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Survey of Progressive Era of Text Summarization for Indian and Foreign Languages Using Natural Language Processing

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Innovative Data Communication Technologies and Application

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Abstract

The last few years of Data Science definitely show the upward trend in growth of popularity, different industries which are effectively relating with data science & the transformation of world with e-commerce sites, social networking sites, travel aggregators, Google assistants. Here the need of text summarization comes in existence. This text summarization is a conception which actually deals with time saving and giving user the output with minimum text without changing its meaning. This approach is very impressive as the e-contents reading is very important aspect in many fields like academics, industries, hospitals, clinical notes, news papers, crime records, cyber security and many other. This paper shows the advancements which has initiated research for text summarization in many global and local languages. Text mining is coping up with many dimensions like text summarization, question generation, sentiment analysis, and translators. Natural Language Processing is one of the demanding areas now a day, which will definitely improve the human machine interaction.

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References

1. Azmia, A.M., Al-Thanyyan, S.: A text summarizer for Arabic. Comput. Speech Lang. **26**(4), 260–273 (2012)

Article **Google Scholar**

2. AlSaleh, A.B., Menai, M.E.B.: Automatic Arabic text summarization a survey. Artif. Intell. Rev. **45**(2), 1–32 (2015)

Google Scholar

3. El-Shishtawy, T., El-Ghannam, F.: Keyphrase based Arabic Summarizer(KPAS). In: International Conference on Informatics & Systems (INFOS). IEEE (2012)

Google Scholar

4. Ravindra, G., Balakrishnan, N.: Multi-document automatic text summarization using entropy estimates, pp. 289–300. Springer, Heidelberg (2004)

Google Scholar

5. Gupta, V., Lehal, G.S.: Automatic text summarization system for Punjabi language. J. Emerg. Technol. Web Intell. **5**(3), 257–271 (2013)

Google Scholar

6. Gupta, V.: Hybrid algorithm for multilingual summarization of Hindi & Punjabi documents, pp. 717–727. Springer, Cham (2013)

Google Scholar

7. Gustavsson, P.A.: Text summarization using random indexing & pagerank. In: Proceeding of the 3rd Swedish Language Technology Conference (SLTC-2010). Sweden: SLTC (2010)

Google Scholar

8. Shahverdian, H., Saneifar, H.: Text summarization of multi-aspect comments in social networks in Persian Language. (IJACSA) Int. J. Adv. Comput. Sci. Appl. **8**(12), 362–368 (2017)

Google Scholar

9. Kallimani, J.S., Srinivasa, K. G.: Information retrieval by text summarization for an Indian regional language. In: International Conference on Natural Language Processing & Knowledge Engineering, pp. 1–4 (2010)

Google Scholar

10. Piskorski, J., Roman Y.: Information Extraction: Past, Present & Future, pp. 23–49. Springer, Heidelberg (2013)

Google Scholar

11. Mohan, M.J., Sunitha, C.: A study on ontology based abstractive summarization. Procedia Comput. Sci. **87**, 32–37 (2016)

Article Google Scholar

12. Kashefi, A.Z.: AZOM: a Persian structured text summarizer, pp. 234–237. Springer, Heidelberg (2011)

Google Scholar

13. Kumar, K.V., Yadav, D.: An improvised extractive approach to Hindi text summarization. In: Informatiove System Design & Intelligence Applications, pp. 291–300. Springer, New Delhi (2015)

Google Scholar

14. Al Qassem, L.M., Wang, D.: Automatic Arabic summarization: a survey of methodologies. Procedia Computer Science **117**, 10–18 (2017)

Article Google Scholar

15. García-Hernández, R.A., Ledeneva, Y.: Single extractive text summarization based on a genetic algorithm, pp. 374–383. Springer, Heidelberg (2013)

Google Scholar

16. Lehal, V. G.: Preprocessing phase of Punjabi language text summarization, pp. 250–253. Springer, Heidelberg (2011)

Google Scholar

17. Rino, L.H.M., Pardo, T. A. S.: A comparison of automatic summarizers, pp. 235–244. Springer, Heidelberg (2004)

Google Scholar

18. Luhn, K.P.: The automatic creation of literature abstracts. IBM J. Res. Dev. **2**(2), 159–165 (1958)

Article   **MathSciNet**   **Google Scholar**

19. Hanumanthappa, M., Swamy M.N.: A detailed study on Indian languages text mining. Int. J. Comput. Sci. Mobile Comput. 54–60 (2014)

Google Scholar

20. Banu, M., Karthika, C.: Tamil document summarization using semantic graph method. In: Proceeding of International Conference on Computational Intelligence & Multimedia Applications, pp. 128–134 (2007)

Google Scholar

21. Kutlu, M., Cığır, C.: Generic text summarization for Turkish. Comput. J. **53**(8), 1315–1323 (2010)

Article   **Google Scholar**

22. Nagwani, N.K.: Summarizing large text collection using topic modeling and clustering based on MapReduce framework. J. Big Data **2**(1), 1–18 (2015)

Google Scholar

23. Hu, P., He, T., Ji, D.: Chinese text summarization based on thematic area detection. In: ACL-04 workshop (2004)

Google Scholar

24. Poibeau, H. S.: Automatic text summarization: Past, Present & Future, pp. 3−21. Sprınger, Heidelberg (2013)

Google Scholar

25. Sethi, P., Sonawane, S.: Automatic text summarization of news articles. In: International Conference on Big Data, IoT and Data Science, pune, pp. 23−29. IEEE (2017)

Google Scholar

26. Shah, P., Desai, N.: A Survey of automatic text summarization techniques for Indian and Foreign languages. In: International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT), pp. 4598−4601. IEEE (2016)

Google Scholar

27. Jayashree, R., Srikanta, K.M.: Document summarization in Kannada using keyword extraction. In: Proceeding of AIAA 2011, CS & IT, pp. 121−127 (2011)

Google Scholar

28. Rathod, Y.V.: Extractive text summarization of Marathi news articles. In: IRJET, pp. 1204−1210, July 2018

Google Scholar

29. Kumar, S., Ram, V.S.: Text extractionfor an agglutinative language. Language in India, pp. 56−59 (2011)

Google Scholar

30. Soumya, S.,Kumar, G. S.: Automatic text summarization, pp. 787−789. Sprınger, Heidelberg (2011)

Google Scholar

31. Babar, S.A., Patil, P.D.: Improving performance of text summarization. Procedia Comput. Sci. **46**, 354–363 (2015)

Article **Google Scholar**

32. Sobh, I., Darwish, N.: A trainable Arabic Bayesian extractive generic text summarizer. In: Sixth Conference on Language Engineering ESLEC, pp. 49–154. ESLEC (2006)

Google Scholar

33. Sunitha, C., Jaya, A., Ganesh, A.: A study on Abstractive text summarization techniques in Indian Languages. Procedia Comput. Sci. **87**, 25–31 (2016)

Article **Google Scholar**

34. Gupta, V., Lehal, G.S.: Automatic Punjabi text extractive summarization system. In: Proceedings of COLING 2012, Mumbai, COLING, pp. 191–198 (2012)

Google Scholar

35. Gupta, V., Lehal, G.S.: Preprocessing phase of Punjabi language text summarization, pp. 250–253. Springer (2011)

Google Scholar

36. Liu, X., Webster, J.J.: An extractive text summarizer based on significant words, pp. 168–178. Springer (2009)

Google Scholar

37. Singh, S.P., Kumar, A., Mangal, A., Singhal, S.: Bilingual automatic text summarization using unsupervised deep learning. In: International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) − IEEE (2016)

Google Scholar

38. Narhari, S.A., Shedge, R.: Text categorization of Marathi documents using modified LINGO. IEEE (2017)

Google Scholar

39. Patil, J.J., Bogiri, N.: Automatic text categorization-Marathi documents. In: International Conference on Energy Systems and Applications (ICESA 2015), IEEE (2015)

Google Scholar

40. Bolaj, P., Govilkar, S.: Text classification for Marathi documents using supervised learning methods. Int. J. Comput. Appl. **155**(8), 0975−8887 (2016)

Google Scholar

41. Sargule, S., Kagalkar, R.M.: Strategy for Hindi text summarization using content based indexing approach. Int. J. Comput. Sci. Eng. IJCSE **4**(9), 36 (2016)

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42. Sethi, P., Sonawane, S., Khanwalker, S., Keskar, R.B.: Automatic text summarization of news articles. In: International Conference on Big Data, IoT and Data Science (BID) Vishwakarma Institute of Technology, Pune, 20−22 December. IEEE (2017)

Google Scholar

43. Dangre, N., Bodke, A., Date, A., Rungta, S., Pathak, S.S.: System for Marathi news clustering. In: 2nd International conference on Intelligent

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