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Emotion Based Book Recommendation System

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Abstract

Emergence of the internet and the latest technologies have made searching for books easier than ever. Especially, all the platforms we encounter such as online book stores, e-commerce sites, book cataloging sites have some sort of recommendation engine embedded to them. The goal of book recommendation is to find us good books to read easily by filtering out large bulks of data. Most book recommendation systems we have these days are personalized and aligned with the readers' interests. However, there is still a gap in personalization and emotions driven book recommendations. There is no book recommendation system which provides suggestions based on the user's emotional state. Books have a huge impact on humans. Not only because they provide us knowledge but also they can easily stir emotions within us. And books are widely used for relaxation, mood regulation, relieving stress and to maintain a healthy mental and physical state. Hence, it is much better and beneficial to the user to take the emotional aspect into account when making book recommendations. Not only the lack of emotion driven book recommendation systems, most of the existing systems also have developed to filter out the books based on higher average ratings, genres, social trends and things like that. Average rating is calculated based on the readers who have tried the book and given their ratings for it. Although the number often reflects the positivity or the negativity of the reader's opinion, it fails to elaborate on what the reader's actual sentiment or feeling about the book. It is almost never taken into account when making the recommendations too. Therefore, this research intends to address these gaps by developing an emotion-based book recommendation system and to introduce an algorithm which is capable of extracting the sentiment embedded in the user reviews. The research will be carried out using state-of-the-art technologies such as deep learning and natural language processing and as the outcome of the project, a prototype will be implemented using cutting edge pythonic frameworks.

Keywords : Deep Learning, Natural Language Processing, Opinion Mining, Recommendation Systems