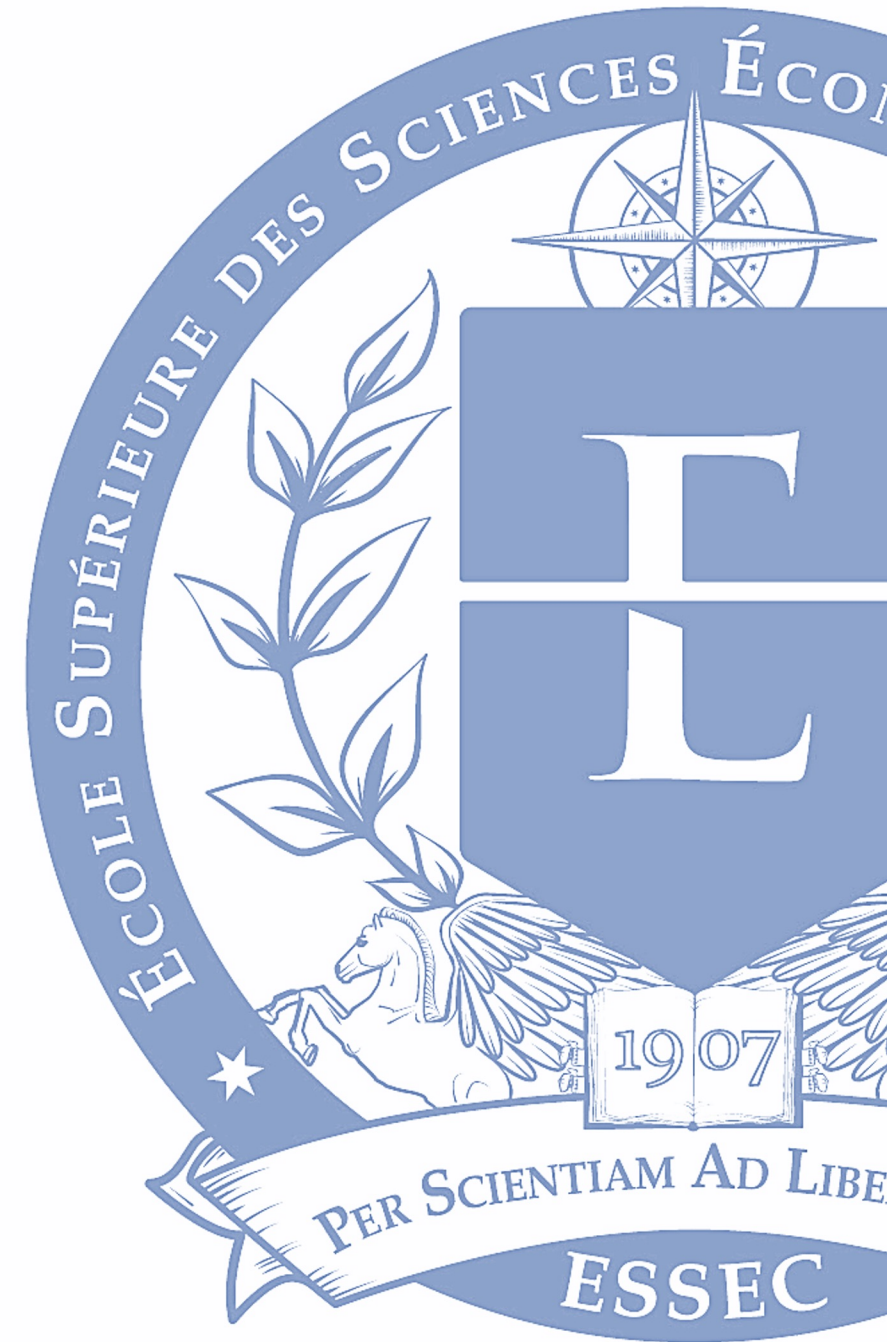# Marketing Analytics

Final Projects

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Timing and Rules

- **Select a topic as a group (I recommend to have a look at all data sets and topics, then decide within a week)**
- **Split the project in phases, organize leads for each phase**
- **Submit project via Moodle January 9, 1pm**
- **Submissons must include names of all group members and section information for each group member**
- **Each group member must also hand in a peer evaluation of all other group members**

Deliverables

Summary Presentation of your project
1) Executive Summary (max. slides)
2) Project outline and agenda (3-5 slides)
3) Data Description (4-6 slides)
4) Method Description (2-5 slides)
5) Results (3-6 slides)
6) Implications and Recommendations (3-5 slides)
7) Appendix (max. 15 slides)

Dashboard
Present Results
Allow User to explore results
Allow user to run predictions/simulations of cases

Topic1: Segmentation and CRM Recommender Tool

- Data from 8800 customers
- Build valid segmentation model
- Assign 150 new customers to segments and decide which credit card limit they shall get
- Build dashboard that allows bank managers to put in customer data and get recommendation which limit he/she should give

Topic1 Method Recommendations

- All sorts of cluster analysis (e.g. k-means, etc.)
- Leverage distance measures to classify new customers to belong to segments or deliver product recommendations

Topic 2: Online Ad Click Predictor

- Consumer click data for ad campaign with 18000 observations
- 2000 consumer profiles to predict click/no click
- Consumer profile and order data
- Develop model that predicts click/conversion
- Build Dashboard that allows manager to explore predictions

Topic 2 Method Recommendations

- Supervised Learning (CART, Forrests, etc.)
- Try Hold-Out Validation to train/fine tune model
- Make predictions for new 2000 customers (I got real data and can then see how well you do)

Topic 3: Airline UGC Dashboard

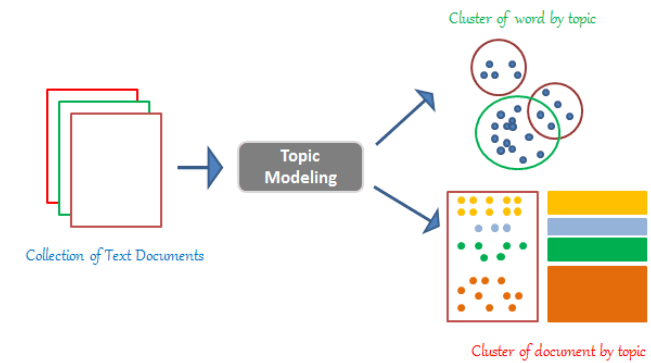- **Identify for each airline topics that are idiosyncratic to positive and negative reviews**

- **Understand how topics drive satisfaction (OLS that explains rating of a review with topic shares)**

- **Develop dashboard that tracks on monthly level (2020-today) sentiment per airline and per destination**

Topic 4: MindSet Metrics

STAY SAFE, DRINK DIRTEA.

- Flavored cold tea drink developed and marketed by German HipHop/Influencer
- Daily Sales Data for 1100 consecutive days
- Includes data for diverse ad channels
- Includes Mindset Metric Data
- Need to model effects alongside the funnel and understand direct and indirect effects to identify KPIs
- Build dashboard with KPIs

Topic4 Method Suggestions

- Linear Regression Models
- Account for direct and indirect effects
- Take possible lag effects into consideration
- Mindset Metrics may be interdependent

Topic 5: Energy Drink RoI Analysis

- Number 2 Energy Drink
- Weekly Sales and Advertising Data for various channels and 104 weeks
- Need to measure effects for channels and calculate RoI
- Develop dashboard that shows impact of different allocation options
- Dashboard should similarly give optimal allocation recommendation

Topic 5: Methods

- OLS regression model
- Log/Log Specification?
- There maybe interaction effects across channels!

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Some shiny tutorials

Youtube Tutorial: How to use R-Studio with Shiny

Youtube Long Tutorial: Dashboard with Shiny

Youtube Tutorial: Shiny and ChatGPT

Shiy Tutorial by R-Posit

Shiny CheatSheet

Questions? Do not hesitate to contact me through the forum

Thank You!

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