New Event Detection

CS 4624 Virginia Tech Spring 2015

Alex Cummins, Andrew Ciambrone, Beakal Haile, Quinn Liu
Purpose

- Automatically detect when a new world event has occurred based online news articles.
- Reduce user bias
- Increase confidence that an event has occurred.
- Assist IDEAL project
Approach

- Collect RSS feeds from respected news sources around the world.
- Create groupings of articles utilizing natural language processing techniques.
- Rank the groupings based on their perceived strength.
- Provide a ranked list to the end user.
Ranking Criteria

- Number of articles
- Distinct publishers
- Distinct dates
- Parameters are imperfect
Moving Forward

- Scraper will continue to collect data
- Client will train the algorithm utilizing machine learning techniques.
Event Description

Radioactive drone on Japan PMs roof
Police Man planned to attack churches
Russian hackers read Obamas unclassified emails last year NYT
Egypt sentences Morsi to 20 years in prison over killing protesters
Michael Browns family We do not accept his selfdefense
## Results

<table>
<thead>
<tr>
<th>Certainty of Event Occurrence</th>
<th>Article Count</th>
<th>Publisher Count</th>
<th>Date Count</th>
</tr>
</thead>
<tbody>
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<td>3</td>
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</tr>
<tr>
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<tr>
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<td>3</td>
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</tbody>
</table>
1. White House moves to take Cuba off Terrorism List
2. US plans stiffer rules protecting retiree cash
3. Rival Factions in Ukraine Are Urged to Withdraw Heavy Weapons
4. Boko Haram Abducted Nigerian Girls One Year Ago
5. Israeli airstrikes target alleged militants on border
Acknowledgements

Mohamed Magdy mmadgy@vt.edu
IDEAL project  http://eventsarchive.org/
Questions?