COMPSCI 4NL3: Natural Language Processing Team Proposal

 ${\rm Team}\ 4$

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Contents

| 1 | Task Overview | 2 |
|--------------|--|---|
| 2 | Task Definition | 2 |
| 3 | Data Source and Plan for Data Collection | 2 |
| 4 | Dataset Details | 9 |
| 5 | Team Contract 5.1 Team Purpose | 3 |
| 6 | Team Contract Agreement | 6 |
| \mathbf{L} | ist of Tables | |
| | 1 Team Contract Agreement Signatures | 6 |

1 Task Overview

This project, titled 'Sentiment and Focus Analysis in Post-Game Interviews' aims to analyze post-game interview responses from players and coaches to gain insights into their communication styles and focus areas. By examining these responses, we seek to classify each statement along two axes:

- 1. Whether the response focuses on the individual (self) or the team.
- 2. Whether the sentiment expressed is positive or negative.

This analysis will shed light on how players and coaches emphasize teamwork or individual performance and how their sentiments vary depending on the context. The results can contribute to a deeper understanding of communication patterns within sports and their alignment with team dynamics and morale.

The project poses several challenges:

- Ambiguity in Language: Responses often contain nuanced phrasing or implicit meanings that make it difficult to determine focus or sentiment.
- Overlapping Categories: Some responses may include references to both individual and team efforts, requiring careful textual interpretation.

Addressing these challenges will require careful preprocessing, robus labelling criteria and advanced modelling techniques to ensure meaningful and reliable classifications.

2 Task Definition

This project involves a **multi-label classification task** where each data point is assigned two binary labels:

- Focus: 2 classes (Individual, Team)
- Sentiment: 2 classes (Positive, Negative)

Sample annotations incldue "Positive, Team", "Negative, Individual", "Positive, Individual" and "Negative, Team".

3 Data Source and Plan for Data Collection

Our data will be interview transcripts on asapsports.com, specifically the responses given by the interviewees (players and/or coaches). We will write an automated web scraping script in Python to collect the transcript text.

There is neither a terms of service nor a Robots Exclusion Protocol (robots.txt) file on the website, likely because the website doesn't get a lot of traffic. Since this is publicly available data taken from interviews, the biggest concern would be rate limiting. We would only need to scrape about 100 transcripts to meet our required number of data points, thus we can just limit the number of requests per second to not overload their servers.

After tokenizing and removing unecessary information (e.g. interviewee name) we can store the corpus in a single file or multiple files for labelling purposes.

4 Dataset Details

A data point will be considered a single paragraph of a response to an interview question by a player or coach. For each event, we will look at each and every day of interview recordings that are tracked. The events covered this time will be the entirety of both NBA and WNBA Finals, as well as both NBA and WNBA Drafts. Based on these events, there are a total of 17 days of interviews. Furthermore, each recording day has interviews from multiple different players and coaches that each answer questions with either a one or multi-paragraph response. Based on this information, our dataset is expected to contain approximately 2500 data points.

The following is a set of 3 data points taken from the Game 2 Postgame interview with Jason Kidd of the Dallas Mavericks:

- 1. Yeah, we are not down. We're positive. This is a group that believes. We didn't get an opportunity to get a split or win two here on the road. Now Boston held serve. Now we've got to go home and hold serve.
 - Assigned Labels: Positive, Team
- 2. Big. The small things, you know, we have to do the small things, and that's part of the game. Those are points that we left on the board, and we didn't shoot free throws well tonight, and we have to be better.
 - Assigned Labels: Negative, Team
- 3. Yeah, I think Luka is a special player. He's one of, if not the best player in the world, and he causes a problem. He's able to find guys. Again, creating open opportunities, and we just didn't take advantage of it.
 - Assigned Labels: Positive, Individual

5 Team Contract

This section outlines the expected team dynamic and roles/responsibilities of each team member.

5.1 Team Purpose

Our team's purpose is to analyze and interpret communication dynamics within sports contexts to gain insights into individual and team-focused behaviors and sentiments. By classifying responses and identifying patterns, we aim to enhance understanding of team dynamics, promote collaboration, and support decision-making that drives collective success. Through this, we contribute to fostering a positive, cohesive environment where both individual strengths and team goals are harmoniously aligned.

5.2 Team Member Roles and Responsibilities

This section details rules and expectations every team member agrees to.

- Team members are expected to come to meetings prepared, having completed any previously
 assigned tasks or research. An agenda will be shared at the start of the meeting in the first five
 minutes.
- Attendance (either in person or virtual) is mandatory for all scheduled meetings and work periods unless a valid reason is provided. Active participation and engagement during the meeting is expected from everyone.

- Meetings will be held once a week for 60 (time limit open to extension based on each member's availability), with additional work periods scheduled as needed. Any changes to the schedule will be agreed upon by the team. Meetings will be held every Thursday from 2:30 to 3:30 pm EST in person, unless agreed upon otherwise.
- The primary communication platform will be a Teams group chat. All team members are expected to check and respond to messages within 24 hours during weekdays and 48 hours during weekends. Urgent matters should be flagged for immediate attention.
- All work submitted should meet the agreed-upon standards of quality and be completed on time. Team members are responsible for proofreading their work and ensuring it aligns with the project's goals before submission.
- Decisions will be made by consensus whenever possible. If consensus cannot be reached, the team will vote on the issue. In case of a tie or unresolved conflict, the teaching assistant and/or the professor will have the final say after considering all opinions.
- Team members will communicate respectfully and professionally, both during meetings and in written correspondence. Constructive feedback is encouraged, and all opinions should be valued and considered.

5.3 Facilitation Activities

The team will adopt a collaborative and structured approach to leadership, facilitation, and management activities to ensure smooth operations and the achievement of objectives. Leadership roles will be clearly defined, with a focus on fostering open communication, delegation of responsibilities, and promoting accountability among all team members.

Facilitation will involve regular meetings to align on goals, review progress, and address challenges collectively, ensuring everyone's voice is heard and valued. Management activities will include maintaining a clear workflow, tracking deliverables through project management tools like GitHub, and encouraging continuous feedback for improvement. The leadership approach will emphasize adaptability, teamwork, and proactive problem-solving to ensure the team remains aligned, motivated, and effective in achieving its purpose.

For equal distirbution of work, the leadership role will be rotated among all team members over the course of the semester ensuring, each team member is awarded the opportunity to be in the role once over the span of the project.

5.4 Procedure for Meeting Unmet Expectations

If the work cannot be completed to the team's standard, the team member responsible must either provide a clear explanation or take steps to improve and resubmit the work to meet the required quality. The steps outlined for raising and discussing concerns include:

- 1. Defining the root of the problem and describing the conflict.
- 2. Recognizing different viewpoints for all parties or areas that lack mutual understanding.
- 3. Establishing a common goal.
- 4. Developing a plan that both parties can agree on, addressing the main issue.
- 5. Agreeing on a plan of action to reach an agreement.

6. Monitoring and following up on the resolution progress to identify the actions leading up after the conflict.

The leader and/or mediator must be an individual that is not involved in the conflict. They will ensure that everyone's voices are heard, while making sure that there is an equal and balanced discussion. A space should be fostered where everyone's voices are heard and respected in an equal manner that is fair to all. In addition, they must be empathetic about all parties involved, as well as understanding the situation, and willing to support both sides to work through the differences. Additionally, they must be approachable and respectful.

Responsibilities of Leader/Mediator:

- Coordinate meetings to discuss issues
- Keep discussions productive and respectful to all parties
- Document any key points and action items from the meetings (meeting minutes)
- Track progress of resolution and follow up with all parties

5.5 Procedure for Handling Peer Feedback

- All feedback can be submitted directly to the team member concerned either privately or as a team.
- If there is a group concern, the whole team can hold a behavior review and address the concerns as a team.
- Feedback should be constructive, respectful, and actionable. Team members should encourage focusing on specific behaviors, outcomes, or suggestions for improvement.
- Ensure that feedback is objective, free of personal attacks, and focuses on actions, not personality.
- Ensure that feedback includes both positive aspects (what went well) and areas for growth.
- Under no circumstances should feedback be disrespectful or inappropriate to the person(s) receiving it. This includes but is not limited to, using derogatory or insulting language, making personal attacks, or dismissing the concerns of other members.
- All feedback should be in written format (jot notes or paragraphs) along with suggestions for improvement. Feedback should be submitted to the team members at the mid-project evaluation and the end of project evaluation.
- A team member receiving feedback should review said feedback and the suggestions for improvement, implementing any needed changes by team milestone check-ins and reviews.
- The team, through a brief meeting, will hold team members accountable for implementing their constructive feedback. Team members will support each other in accomplishing their goals and taking care to address and mitigate any concerns or challenges.

6 Team Contract Agreement

All team members are responsible for performing the required work outlined in each milestone honestly, without plagiarism and cheating.

This is a reminder that submitting this work with your name and macID is a statement and understanding that this work is your own and adheres to the Academic Integrity Policy of McMaster University. If you agree to terms above, please sign below in the designated area by printing your full name:

| macID | Full Name as Signature |
|----------|------------------------|
| fatimn8 | Nawaal Fatima |
| lij499 | |
| bhuiyr2 | Rashad Ahmed Bhuiyan |
| gulats10 | Sumanya Gulati |

Table 1: Team Contract Agreement Signatures