Understanding the Effects of Narrative Trajectories on the
Popularities of Online News Articles

Raiyan Abdul Baten

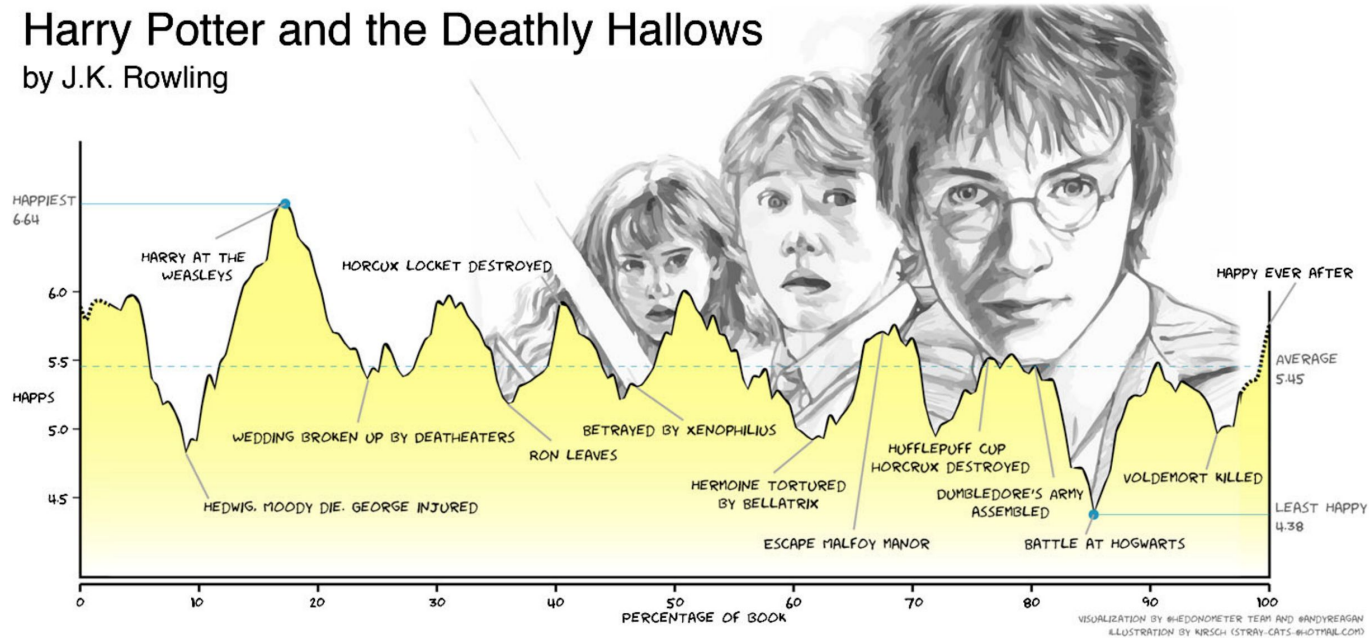PhD student, ROC HCI Lab

University of Rochester

rbaten@ur.rochester.edu

Date: December 11, 2018

Overview

- Motivation

- Data Collection

- Preprocessing

- Analysis

- Results

Motivation

Reagan, A.J., Mitchell, L., Kiley, D., Danforth, C.M. and Dodds, P.S., 2016. The emotional arcs of stories are dominated by six basic shapes. *EPJ Data Science*, *5*(1), p.31.

Motivation

M. I. Tanveer, S. Samrose, R. A. Baten, and M. E. Hoque. Awe the audience: How the narrative trajectories affect audience perception in public speaking. In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI), Montreal, Canada, April 2018

Dataset

Dataset

- **39,644** articles with urls

- 58 features (I don't use them!)

- **Target attribute:** Number of shares

Dataset Pre-processing: Stage 1

Not even Frosty the Snowman can escape winter pranks.

YouTube jokester channel Rip Films returns with its annual scary snowman prank on holiday shoppers. And, this year, Frosty wants to make children cry.

BY LAURA
VITTO

NOV 25, 2013

SEE ALSO: 50 Amazingly Epic Pranks

The guys slipped back into their snowman suit and stood completely still on the streets of Boston, waiting to frighten unsuspecting passersby. What starts as joy at the sight of an innocent-looking snowman quickly turns to screams and yelps as the white figure lurches.

Add snowmen to the list of things to fear this holiday season. Just put it after fruitcake and awkward conversations with relatives.

BONUS: YouTube Picks the 10 Best April Fools' Prank Videos

YouTube's Top 10 Prank Videos

IBM Watson Tone Analyzer

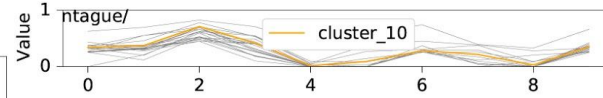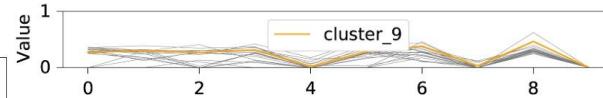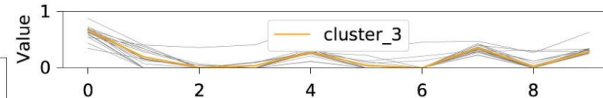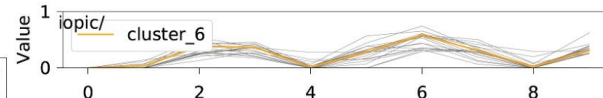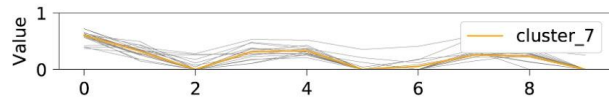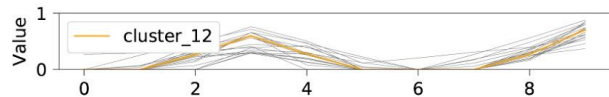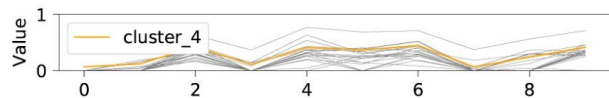*"#ThisPhone is a useless, stupid waste of money."*
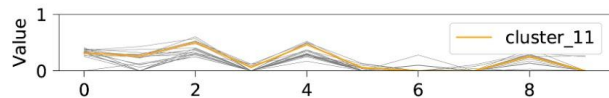
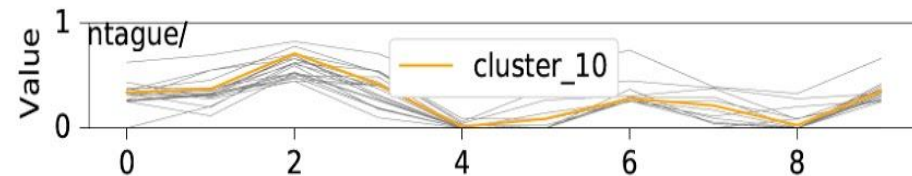Anger: 0.81

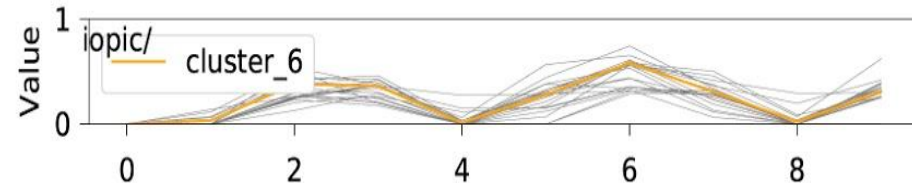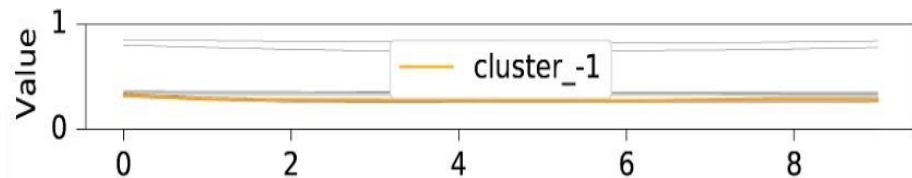# Dataset Pre-processing: Stage 2

- Extract sentence-wise tones (13 tones each)

- Smoothen the signals

- Interpolate to have a length of 10 unit lengths

DBScan Clustering: Tone 'joy'
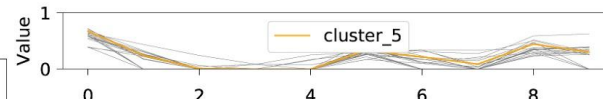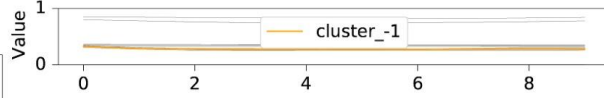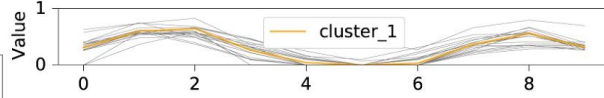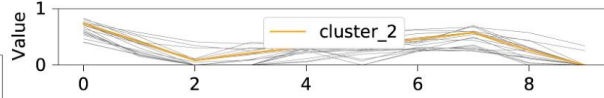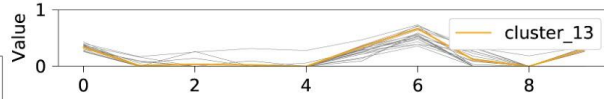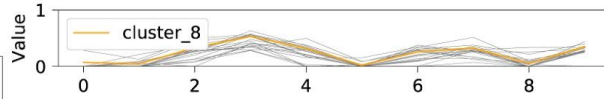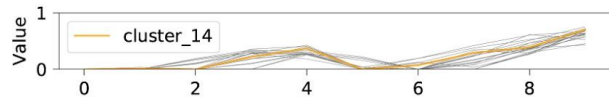
Results

- Cluster 1 vs cluster 6
  - P-value: 0.02

- Cluster 1 vs cluster 10
  - P-value: 4.39e-09

*Both p-values are Bonferroni corrected

Insights

Seesaw emotions ✓
end on a positive note ✓

=> People will share your article more! 😊

Thank You!