Crowdsourcing annotations to study instructor intervention in MOOC discussion forums

23 Feb 2018
Quick Recap

Task 1.1

Inter-Annotator-Agreement

Simplify tasks - make sure turkers assign correct categories to correct posts

- Marking
- Categorization

Fleiss’ Kappa scores

<table>
<thead>
<tr>
<th>( \kappa )</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0</td>
<td>Poor agreement</td>
</tr>
<tr>
<td>0.01 – 0.20</td>
<td>Slight agreement</td>
</tr>
<tr>
<td>0.21 – 0.40</td>
<td>Fair agreement</td>
</tr>
<tr>
<td>0.41 – 0.60</td>
<td>Moderate agreement</td>
</tr>
<tr>
<td>0.61 – 0.80</td>
<td>Substantial agreement</td>
</tr>
<tr>
<td>0.81 – 1.00</td>
<td>Almost perfect agreement</td>
</tr>
</tbody>
</table>
Task 2.1 Grouping Categories

1. Instructor requests justification
2. Instructor resolves/concludes the discussion
   a. Agreement/Disagreement
   b. Generic answer
   c. Appreciation
   d. Completion
3. Instructor elaborates/brings in NEW material
   a. Clarification
   b. Extension
   c. Juxtaposition
   d. Refinement
   e. Reasoning Critique
4. Instructor simply paraphrases or summarizes
5. Only social/course-related discussion
Task 2.1

Thread type: Lecture

Thread Title: Some examples of marriages movies

POST #6 by User #4

When Anthony said 'Brief Encounters' I thought 'Close Encounters (of the Third Kind)', and it made perfect sense to me. It took me a while to realise the misunderstanding. I didn't see the movie 'Brief Encounter' yet but now I'm very curious about it. At first it seemed very difficult to think of a 'marriage film' but know they keep popping up in my mind. Thinking about 'Close Encounters of the Third Kind' (a film I really don't like), at the surface it seems like a sci-fi movie but it's actually about a guy that feels bored with his family and wants to experience something new, to encounter someone who shares his point of view. Not the aliens! but the other woman with whom he feels useful and at home. Does it sound too far-fetched?

Upvotes: 2

Instructor's post: Haven't thought about 'Close Encounters' in a long time, but your description of the couple's relationship rings a bell. I wonder about other classic 'genre' films (SciFi, horror, suspense, crime, historical/biopic, etc) that are also about marriages, especially marriages where something goes very wrong: 'Poltergeist' 'The Incredible Shrinking Man' 'The Incredible Shrinking Woman' 'Gaslight' 'The Shining' 'The Man Who Knew Too Much' 'The Godfather' 'The Sopranos' (TV) Come to think of it, 'Orson Welles and Marriage' might be a master's thesis for someone, if it hasn't been already, perhaps many times over... -- 'Citizen Kane' -- 'The Magnificent Ambersons' -- 'The Stranger' 'It's a Wonderful Life' (like Kane, has this film been watched and written about too much to be part of our category?) 'Superhero Marriages' could be another multimedia dissertation for someone... Or a lighthearted essay... Or a self-help best-seller... 'The Incredibles' 'Lois and Clark' (TV series)
### Average Kappa:
0.597484993281

### Std Dev:
0.323214753095

### Pearson Correlation:
0.579414083703
Methodology for analysing these tasks

Task 1.1

Most Kappa agreements in range of 0.55- 0.65 over 4 humanities courses (Warhol, Marriage and Movies, Maps, organalysis lectures)

Analysis:-

Kappa may not be a true measure. E.g. multiple posts by same user(solve in post-processing, or when forwarded to task2.1).

Highly susceptible to language used in course (smaller batches(~5 max for this case), pay increase is useless)

Issues to look for: Faulty nested replies(validate using task 2.1), effects of not seeing categories
Methodology for analysing these tasks

Task 2.1

To evaluate using kappa and against On-site annotators, using Pearson correlation.

Analyses/Issues:-

Interpretation of tone without context is subjective e.g. inclusion of smileys

Graph correlation coefficients/kappa within categories to identify problem points in category clarity.

Task 2.2(finer grained categories + None of the above ) as a validation task
Next steps

To analyse the annotations for both tasks so far

Run Task 2.2 (Final task - finer grained annotations), are they satisfactory?