org/10.1016/j.procs.2015.07.295>
- Townsend, L., Wallace, C., 2017. The Ethics of Using Social Media Data in Research: A New Framework, in: Woodfield, K. (Ed.), *The Ethics of Online Research, Advances in Research Ethics and Integrity*. Emerald Publishing Limited, pp. 189–207. <https://doi.org/10.1108/S2398-601820180000002008>
- Tulach, J., 2008. *Practical API Design*, IT Pro. Apress, Berkeley.
- Wang, H., Deng, S., 2017. A paper-text perspective: Studies on the influence of feature granularity for Chinese short-text-classification in the Big Data era. *Electron. Libr.* 35, 689–708. <https://doi.org/10.1108/EL-09-2016-0192>
- Wang, S., Manning, C., 2012. Baselines and Bigrams: Simple, Good Sentiment and Topic Classification, in: *Proceedings of the 50th Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers)*. Presented at the ACL 2012, Association for Computational Linguistics, Jeju Island, Korea, pp. 90–94.

- Watkins, J., Mills, S., 2010. Testing IT: An Off-the-Shelf Software Testing Process, 2nd ed. Cambridge University Press, Cambridge. <https://doi.org/10.1017/CBO9780511997310>
- Wijaya, Y., Karyawati, A.A.I.N.E., Dhiyo, K., 2020. The Effects of Different Kernels in SVM Sentiment Analysis on Mass Social Distancing. JELIKU J. Elektron. Ilmu Komput. Udayana 9, 161. <https://doi.org/10.24843/JLK.2020.v09.i02.p01>
- Wilie, B., Vincentio, K., Winata, G.I., Cahyawijaya, S., Li, X., Lim, Z.Y., Soleman, S., Mahendra, R., Fung, P., Bahar, S., Purwarianti, A., 2020. IndoNLU: Benchmark and Resources for Evaluating Indonesian Natural Language Understanding.
- Williams, M.L., Burnap, P., Sloan, L., Jessop, C., Lepps, H., 2017. Users' Views of Ethics in Social Media Research: Informed Consent, Anonymity, and Harm, in: Woodfield, K. (Ed.), The Ethics of Online Research, Advances in Research Ethics and Integrity. Emerald Publishing Limited, pp. 27–52. <https://doi.org/10.1108/S2398-601820180000002002>
- Winarno, H.A., Soesanti, I., Nugroho, H.A., Rahmawati, T., 2019. Classification of Palm Gesture Pattern by Using Statistical Features, in: 2019 International Conference on Information and Communications Technology (ICOIACT). Presented at the 2019 International Conference on Information and Communications Technology (ICOIACT), IEEE, Yogyakarta, Indonesia, pp. 135–138. <https://doi.org/10.1109/ICOIACT46704.2019.8938590>
- Xu, Q.A., Chang, V., Jayne, C., 2022. A systematic review of social media-based sentiment analysis: Emerging trends and challenges. Decis. Anal. J. 3, 100073. <https://doi.org/10.1016/j.dajour.2022.100073>
- Zamtinah, Supriyadi, E., Soeharto, 2020. Functional test of the online Recognition of Work Experience and Learning Outcome System using black box testing. J. Phys. Conf. Ser. 1446, 012060. <https://doi.org/10.1088/1742-6596/1446/1/012060>
- Zhong, X., Zhang, L., Ban, H., 2023. Deep reinforcement learning for class imbalance fault diagnosis of equipment in nuclear power plants. Ann. Nucl. Energy 184, 109685. <https://doi.org/10.1016/j.anucene.2023.109685>
- Zuhro, R.S., 2010. Budaya Politik dan Demokrasi [WWW Document]. LIPI. URL <http://lipi.go.id/berita/single/Budaya-Politik-dan-Demokrasi/5332> (diakses tanggal 3.12.23).