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| Title | A comprehensive review on fake news detection with deep learning | | |
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| Published Journal Name | IEEE Access | | |
| Type of Publication | Journal | | |
| Volume | 9 | Issue |  |
| Publisher | IEEE | | |
| Publication Date | 2021/11/18 | | |
| ISSN | 2169-3536 | | |
| DOI | 10.1109/ACCESS.2021.3129329 | | |
| URL | https://ieeexplore.ieee.org/abstract/document/9620068 | | |
| Other Related Info. |  | | |
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| Abstract |  |
| A protuberant issue of the present time is that, organizations from different domains are struggling to obtain effective solutions for detecting online-based fake news. It is quite thought-provoking to distinguish fake information on the internet as it is often written to deceive users. Compared with many machine learning techniques, deep learning-based techniques are capable of detecting fake news more accurately. Previous review papers were based on data mining and machine learning techniques, scarcely exploring the deep learning techniques for fake news detection. However, emerging deep learning-based approaches such as Attention, Generative Adversarial Networks, and Bidirectional Encoder Representations for Transformers are absent from previous surveys. This study attempts to investigate advanced and state-of-the-art fake news detection mechanisms pensively. We begin with highlighting the fake news consequences. Then, we proceed with the discussion on the dataset used in previous research and their NLP techniques. A comprehensive overview of deep learning-based techniques has been bestowed to organize representative methods into various categories. The prominent evaluation metrics in fake news detection are also discussed. Nevertheless, we suggest further recommendations to improve fake news detection mechanisms in future research directions. | |