Shifting Tone of a Body of Text

Cole Hollant

Adviser: Stefan Méndez-Diez, Robert McGrail, Kerri-Ann Norton

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1. Abstract

- Natural language processing
  - Tone recognition: label input text
  - Tone alteration: align text with a different category
- Plutchik's basic emotions
  - Joy, trust, fear, surprise, sadness, disgust, anger, anticipation

2. High Level Plans

- Build out datasets / lexicons
  - Sourced vs created
    - NRC Emotion / Affect lexicons
      - Unigram limitations
    - Twitter scraper
    - Scraped thesaurus
- Make different models
  - Arbitrary replacement (control)
  - Latent Dirichlet Allocation
  - Neural nets?
    - Potential n-gram benefits
- User testing

4. Latent Dirichlet Allocation

- Generative statistical topic model
  - document → set of topics
- Bayesian inference for topic mixture
- Soft clustering
  - fuzzy membership
  - topic reduction

4. Current Progress

- Thesaurus
- Lexicons
- Website
  - Frontend
  - API
  - Server setup, etc

Next Steps

- More server configuration
- Build LDA model
- Alter data visualization

5. Thank you!

Here are links if anyone is interested

- Frontend: sproj.colehollant.com
- Backend: sproj.api.colehollant.com
- Version control: my github

References

[1] first name last name, *title*, publisher, city, year.

[2] _____, *title*, journal name **volume number** (year), starting page–ending page.

[3] _____, *title*, `webaddress`.

[4] _____, *title*. arXiv address.