Recommending the best deliberative act in discussions

Deliberation is the type of discussions where the aim is to find the best choice from a set of possible actions.

Deliberative Strategy is a sequence of moves that participants take during the discussion. Such a sequence is effective if it leads to a successful discussion.

Recommending the best deliberative move according to an ‘effective strategy’ is the ultimate goal of this study.

Towards this goal two fundamental research questions are addressed in the paper:
(1) How to model deliberative discussions?
(2) How to operationalize the model?

Modeling deliberative strategies on Wikipedia discussions

New model for deliberative discussions on Wikipedia is derived statistically using several types of metadata that people use to describe their moves on Wikipedia talk pages.

Webis-WikiDiscussions-18 corpus is the basis of the derivati-

Corpus Component | Instances
--- | ---
Page | 5 807 046
Discussion | 5 941 534
Discussion template | 144 824
Turn | 20 816 860
Registered users | 739 244
Turns by registered users | 10 926 670
Turns by anonymous user | 9 890 190
Tag | 99 889
Shortcut | 425 563
Inline template | 3 382 443
Links | 4 824 085
Turns with tag and shortcut | 2 347
Turns with tag and inline template | 61 521
Turns with shortcut and inline template | 170 065

Model Derivation is done based on the following steps:

(1) Metadata inspection
- User tag
- Shortcut
- Template

(2) Concept origination
- summary
- weak support
- overall
- conclusion
- sorry
- summarization
- apologize

(3) Concept categorization
- example
- source
- reference
- agree
- strong support
- supporting evidence
- support

Operationalizing the deliberative strategies model

The task is identifying the discourse act, relation, and frame of each turn in a deliberative discussion.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Category</th>
<th>#Turns</th>
<th>F1-Score</th>
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<td>Discourse act</td>
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<td></td>
<td>Providing evidence</td>
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<td>Asking a question</td>
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<td>Neutral point of view</td>
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<td>Dialogue management</td>
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