McDonald’s Feedback Analysis: Social Media Command Centre

IS 492 Introduction to GEN AI - Spring 2026

Jeet Thakore, Ashish Gole, Pranav Charakondala

GitHub - https://github.com/IS492-SP26/team-project-social-media-command-centre

Problem & Motivation

Main Problem

Feedback is scattered across Google Maps and social media, creating an aggregation problem where high national ratings hide failing individual stores

Primary Victims

Restaurant managers who cannot read 33,000 reviews manually to find actionable issues

Urgency

McDonald’s serves 69 million people daily. Small service failures go public instantly, and retaining just 5 percent more customers can increase profits by up to 95 percent

Target Users & Core Tasks

Core Tasks

Identify High Risk Locations: Locate stores with systemic failures.
Root Cause Diagnosis: Use text analysis to separate food quality complaints from service speed issues.

Primary Users

Regional Operations Managers and C-Level Executives

Success Outcome

Transforming messy text into specific action items for store interventions

Existing Tools & Gaps

Existing Tools

1. Traditional surveys
2. Mystery Shoppers

They provide structured, easy to read satisfaction scores

Gaps

1. **Speed:** These methods are slow and miss real time spikes in negative sentiment.
2. **Data Quality:** Academic models often fail on real world data that includes slang, emojis, and relative timestamps like 3 months ago.
3. **Scope:** Most tools aggregate data nationally and ignore store level geographic insights

Key Insights from Literature

01

Transformer Models

Literature shows RoBERTa is superior for social media because it was trained on 124 million informal posts

02

Aspect Based Sentiment

Research highlights that customers often have mixed feelings, such as liking the food but hating the service

03

Visualization Principles

We are applying the data ink ratio to ensure our dashboards prioritize actionable information over decorative elements

04

Design Implication

We will implement confidence thresholds to flag ambiguous neutral reviews for manual human audit

Initial Concept & Value Proposition

Proposal

A scalable pipeline that cleans 33,000 reviews and visualizes them in a three-page Power BI dashboard

Value of GEN AI

Large Language Models allow us to understand context, sarcasm, and intent that simple word counting tools miss

Uniqueness

We have built a custom parser to convert relative dates into absolute timestamps to enable time series analysis

Milestones, Roles & Next Steps

Roles

Ashish Gole : Data Engineering

Jeet Thakore : NLP Model Refinement

Pranav Charakondala: Dashboard Architecture

Checkpoint 2 Goals

We will be experimenting with various transformer models like SBERT Roberta etc and then going forward with the best performing one as per our datasets in the subsequent checkpoints

Biggest Risk

Selection bias, as extreme experiences are overrepresented in online reviews.

THANK YOU!

Q&A!