EMPIRICAL APPROACHES FOR MARKETING AND MANAGEMENT

Period: a.y. 2021/22

Class times:

Thursday 15.00-18.20

Instructor:

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Course description

A growing number of papers applied textural analysis appeared in top Marketing, Management, Accounting journals in recent years.

To help enrich your research agenda, this course will provide you with an understanding of common and emerging methods of analyzing large collections of textual data. In addition to the survey of text analytics methods, this course will teach you how to apply these text analytics methods in Python.

In summary, the focus of this course is on concepts and methods of text analytics, their implementations in Python, and applications to empirical research. Ph.D. students of all disciplines may benefit from this course.

Learning Objectives

By the end of the seminar, you are expected to have developed the following skills:

- An understanding of how text analytics are used in Marketing, Management
- An understanding of traditional and emerging methods for analyzing textual information
- Familiarity with basic syntax in Python
- An understanding of how to apply text analytics methods in Python

Course Requirement

1. **Final Project – Research Proposal**

This final project asks you to come up with a promising research idea in which text analytics is applied to your area of interest. The purpose of the project is to help jumpstart your publication pipeline by prodding you to explore opportunities in applying text analysis to your field. The goal is to come up with an idea that you can pursue to write a publishable manuscript, therefore, the idea should be novel in some ways (e.g., new research question, new hypothesis, or revisit old research question but apply text analysis on new data) and feasible.

By the end of the course, you have to submit a proposal that includes these sections:

- Research question: 1-2 paragraphs formally describing your research question.
- Motivation: describe why your research question is important
- Literature review: discuss extant theory and prior related published works
- Proposed research design: describe in detail how you will use text analysis to answer your research questions
- Data: describe in detail what data you plan to use, and how you plan to obtain or collect these data. You should show that the required data for this research idea are not prohibit difficult to get.
- Proposed analyses: describe the analyses that you plan to do
- Expected findings and managerial implications
- Original contribution: describe the original and innovative contribution of this paper to the existing body of knowledge

2. Final Project - Presentation

You will be asked to present the proposal of your research idea during the last session. You will have 10 minutes to present your research proposal, followed by a short Q&A session.

Tentative list of topics

Lecture

1. Applications of text analytics in Marketing, Management, and Accounting Research
2. Natural Language Processing
   Regular Expression, Stop-words, Tokenization, Normalization, Stemming and Lemming, Part of Speech Tagging, Word vector representation: word2vec, Glove, and other deep learning methods
3. Text Analysis
   Frequency analysis, Term weighting, Clustering, Classification,

Probabilistic topic model (Latent Dirichlet Allocation)
4. Information extraction
Name entity and Relation, Affective meaning: Sentiment, Emotion

Computer Lab

1. Python Syntax
2. Data Acquisition from the Web: website scraping
3. Text Analytics in Python

Software

Google Colab will be used in this course for the Python programming.