RESULT, ANALYSIS AND OBSERVATIONS

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Link for Amazon Fine Food review dataset -

s3://document-summarization-using-lsa-textrank/food-reviews-dataset/

Link for Amazon review dataset -

s3://document-summarization-using-lsa-textrank/amazon-reviews-dataset/

Link for the output files:

LSA -sentences output with Amazon Fine Food Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_LSA_Food_Review_Dataset/

LSA -sentences output with Amazon Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_LSA_Amazon_Review_Dataset/

LSA -words output with Amazon Fine Food Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_LSA_words_Food_Review_Dataset/

LSA -words output with Amazon Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_LSA_words_Amazon_Review_Dataset/

TextRank output with Amazon Fine Food Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_TextRank_Food_Review_Dataset/

TextRank output with Amazon Review Dataset

s3://document-summarization-using-lsa-textrank/Outputs_TextRank_Amazon_Review_Dataset/

Github Link for the full project along with datasets and the output folders-

https://github.com/kdivyarsha/text-summarizer

Below are the logs observed for the data file B0033YXSHW.txt

| Experiment Number | Parameters Chosen | Results |
|----------------------|--|---|
| 1 | LSA Extraction of summary from sentences | [Concept 1][Sentence 1]: [' It had flakes, oats and these chewy, small, square pear things that were dusted with chocolate but turning white'] [Concept 1][Sentence 2]: [' I even tried it as a dry snack and after my first bite, no more'] [Concept 1][Sentence 3]: [" I haven't picked it apart to see what it is, because I don't much care, and it puts me off of buying any more"] [Concept 1][Sentence 4]: [" Somehow, I don't think it's going to be much of a success"] [Concept 1][Sentence 5]: [" More important, there's something in it that feels like large grit"] |

| 2 | LSA Abstraction of summary from keywords | [Concept 1] :['dusted', 'flake', 'turning', 'white', 'thing'] |
|---|---|---|
| 3 | TextRank Number of Iterations :10 Number of Sentences : 10 | Rank: 1.23 Sentence: [' It had flakes, oats and these chewy, small, square pear things that were dusted with chocolate but turning white'] |
| 4 | TextRank Number of Iterations : 20 Number of Sentences : 10 | Rank: 1.44 Sentence : [' It had flakes, oats and these chewy, small, square pear things that were dusted with chocolate but turning white'] |
| 5 | TextRank Number of Iterations : 30 Number of Sentences : 10 | Rank: 1.48 Sentence : [' It had flakes, oats and these chewy, small, square pear things that were dusted with chocolate but turning white'] |
| 6 | TextRank Number of Iterations :35 Number of Sentences : 10 | Rank: 1.49 Sentence : [' It had flakes, oats and these chewy, small, square pear things that were dusted with chocolate but turning white'] |
| | | |

Analysis from the log file:

As we can clearly observe, the rank for the output increases as the number of iterations in textrank increases. This means as we run for a higher number of iterations, the summary output given by the text rank becomes more accurate and close to the human summary of text.