Thesis Topic Presentation

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Given a debate topic, and a paragraph, is that paragraph FOR or AGAINST the debate topic?
What this problem entails

- Discourse analysis
- Information extraction
- Contradiction detection
- Relationship extraction
- Sentiment analysis
Previous Work

- Stance Detection in Congressional Floor Debates
- Stance Detection in Ideological On-Line Debates
- Dimensions of Argument in Social Media
Approach 1: Emotion Detection

- Look at emotion detection in text, and its applicability in stance detection
- As a first step, can look for indicators that characterize a paragraph as emotional: 'must', 'heathen', 'morally', etc.
Approach 1: Emotion Detection

- Advantage: New field. Links stance and emotion
- Disadvantage: Hard to accumulate data
- Debates are unemotional
- Survey?
Are our children masters or slaves of their smartphones?

- There’s a word I like for kids of the current generation: “screenagers”. It always seems that those whippersnappers are always staring into computer, tablet, and smartphone screens.

- SLAVES

- The author is clearly emotionally attached to his argument
Are our children masters or slaves of their smartphones?

- It is often difficult to pry children away from their gadgets -- whether in the classroom, when out for a meal or in social situations. These sort of behaviors, replicated by others around them including parents, can run the risk of the next generation lacking in necessary social skills.

- SLAVES

- This is a logical argument. Not emotional
Approach 2: Text Analysis

- Bag-of-words
- TF-IDF
- LSA/pLSA: Detect keywords identifying stance
- N-gram matching
Approach 2: Text Analysis

- Advantage: A major step in semantics.
- Disadvantage: Similar work has been done before

- Semantic world-view? Storybook?
- Textual entailment?
Are our children masters or slaves of their smartphones?

- It is often difficult to pry children away from their gadgets -- whether in the classroom, when out for a meal or in social situations. These sort of behaviors, replicated by others around them including parents, can run the risk of the next generation lacking in necessary social skills.

- Post-PC technology like smartphones are purely relationship-centric. They don’t work or make any sense without the underlying relationships. Kids know what they’re doing.

SLAVES
- 'risk'

MASTER
- 'relationship'
- 'know'
Are our children masters or slaves of their smartphones?

- Children are slaves to their smartphones because we've made them so. Mobile devices offer an extension to social groups through texting, email and, more recently, social networks such as Facebook and Twitter. This is in itself not a bad thing -- the Internet can bring us closer together and offers a plethora of opportunities later on in life for work and study.

- Can we use this to generate:
  - Internet
  - Smartphones
  - Devices
  - Social

- Links between these.
This House believes all nations have a right to nuclear weapons

- The nation-state is the fundamental building block of the international system, and is recognized as such in all international treaties and organizations. States are recognized as having the right to defend themselves, and this right must extend to the possession of nuclear deterrence. Often states lack the capacity to defend themselves with conventional weapons. This is particularly true of poor and small states. Even wealthy, small states are susceptible to foreign attack, since their wealth cannot make up for their lack of manpower. With a nuclear deterrent, all states become equal in terms of ability to do harm to one another.

- Nation
- State
- Weapons
- Defend

- Example:
  - State.hasRight(defend)
  - Weapon.defends
  - Weapon:
    - Conventional
    - Nuclear
    - ...
This House believes criminal justice should focus more on rehabilitation.

- Rehabilitation is the most valuable ideological justification for imprisonment, for it alone promotes the humanising belief in the notion that offenders can be saved and not simply punished.

- While some rehabilitative programmes work with some offenders (those who would probably change by themselves anyway), most do not.

- Clearly shows contradictions.

- Textual Entailment?
Combining Both Approaches

- Emotions related to extracted keywords
- Keywords used to detect stance
- Emotions used to detect bias

- Multilingual/Unsupervised?
- Answering the 'Why?' question?
Applications

● Parallel Corpora
  - Multilingual argument detection and classification
  - Translated Congress data.
● Feature Extraction
  - Review argument detection
● Semantic Web
  - Getting the 'point' of a search/website
References

• Detecting Emotion from Text – Kaitlyn Mulcrone (UMM CSci Senior Seminar Conference, 2012)

• Recognizing stance in Ideological On-Line debates – Swapna Somasundaran, Janyce Wiebe (Proceedings of the NAACL HLT 2010 Workshop on Computational Approaches to Analysis and Generation of Emotion in Text)

• Language as context for the perception of emotion – Lisa Barrett, Kristen Lindquist, Maria Gendron (TRENDS in Cognitive Sciences, Vol. 11, No. 8, 2007)

• Emotion modulates language production during covert picture naming – Jose Hinojosa et. al. (Neuropsychologia 48, 2010)

• Dimensions of Argumentation in Social Media – Jodi Schneider, Brian Davis, Adam Wyner (EKAW 2012)