

## Application of Sentiment Analysis in Understanding Human Emotions and Behaviour

Sweta Saraff<sup>1,\*</sup>, Roman Taraban<sup>2</sup>, Rishipal<sup>3</sup>, Ramakrishna Biswal<sup>4</sup>, Shweta Kedas<sup>5</sup> and Shakuntala Gupta<sup>4</sup>

<sup>1</sup>Amity Institute of Psychology and Allied Sciences, Amity University, Kolkata, India. [ssaraff306@gmail.com](mailto:ssaraff306@gmail.com)

<sup>2</sup>Department of Psychological Sciences, Texas Tech University, USA. [Roman.Taraban@ttu.edu](mailto:Roman.Taraban@ttu.edu)

<sup>3</sup>Humanities & Applied Sciences, S, Haryana, India. [rishipal\\_anand@rediffmail.com](mailto:rishipal_anand@rediffmail.com)

<sup>4</sup>Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, India. [rkbpsych@gmail.com](mailto:rkbpsych@gmail.com), [shakuntala.naik@gmail.com](mailto:shakuntala.naik@gmail.com)

<sup>5</sup>Department of Computer Science, National Institute of Technology, Rourkela, India. [shweta.kedas@gmail.com](mailto:shweta.kedas@gmail.com)

### Abstract

**INTRODUCTION:** Presently, naturalistic observation is considered as critical in understanding, and predicting the complexities of feelings and sentiments. Emerging trends of social media has completely revolutionized the process of communication. Social media, microblogging, and other means of e-communication can be used for extracting the content to decode the quality, valence, and effectiveness of communication.

**OBJECTIVES:** In this paper, we represent the explanatory urge of mental health assessment during a pandemic situation, especially in a smart city scenario.

**METHODS:** We reviewed the role of sentimental analysis, as an emerging application tool for emotional and behavioural analysis for the population affected by a pandemic. This paper examines the prospect of analysing the sentiments through machine learning tools to understand, describe, and predict human behavior.

**CONCLUSION:** Further analysis of this psychological e-content can be used to understand and predict the patterns of human sentiments.

**Keywords:** Sentiment Analysis, Human Behavior, Emotions, Natural Language Processing

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\*Corresponding author. Sweta Saraff, [ssaraff306@gmail.com](mailto:ssaraff306@gmail.com)

### 1. Introduction

The Covid-19 pandemic has caused an immediate, focused demand for technological assistance in all the mediums of human communication. In a smart city, we consider most of the citizens are netizens, and institutions have a soft, virtual connection with society. Today everyone is using more of text messages, than calling or interacting personally. Face to face interaction has reduced and youth tend to express their

emotions and moods through social media, which may be text, emoticons, punctuations, etc. Recently Sentiment Analysis has been considered as a powerful tool to support psychological evaluations and predict mental health conditions. The multifaceted nature of the expression of valence especially with relation to emotion thought, affect, choice, and decisiveness, has intrigued scientists, philosophers, psychologists, and recently data analysts. With social media surging as the primary mode of communication, both computer scientists and data crunchers have taken a keen interest in both subjective and objective













