The aim of the sentimental analysis is to understand more about the sentiment in the Harry Potter world.

Find the darkest and happiest books and discover if the books and the movie are telling the same sentimental story.

Firstly, we are interested in the book's sentiments. We start with a deep understanding of the books page by page. The sentiment of the pages will guide our analysis.

How can a page have sentiment? We have a big list of super common and used English words and a happiness grade for each one. The grade is based on the comparison and grading on average of the words taken from Twitter, Google Books (English), music lyrics (1960 to 2007), and the New York Times (1987 to 2007). Then, the sentiment of a page will be the average of the sentiments of the words on the page.

Using same functions on Python, we have one plot for each movie with the sentiment profile of that book. A sentiment profile is a graph that has the sentiment on the y-axis and position in the text on the x-axis. The effect of changing the size of the sliding window is that it changes the amount of text we are taking in consideration. Starting with 15 words we capture the moving average of the sentiment of a few sentences. Increasing the window the moving average will say more about the whole book and can capture a more important flow. In a page there are usually around 500 words. Using one page as the window, it is possible to follow how the sentiment will change page by page.

PLOTS (Books1,2,5,6,…) *put them in these order please. I will analyse 1,2,5,6 in the text below. Or maybe you can put in order and put them again after the analyse.*

The sentiment profile of the books is different: the maximum and minimum sentiment seem to be the same, but they behave differently. However, from book 5 the range will be bigger, spreading in the negative emotion. This could be due to fact that the children who were reading the first 4 books now are guys who can start to read some scarring, creepy and sad moments.

We cannot find a book which has a calm behavior around the average. All books, instead, have lot of up and down with a jagged profile and sudden changes. This is what we expect from this book, where there are very happy and sad events.

For instance in book 1, Harry meets for the first time Voldemort and this is really clear from the sentiment profile. In the books there are also deeply sad moments like in book 2 when Harry is fighting Tom Riddle or in books 5 and 6 when respectively both Sirius Black and Dumbledore die. These moments are really clear in the sentiment profile with high and low peak.

We now take in consideration the subtitles of the 8 movies (book 7 was filmed in 2 parts). We want to visualize the sentiment in the movies, find the most sentimental moments. And than compare these moments with the one found in the books. Our goal is to find the difference between books and movies.

PLOTS(1,3,8,…) *same idea seen in the books plots*

On average the saddest movie is Movie 1 and Movie 6, the happiest ones are Movie 8 (part 2 of book 7) and Movie 4. However, all books have negative average sentiment. But let’s take a look closer. In movie 1 “Harry Potter and the sorcerer’s stone” there is a super happy moment at 2:12:00. Now we want to double check in the movie which moment is it. This scene is when Harry, Ron, and Hermione play their way across a chessboard to pass the White players in a giant-scaled and dangerous game of Wizard Chess. In order for our heroes to pass, they have to play deadly moves as Harry, Ron, and Hermione are part of the Black pieces as a Bishop, Knight, and Castle (Rook). After Ron's sacrifice, there is a so sentimental speech between Harry and Hermione speaking about true friendship and courage.

<https://www.youtube.com/watch?v=Jx3BuC4teV0> speech start at 2:30

In movie 3 “The prisoner of Azkaban” the saddest moment in when Sirius Black ‘wants’ to kill Harry and Hermione proposes to sacrifice herself to protect Harry.

<https://www.youtube.com/watch?v=8cL527bg0II&t=127s>

In movie 4 “Harry Potter and the goblet of fire” starts with the saddest moment when Harry has a nightmare about Voldemort killing the castle housekeeper. The saddest moment ever in all movies is in the last movie “Harry Potter deathly hallows part 2” at 1:02:00. The death eaters are conquering Hogwarts and Voldemort kills Snape. This moment has an average sentiment is -1 which is the lowest value in the harry potter movies.

Harry Potter fans know that there is a world of difference between the magical books and their respective film adaptations. While the Potter movies are nostalgic and possess a special charm of their own, there is a huge amount of detail that doesn't translate from the page to the screen. What is clear from the sentiment profile is that both are built to leave the reader and watcher in the grey area because there is a very sad moment and lot emotional up and down at the end of every books and movies. The most important events are present of course in both: in book 1 the second saddest moment is the chess game, which is also the saddest moment in movie 1. It’s possible to find a lot of parallels between them.

In conclusion, we found an efficient way to detect and investigate the sentiment moment in the books and movies. We double checked the most sentimental moment and the turning points of the books in the movies and vice versa. It allowed us to understand more about how a movie is structured and why these movies are so passionate.