

# PERSONALITY PREDICTION VIA SOCIAL MEDIA USING ADVANCED MACHINE LEARNING ALGORITHMS: A REVIEW

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**Abstract:** By building social networks, a number of methods are developed to identify the user's personality in terms of exercise and language use. Compare specific methods for different AI statistics, sources and capabilities. It is intended that the personality traits of users of social media can be predicted according to various features and controls. We extract social information and questions and focus on how consumer text information can be used to predict personality. In this analysis, we take user data using integration analysis and key analysis and use a multi-task model to measure and analyze results.

**Keywords:** - Data Mining, Personality Prediction, sentiment analysis, social media

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## I INTRODUCTION

The popularity of social networks is causing social change, facilitating social exchange, communication and collaboration between changes. On the other hand, people can use the network platform to communicate with friends, comment, and discuss social topics and more. On the other hand, the role of social networking sites in daily life is growing, and to a great extent, the reconstruction of a network of real social relationships. At the same time, because the nature and status of a social network is easily recorded, detected and analyzed, public computer has become an important research tool in the field of information technology and computer. Because human behavior and personality are closely related, making personal predictions have a broader learning value and business prospects.

Therefore, the use of social networking sites to touch user contact information has become a major focus for businesses and academics. Personality is a high standard of doing different personalities, even in the same place, different people will show different behaviors, from the different personalities of each person. Personality psychology is one of the branches of psychology, especially in the external behavior of people to distinguish between the inner qualities of people, and to study the relationships between them. Psychology often uses personality traits to define human personality, defining a user's behavior and preferences.

The layout of the paper is as follows section II provides related work and limitations and the final section concludes the paper with future work followed by indicators.

## II MOTIVATION

The popularity of social networks allows for the social development of individuals, enabling people to share, communicate and interact. On the other hand, people can make contact with friends, comment on social issues and so on using

the network platform. On the other hand, the importance of communicating with people in everyday life is increasing, and the restoration of a network of real social obligations is also greatly affected. At the same time, social computing has become an important part of research in the field of information and computer technology because the actions and status of social networks are easily documented, discovered and evaluated. Because human actions and personalities are so intertwined, personal predictions are of far greater importance in education and hope.

## III. RELATED WORK

3.1 Renata L. Rosa et al describes Internet Connection Sites (OSN), which provides important information to users who are sensitive to various topics in these lines and requests, for example surveys and proposal structures (RS) can collect and disseminate this information. This paper presents an information-based recommendation system (KBRS), which includes a framework for viewing the willingness to classify clients with dementia, obviously, depression and stress using CNN, BLSTM-RNN algorithms and eSM2 metric testing.

3.2 Guang Yang et. In the case of microblogs, emojis are often used and have clear and loving effects. They are notable indicators of the enthusiasm for the analysis of the nostalgic microblog. They address this issue by creating a space of enthusiasm as a framework for partial expression and anticipation of emojis and words in a loving space based on semantic structure using an advanced network algorithm.

3.3 Pennebaker and King et. Al They have studied terminology in a wide range of fields, such as journals, school writing activities and social science books, researching personality-related aspects of language knowledge. Their findings show that friendly people prefer to use multiple posts while presentations and unscrupulous people use multiple words to create a

difference. Many hopeless words about emotion are used by neurotics.

3.4 Argamon et al. The linguistic features of isolated neuroticism and extraversion include terms of function, action and evaluation action and general actions. Their findings found that the use of active lexical elements, for example, the examination of lexical taxonomy was related to neuroticism, while the effects of extraversion were less pronounced.

3.5 Oberlander and Nowson et al. Some studies have linked neurotransmitters with delicate beliefs or weak attempts to address personality traits, distinguishing bloggers' proliferation, stability, acceptance, and awareness as a learning algorithm using the predictable model of the Naive Bayes, using various n-gram collections .

3.6 Mairesse et al. Similarities between the Big 5 symbols have also been studied and the performance sets are LIWC and RMC. While LIWC features include word meanings such as feelings of hope or frustration, RMC features include word age acquisition or image capability effects.

3.7 Gosling et al. Personality identification derived from network setup and other foreign language data have an even shorter background of social network analysis. The influence of a user's behaviour on personality.

#### IV OPEN ISSUES

Much work has been done in this field due to its widespread use and application. In this section, some of the methods used to achieve the same purpose are mentioned. These functions are highly differentiated by the algorithm of personality prediction systems.

- The current system used a fixed database.
- Low accuracy
- In algorithms used to extract personal prediction data.

#### V CONCLUSION

In this paper, we provide a framework for research data on social and social networks. The study examines the literature on the use of the communication framework as a study of the behavioral aspect by examining the relationship between users' personalities and their behavior in social interaction. To predict the user's personality, we have conducted a comparative study of Facebook's best behavioral indicators on the same set of features to capture the ways users meet, communicate and communicate.

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