

Dialog-Based Online Argumentation: Findings from a Field Experiment

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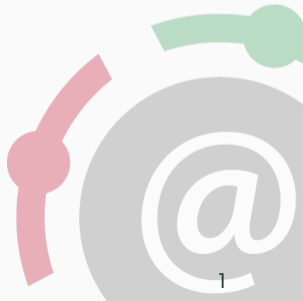
NRW-FORTSCHRITTSKOLLEG
ONLINE-PARTIZIPATION



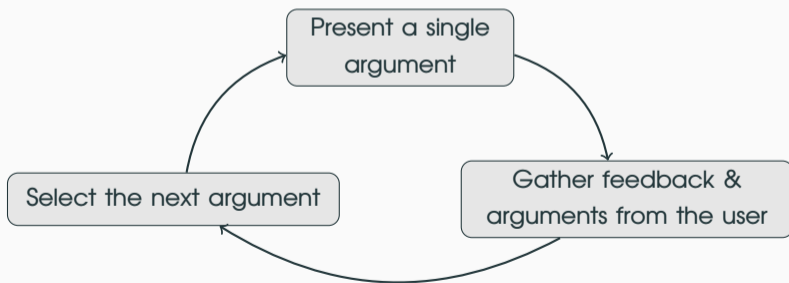
Fachhochschule
für öffentliche Verwaltung
NRW



- Exchange of opinions/arguments among users
- Systems for online argumentation:
 - Forums
 - Pro- and contra lists
 - Argumentation Maps
- Lack of structure
- High degree of redundancy as well as balkanization
- Trained users are necessary



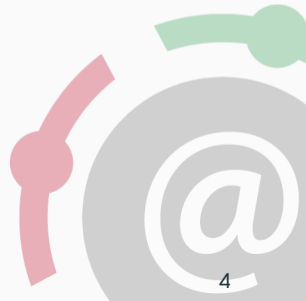
- Idea: simulate a real-world discussion
- System is a representative of all those users that have already participated
- Recycle text input given by users
- It conducts a dialog with the current user:



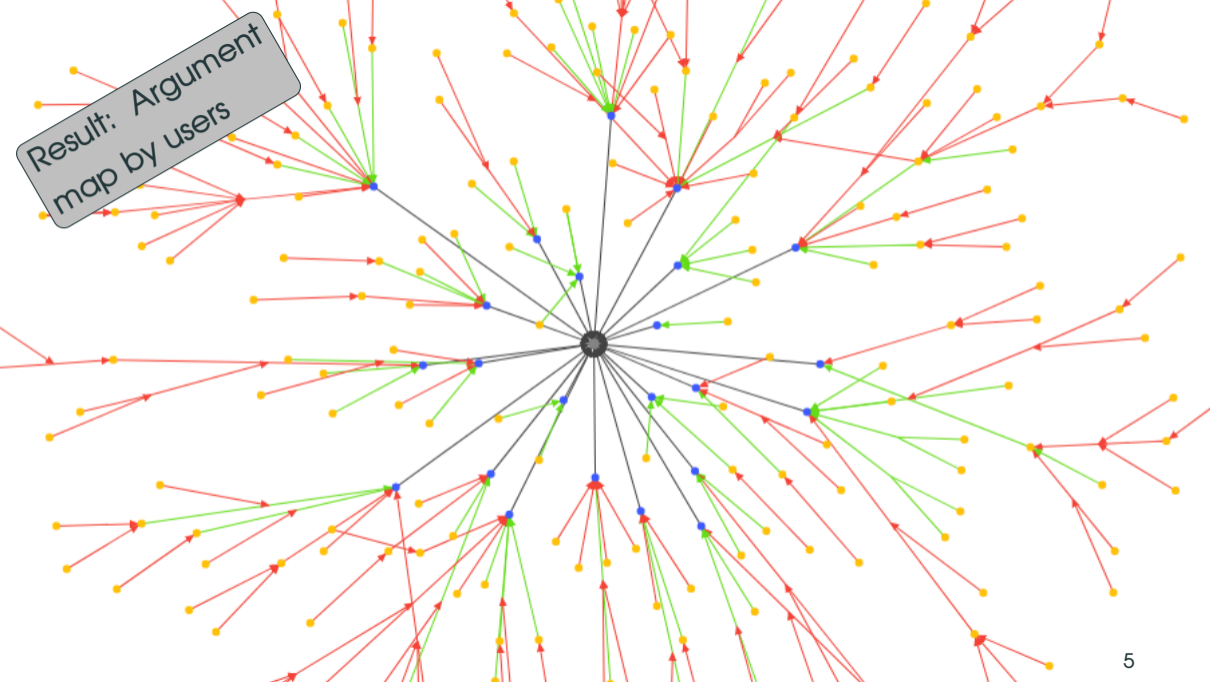
Demo: D-BAS



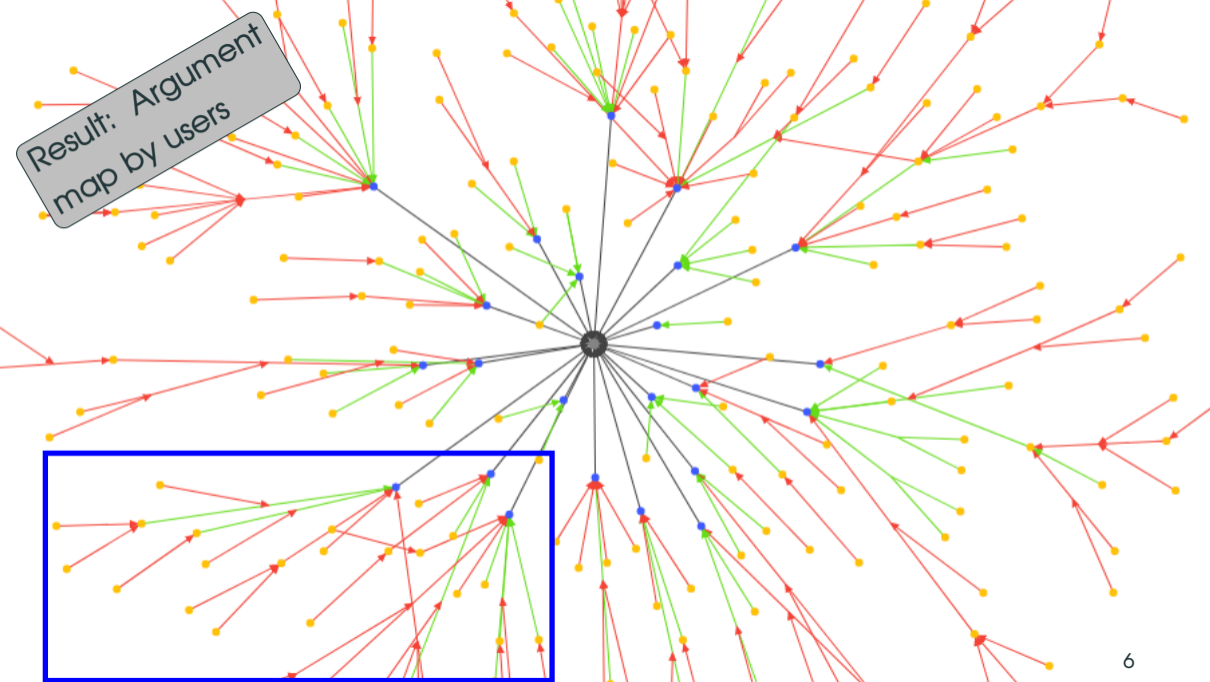
- Invited all computer science students via mail
- Topic: „How to deal with the increased number of students?“
- Started with: 2 Positions, 2 Pro-/contra-arguments each
- 318 visitor, 137 returned at least once
- 47 registrations (11 ♀, 36 ♂)
- 35 contributed at least once (6 ♀, 29 ♂)

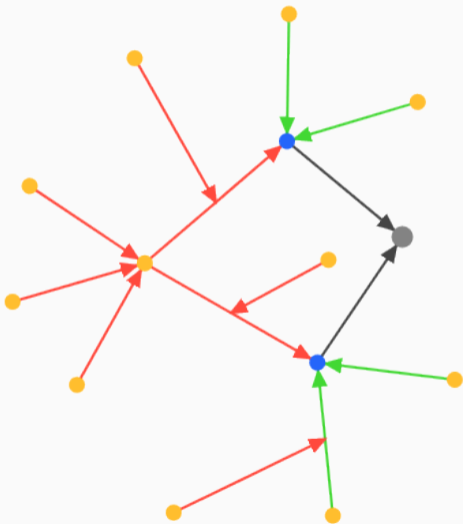


Result: Argument map by users



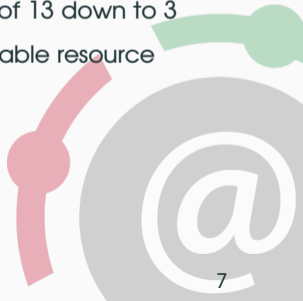
Result: Argument map by users

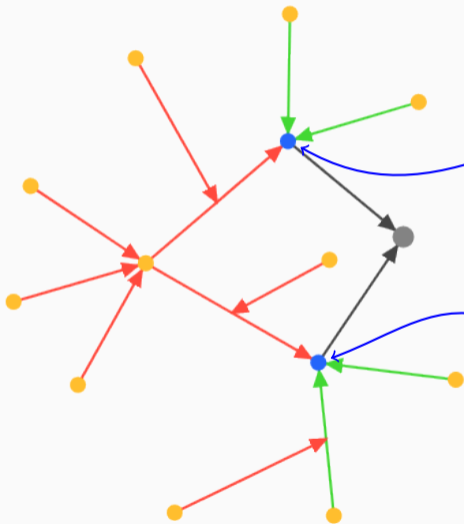




Advantages:

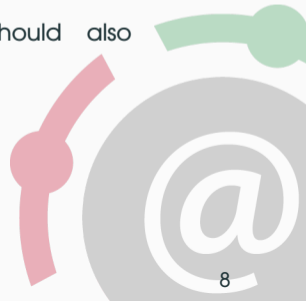
- Highly structured
- Reduced the depth of 13 down to 3
- Statements as a reusable resource

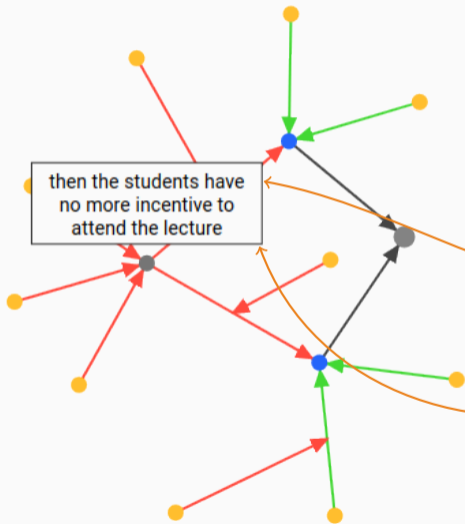




Lecture notes should be put online before the lecture so that students can prepare themselves

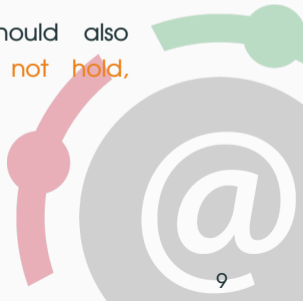
Mathematical scripts should also contain proofs





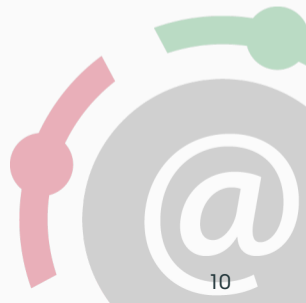
Lecture notes should be put online before the lecture so that students can prepare themselves **does not hold, because ...**

Mathematical scripts should also contain proofs **does not hold, because ...**



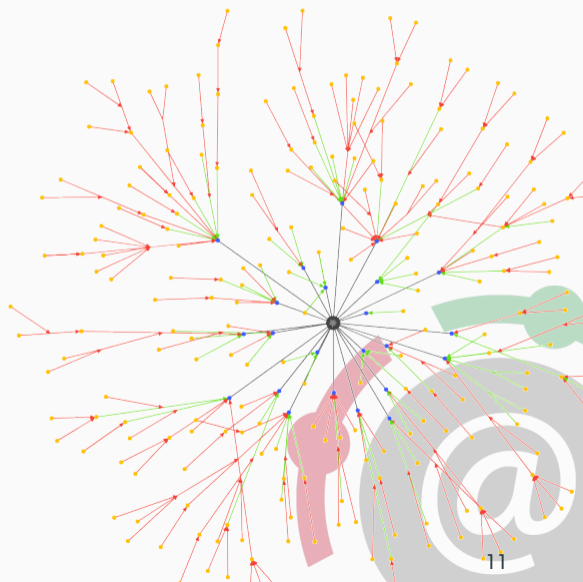
Summary of the Discussion

- 22 positions added
- 233 statements added
- 235 arguments (172 🗣️, 63 📄)
- Reactions
 - 200 Undermines
 - 137 Undercuts
 - 56 Rebuts
 - 44 Supports
 - 19 Show me another argument
 - 104 Go one step back



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Feedback Option

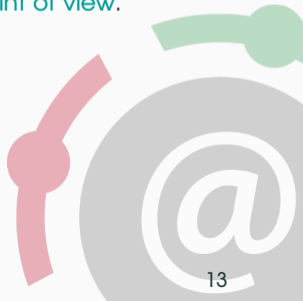
In my opinion, **her statement** is wrong and I would like to argue against it.



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Feedback Option

In my opinion, **her statement** is correct, but it does not support **her point of view**.



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Feedback Option

In my opinion, **her statement** is correct and it supports **her point of view**. However I want to defend **my point of view**.

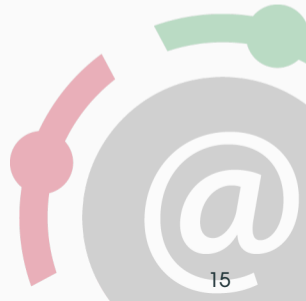


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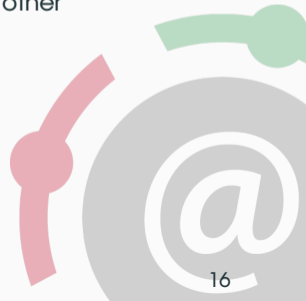
In my opinion, **her statement** is correct and it convinced me.



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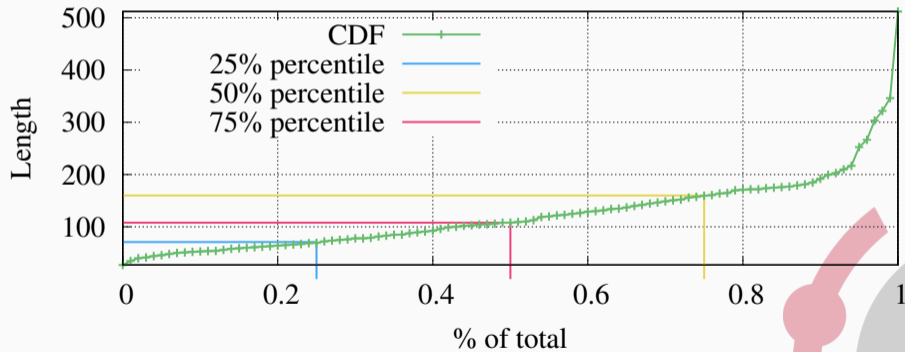
Feedback Option

Show me another argument. / Go one step back. (The system has no other counter-argument).



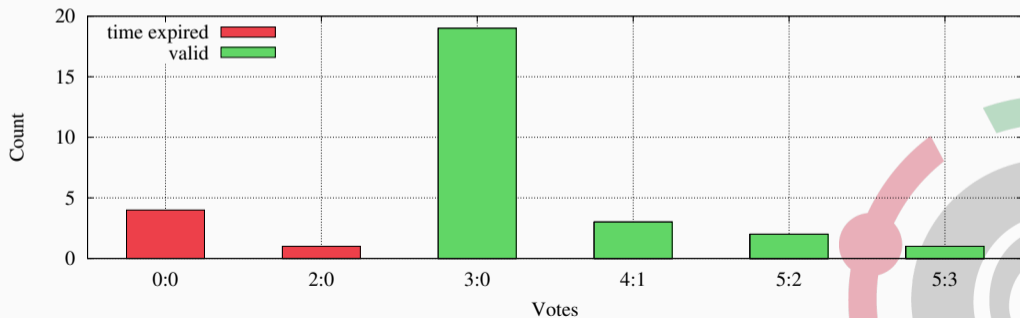
Length of Statements

Almost all statements are shorter than a Tweet (then 140, now 280 characters)

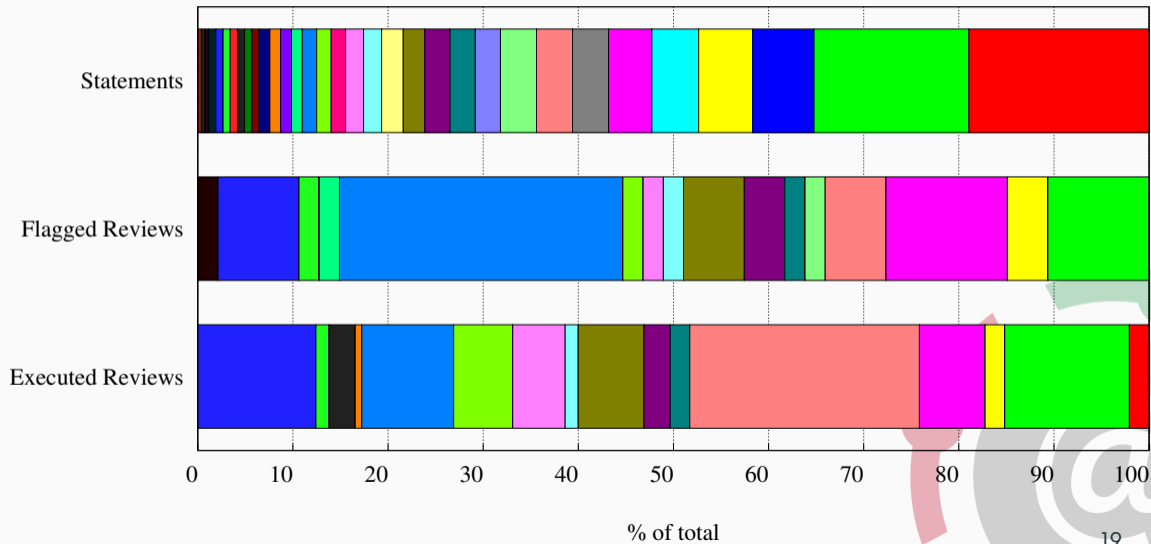


Decentralized Moderation: Votes

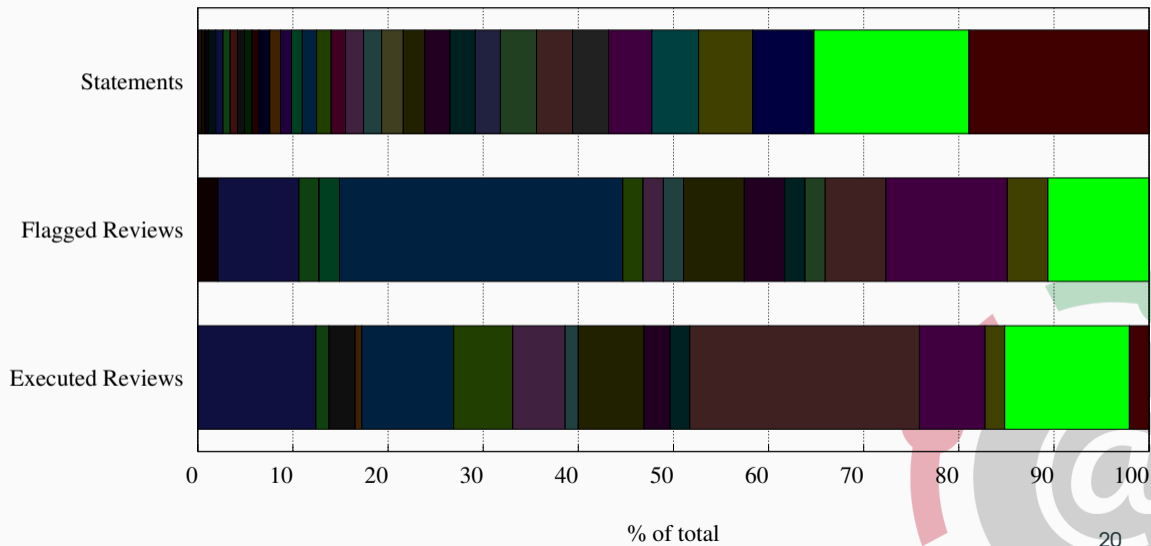
- Queues: Delete, Edit, Duplicate, Optimization, (Split & Merge)
- Consensus takes three leading votes or a limitation of 5
- 47 flagged statements (25 edits, 5 duplicates, 17 optimizations)



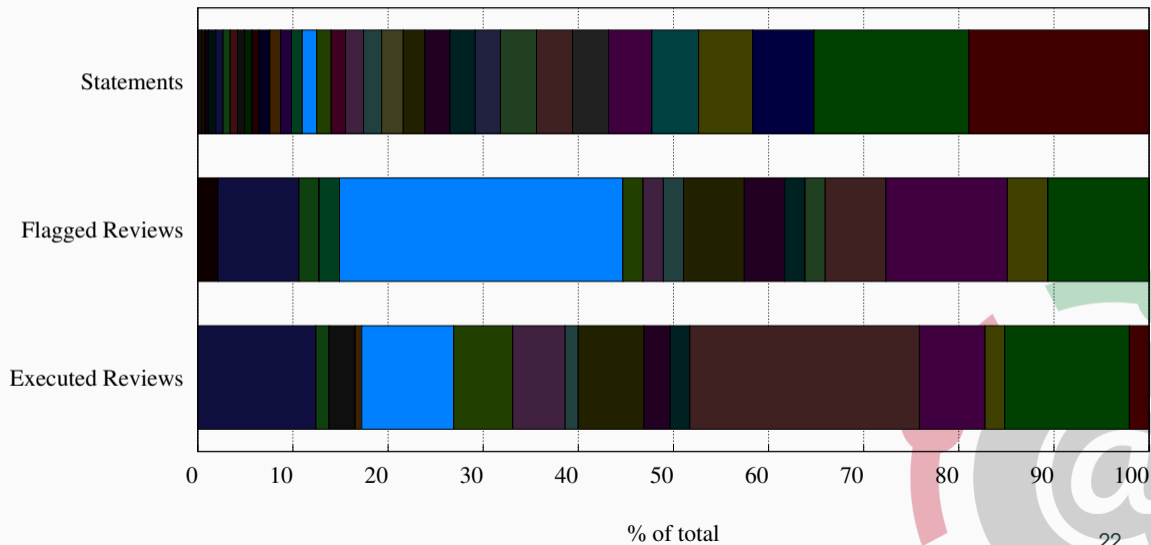
Decentralized Moderation: Powerusers?



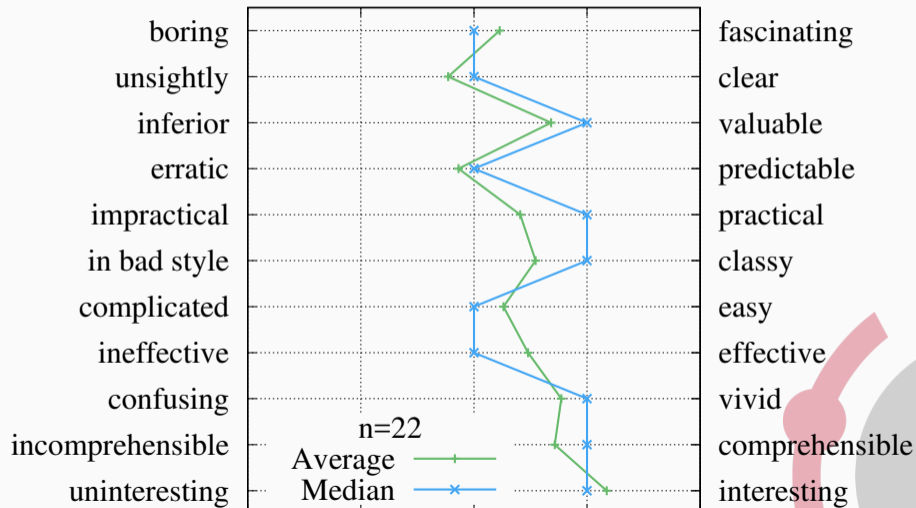
Decentralized Moderation: Interested in everything!



Decentralized Moderation: (S)he likes to flag!



Questionnaire: Word Pairs

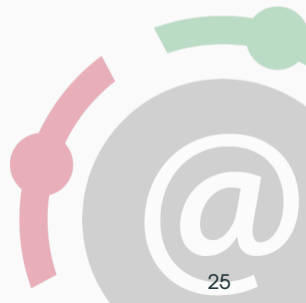


Conclusion:

- D-BAS as novel approach for large-scale online discussions
- Decentralized moderation for online argumentation
- Satisfied participants

Future Work:

- Experiments: real environment (at the local level)
- Reusable statements (Alexander Schneider)
- discuss: embed D-BAS into websites (Christian Meter)





D-BAS

Dialog-Based Argumentation System

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<https://dbas.cs.hhu.de>



<https://github.com/hhucn/dbas>

Questionnaire: Statements

