


# Chapter 16


## Computational Approach for Personality Detection on Attributes: An IoT–MMBD–Enabled Environment

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### ABSTRACT

*Psychologists seek to measure personality to analyze the human behavior through a number of methods, which are self-enhancing (humor use to enhance self), affiliative (humor use to enhance the relationship with other), aggressive (humor use to enhance the self at the expense of others), self-defeating (the humor use to enhance relationships at the expense of self). The purpose of this chapter is to enlighten the use of personality detection test in academics, job placement, group-interaction, and self-reflection. This chapter provides the use of multimedia and IoT to detect the personality and to analyze the different human behaviors. It also includes the concept of big data for the storage and processing the data that will be generated while analyzing the personality through IoT. Linear regression and multiple linear regression are proved to be the best, so they can be used to implement the prediction of personality of individuals. Decision tree regression model has achieved minimum accuracy in comparison to others.*

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## **INTRODUCTION**

“Personality” has been taken from the word “Persona”. “Persona” is the characterization of a person which is different from his real-life character. Personality can be defined as the sum of characteristics, behavior and qualities due to which a person is remarked as different or unique. Personality of a person can be described as the habitual behavior and emotional pattern of the person which evolves from the biological and environmental factors.

The personality of a person can influence the social, personal and professional life of an individual therefore we can use the personality detection test followed by some tasks to develop our personality so as to improve ourselves for better social, personal and professional life. Personality psychology is the study of the psychology of personality which analyses the differences in behavior of an individual.

Many approaches have been taken to studying personality, including learning and trait-based theories, biological, cognitive based theories as well as psychodynamic and humanistic approaches. The possible method we are going to use in this research article is taking quiz from individuals and concluding their personality traits on the basis of result. The questionnaire used in this research article is based on the difference of sense of humor of person. The sense of humor of a person is the tendency of an individual to provoke laughter, but the sense of humor or the type of the humor the person uses can accentuates the personality trait of an individual. For example, the person can use the humor for sarcasm or to appreciate anyone or to get attention. Therefore, the sense of humor of a person or their goal for the usage of humor accentuates the personality trait of the individual. H. J. Eysenck, Eysenck, H. J. (1950), Livergood, N. D.(1995), Francis, L. J., Brown, L. B., et al. (1992), have stated that throughout 20th century, psychologists showed an interest in the study of individual differences in their sense of humor.

In the past two decades, researchers interested in detection personality of an individual since, the personality of a person can influence the individual’s social, professional as well as personal life so to help the to develop their personality traits.

## **BIG DATA AND IOT**

Big data is the collection of data set which is being generated at tremendous rate around the world. These data can be structured or unstructured. These data are so large and complex that it is difficult to process them by using traditional data processing application. So, to overcome the processing and storage difficulty of big data, an open source Hadoop is introduced.

Hadoop is an open source distributed processing Framework that is used to store tremendous amount of data i.e. big data and also for their processing. Big Data has different characteristics which are defined using 4 Vs (Figure 1). Young, G., Mapping mayhem (2003), Rossmo, D. K.(1999), Mairesse, F., & Walker, M. (2006).

Internet of Things (abbreviated as IOT) is a system or network which connects all physical objects to the internet through routers or network devices to collect and share the data without manual intervention.

(Goldberg, L. R.(2007), Polzehl, T., Möller, S., et al. (2010 december), Ivanov, A. V., Riccardi, G., et al. (2011)) have found that IOT provides a common platform and language for all physical devices to dumb their data and to communicate with each other. Data emitted from various sensors are securely provided to IOT platform and is integrated. Now necessary and valuable information is extracted. Finally, results are shared with other devices to improve the efficiency and for better user experience automation.

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