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Visualizing and browsing through movies according to their emotional signature

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Various websites exist that provide information about movies, e.g. actors, rating, title, keywords, and we know academic researchers were developed systems to explore, browse and visualize movies based of their contents or emotions by analyze the data, subtitles for example.
In the current work, we aim at providing a way to allow users to view and browse through a set of movies according to the movies' elicited emotions as inferred from the movies' online reviews of IMDB web site. We build on this work and introduce a novel visualization method for viewing and browsing movies according to their multidimensional emotional properties.
We aim to design a process that would be generalizable and allow viewing and browsing through multiple items according to their emotions, whether they are movies, music or bought goods. The contribution of the current work will be three-fold:

- A new way to browse movies according to their conveyed emotions
- A novel method to visualize multidimensional emotions, visualizing both the low-level details of each item and the high-level details of the entire dataset
- A pipeline (methodology) to enable analyzing and visualizing emotions of others datasets

We use different techniques in this research, starting with analyze the data and convert it to Plutchik's theory of emotions (this already done by previous research and we use the data), then we normalize the data to be normal distribution, dimension reduction, visualization and interaction.

Pipeline Flow