The Journal of *News Science*

Vol. 14, No. 1, Ser.53, Spring 2025, P. 36-41
Journal homepage: https://www.mjourcom.ir/
DOI : http//doi.org/10.22034/lrsi.2024.475755.1236

Open Access

ORIGINAL ARTICLE

Study and Evaluation of Election Prediction Methods Based on Big Data of Social Networks

Mohsen Finizadeh Bidgoli [1]

1.Corresponding author, PhD Communication Sciences, Science and Research branch, Islamic Azad University, Tehran, Iran. Email: finizadeh@chmail.ir

Received: August 28, 2024 Accepted: November 15, 2025

EXTENDED ABSTRACT

Introduction:

The advent of social media has changed the way people communicate and access news. Social media platforms provide real-time news from a variety of sources. Politicians have also recognized the potential of social media as a means of communicating and engaging with the public. This increased use of social media in political campaigns has also made it an attractive data source for researchers. Social media platforms provide a wealth of data on user behavior, allowing researchers to directly observe and analyze interactions between politicians and voters. A lot of raw data has been created in different fields within social networks, and researchers in different fields analyzed and evaluated these data according to the problem in question. On the other hand, humans have always wanted to know what will happen tomorrow or what other people think and what decisions they make.

Method:
The key goal of this article is to study and evaluate election prediction methods based on big data of social networks. Therefore, this article studies and evaluates the election forecasting methods based on a lot of data in the social network in Iran and the world as a result of international experience and the author. Based on this, 25 cases of research on election prediction based on big data of social networks were studied and two key methods were extracted. The first method is to use the amount of data and count the content, and the other method is to analyze the sentiments of the published content (identification of liking, disliking, or approach measurement or evaluation of feedback classified as positive, negative, or neutral responses).

Results:
By reviewing the researches done; Two methods can be used to analyze the data of X (former Twitter): the first method that only includes counting the tweets mentioned about the candidate or the party in question. The higher the number of tweets, the higher the number of votes. This method is desirable for many reasons: it is easy to use. It can be applied in near real time and can be used both to obtain aggregated votes and to infer voting intentions for individuals (i.e., the candidate that a user mentions the most and will be his choice). Second method of understanding votes using sentiment analysis: Another popular method for understanding voter intentions derived from tweets is sentiment analysis. Sentiment analysis is used to identify customer likes, dislikes, opinions, or feedback about content, which is categorized as positive, negative, or neutral responses. In other words, sentiment analysis, which is called opinion mining, is a field of studies that analyzes people's feelings, attitudes, and emotions towards entities such as products, services, organizations, individuals, topics, events, and topics. In fact, we first find the most popular topics discussed by voters on X (formerly Twitter). Each topic is then associated with each statement and classified as positive, negative or neutral based on sentiment. Findings from the evaluation of international researches with the author's experience indicate that although both methods have been responsive in some cases, the possibility of responding to the method of sentiment analysis and understanding the content of posts seems to be more effective and accurate in FALB. Also, by examining these articles, it seems that although the methods are slightly different, these two methods are common in these ۲۵conveyors that have been examined in different countries.

Conclusions:
In general, big data of social networks has an effective function in politics. In fact, cyberspace researchers have analyzed and evaluated raw data based on the data available in cyberspace and social networks, and then based on the study of the country's current environment and big data methods such as sentiment analysis and the study of the studied platform, they have predicted the elections. It can be concluded that elections and similar political and social events can be predicted, and even in a positive view, the decision and feelings of a society can be predicted with the help of social network big data, but this means very high accuracy in all methods. It is not, but it can be the introduction of researches and experiences that will be useful for the development of the use of big data of social networks.

Data Availability Statement
Data available on request from the authors.
Acknowledgements
The authors would like to thank anonymous reviewers.
Ethical considerations
Not applicable.
Funding
Not applicable.
Conflict of interest
The authors declare no conflict of interest.

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Cite this article: Finizadeh Bidgoli M. (2025), Study and Evaluation of Election Prediction Methods Based on Big Data of Social Networks, *News Science*, 14 (1), 36-41. DOI: http//doi.org/10.22034/lrsi.2024.475755.1236

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