

# Data Analytics Project 2

## Culturally Relevant Sentiment Analysis

Text analytics has become an important tool for assessing sentiment in a variety of situations, including customer service, social media, and written works. Sentiment is defined as an immediate emotional response to an issue that may require immediate assistance. However, software that helps perform sentiment analysis has a Western European bias, that is, the tools are not culturally flexible.

**You goal** to perform culturally relevant sentiment analysis or topic analysis (whichever you decide is more appropriate) for Indian Philosophy (2 volumes), by S. Radhakrishnan. A Western European interpretation is not appropriate, so you will have to do some additional coding to make this applicable for Indian Culture. These are available in my VIT GitHub directory:

[Indian Philosophy Volume I](#)

[Indian Philosophy Volume II](#)

### Requirements:

**Analysis:** You may use Rstudio or Python (including Jupyter Notebook) to perform your analysis.

A **white-paper** report (Google what this consist of) with a maximum of five pages. You may add an appendix containing your detailed analysis results (no more than 10 additional pages). An appendix with your model code must be attached. This will give you the foundation of a conference paper.

A **PowerPoint slide deck** consisting of a maximum of about 10 slides:

1. Title slide
2. Business problem statement
3. Modeling objective
4. Model functional form and reasoning for its selection
5. Final model (variables with coefficients and explanation) summary
6. 1 deep-dive slide per model variable (a good model may only have three or four factors, even if all variables are statistically significant—modeling is an “art”).

Each slide in a PowerPoint slide deck needs to stand alone yet have few words and contain one graphic (chart, graph, table, picture, etc.) with words, but not verbose. Each slide should tell a story that an executive will understand. If you cannot effectively communicate your analysis, it is worthless—a model is only good if it is used.

### Stages of Model Development

1. Business problem development and model requirement definition
2. Model design plan, including modeling objective and model functional from, plus potential data sources

3. Model development
  - a. Data preprocessing
  - b. Exploratory analysis
  - c. Model training
  - d. Model testing
4. Model post processing analysis
5. Model validation
6. Model Implementation

**Citations:** Use ISO 690 with Numerical Reference.