

# New ideas for citizens' involvement on a local level

## Perspectives of Open Government in Germany

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für öffentliche Verwaltung  
NRW



## Roadmap:

1. Our Background
2. Techniques participation on a local level
3. Novel approach for online discussions



From an idea to an institute:

- 2012 - Internet-mediated cooperative norm-setting in the university
- 2014 - Graduate School on Online-Participation
- 2016 - Duesseldorf Institute for Internet and Democracy
- 2017 - Center for Advanced Internet Studies
- 2017 - German Internet Institute

- University Duesseldorf & University of Applied Sciences for Public Administration and management of North Rhine-Westphalia
- Funded by the Ministry of Innovation, Science and Research in North Rhine-Westphalia
- 17 professors, 12 full-time and 4 associated PhD Students from the fields of Computer Science, Business Studies, Law, Sociology, Communication Studies and Political Science
- Practitioners:
  - Cities & Municipalities: Aachen, Bonn, Hilden, Cologne, ..
  - Service Providers: Liquid Democracy, wer denkt was, zebralog, ...

How and under what conditions can the potential of online participation in the political participation process at the local level be systematically developed, practically applied and scientifically evaluated?



How and under what conditions can the potential of online participation in the political participation process at the local level be systematically developed, **practically applied** and scientifically evaluated?



Exemplary research questions from computer sciences:

- How do we discuss online?
- How can we discuss online in a more structured and uniform way?
- Is there a way to analyze and categorize current text contributions from existing actions?
- How can we link given arguments and how can we reuse arguments as a resource?

## More about the local level:

- 396 municipalities (271 cities) in North-Rhine Westphalia
- 172 of them have done at least one process in the field of online participations
- 4 of them are working with us



## Processes in detail:

- Participatory budgeting
- Noise action planning
- Development planning procedures
- Rezoning of the municipal development plan
- Defect reports



Everytime **participants are effected** or even involved!  
Thats really important for online participation!



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But...what do have these **cities in common**  
(in relation to online participation)?



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But...what do have these **cities in common**  
(in relation to online participation)?

They are all using some kind of **forums** to offer a  
discussion platform for their citizens.



## Advantage:

- Very well-known
- Easy-to-use

## Disadvantage:

- No structure
- Scalability
- Redundancy
- Balkanization
- Hierarchy of posts



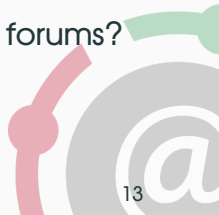
## Advantage:

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But if they are so bad, why do we even use forums?



## Pro&Contra Lists

### Advantage:

- Structure
- Redundancy
- Balkanization
- Hierarchy of posts

### Disadvantage:

- Structure
- Same as forum

## Argument Maps

### Advantage:

- Structure
- Scalability
- Rational

### Disadvantage:

- Ease of use



## Pro&Contra Lists

### Advantage:

- Structure
- Redundancy
- Balkant

## Argument Maps

### Advantage:

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### Disadvantage:

- Ease of use

We need a new alternative ... why don't we have systems, that act like a natural dialog between participants?

- Structure
- Same as forum

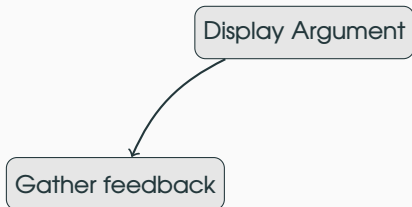


- Dialog-based approach
- Simulating a real world discussion
- The system is a representative of all those users that have already participated
- It conducts a dialog with the current user:

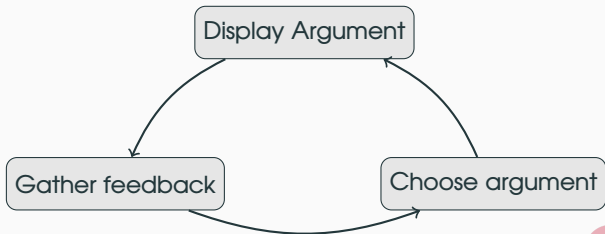
Display Argument



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## Short Demonstration

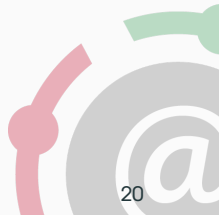
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## Town needs to cut spending

What is the initial position you are interested in?

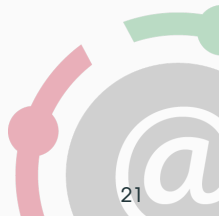
- We should cut the administration costs
- The city should reduce the number of street festivals
- We should shut down the university park
- None of the above! Let me state my own reason!



## Town needs to cut spending

What do you think about: we should shut down University Park?

- I agree
- I disagree
- I have no opinion, show me another argument

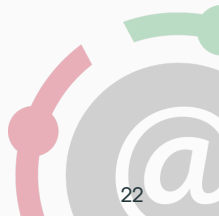


We should shut down university park

What is your most important reason why we should shut down University Park holds?

Because...

- Criminals use University Park to sell drugs
- Shutting down University Park will save 100,000 € a year
- None of the above! Let me state my own reason!



## Town needs to cut spending

We should shut down university park.

We should shut down university park, because criminals use university park to sell drugs.

Peter agrees that criminals use university park to sell drugs, but he claims to have a stronger statement for rejecting we should shut down university park. He says: this is the only park in our city.

What do you think about that?





# Town needs to cut spending

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Peter agrees that criminals use university park to sell drugs, but he claims to have a stronger statement for rejecting we should shut down university park. He says: this is the only park in our city.

What do you think about that?

- Wrong, his argument is false.
- Right, his argument is true.
- Right, his argument is true, but I do not believe that this is a argument for his point of view.
- Right, his argument is true and I do accept that this is an argument for his point of view. However, I have a much stronger argument for accepting my point of view.

## Town needs to cut spending

We should shut down university park.

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Peter agrees that criminals use university park to sell drugs, but he claims to have a stronger statement for rejecting we should shut down university park. He says: this is the only park in our city.

What do you think about that?

What is your most important reason for: It is false that this is the only park in our city?

- The city is planing a new park in the upcoming month.
- None of the above! Let me state my own reason!



## Town needs to cut spending

What is your most important reason for: It is false that this is the only park in our city?

- The city is planing a new park in the upcoming month.
- None of the above! Let me state my own reason!

Let me enter my reason!

It is false that this is the only park in our city, because...

park

**Parks are very important for our climate**

**This is the only park in our city.**

## Town needs to cut spending

What is your most important reason for: It is false that this is the only park in our city?

- The city is planing a new park in the upcoming month.
- None of the above! Let me state my own reason!

Let me enter my reason!

It is false that this is the only park in our city, because...

parks are

Parks are **very important for our climate**

## Town needs to cut spending

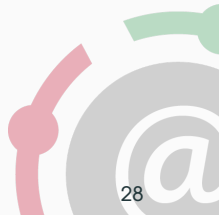
What is your most important reason for: It is false that this is the only park in our city?

- The city is planing a new park in the upcoming month.
- None of the above! Let me state my own reason!

Let me enter my reason!

It is false that this is the only park in our city, because...

parks are not the only green area in our city



## Town needs to cut spending

This is the only park in our city does not hold, because parks are not the only green area in our city.

Peter has a stronger statement for accepting this is the only park in our city. He says: parks are very important for our climate.

What do you think about that?

- Wrong, his argument is false.
- Right, his argument is true.
- Right, his argument is true, but I do not believe that this is a argument for his point of view.
- Right, his argument is true and I do accept that this is an argument for his point of view. However, I have a much stronger argument for accepting my point of view.
- I have no opinion. Show me another argument.

### Conclusion:

- Cities are really into online-participation
- Forums does not work for large-scale online discussion
- Dialog-based approaches increase the scalability and ease-of-use

### Future work:

- Embeddable in websites like newspapers and blogs
- First field experiment with cities & municipalities





**D-BAS**

Dialog-Based Argumentation System

**Tobias Krauthoff**

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**`https://dbas.cs.uni-duesseldorf.de`**

**or `https://goo.gl/2QQ521`**



## First Field Experiment

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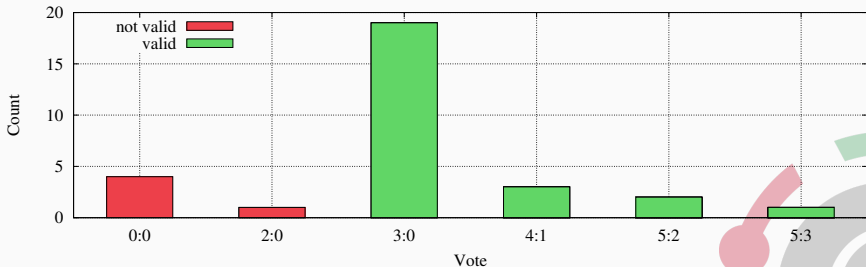
- 09. May - 28. May 2017
- Invitation via mail for all science students (>4000)
- Topic: „How to deal with the increased number of students?“
- Started with: 2 Positions, 2 Pro-/Contra-Arguments each
- 47 registrations (11 female + 36 male)
- 318 visitor, 137 returned at least once



# Decentralized Moderation

- Queues: Delete, Edit, Duplicate, Optimization, (Split & Merge)
- 47 flagged Statements: 25 Edits, 5 Duplicates, 17 Optimizations
- Consensus takes three leading votes
- Limitation of votes is 5

## Overview of reviews:



- Statements
- Positions
- Argument
- Premise
- PremiseGroups
- Conclusion
- Support
- Rebut
- Undermine
- Undercut

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Cats are small

I want a cat



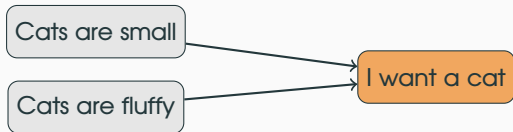
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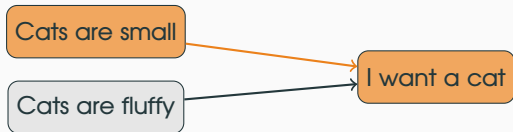
Cats are fluffy

I want a cat

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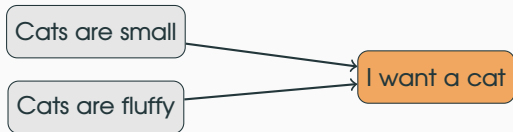
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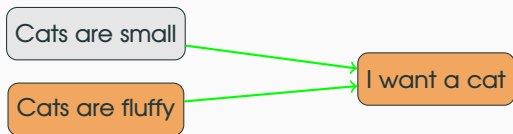
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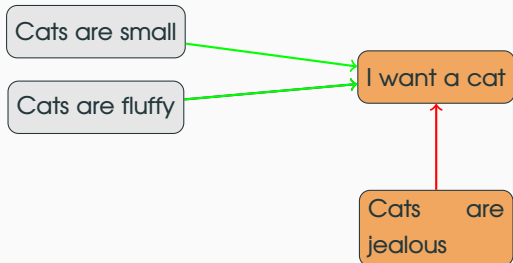
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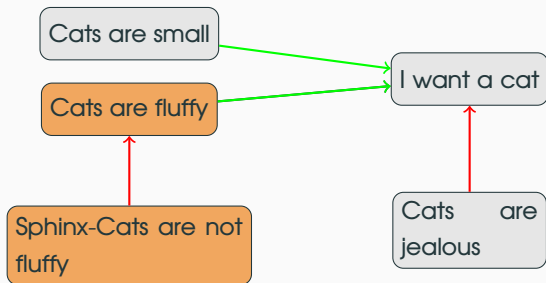
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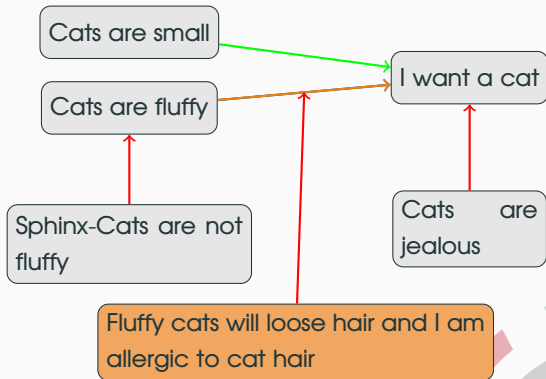
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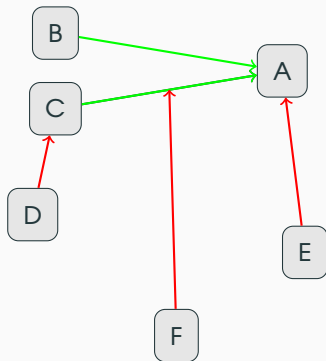
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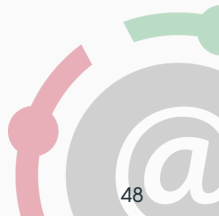


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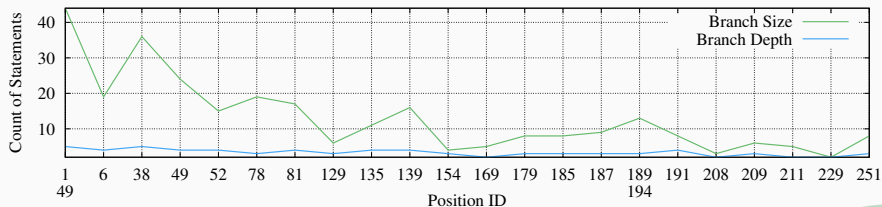




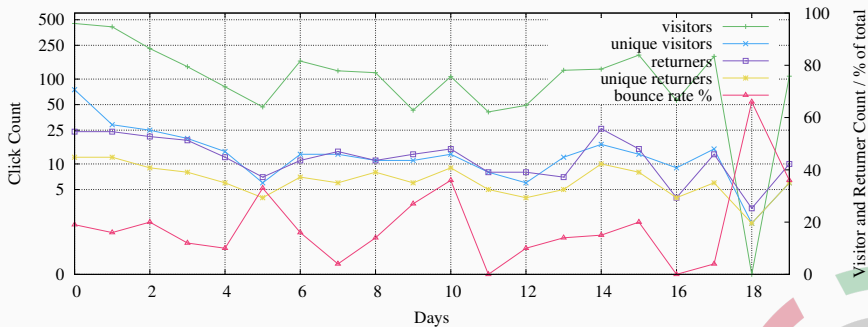
- 22 added positions
- 255 (233) added statements
- 235 arguments
- Reactions
  - 200 Undermines
  - 44 Supports
  - 137 Undercuts
  - 56 Rebuts
  - 19 show me another argument
  - 104 back
- We had to intervene three times
- Problems with the keyword „and“



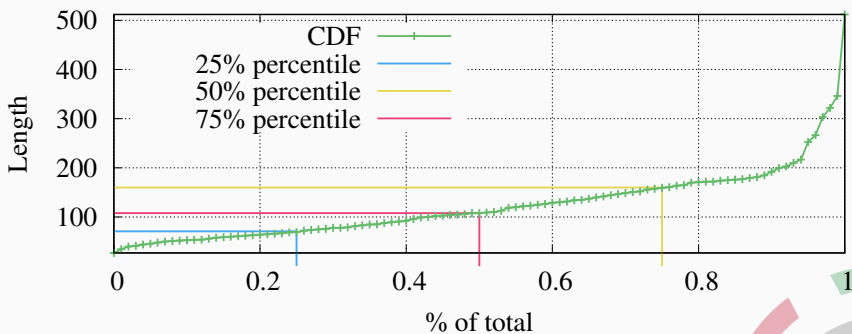
Depth and size of the discussion:



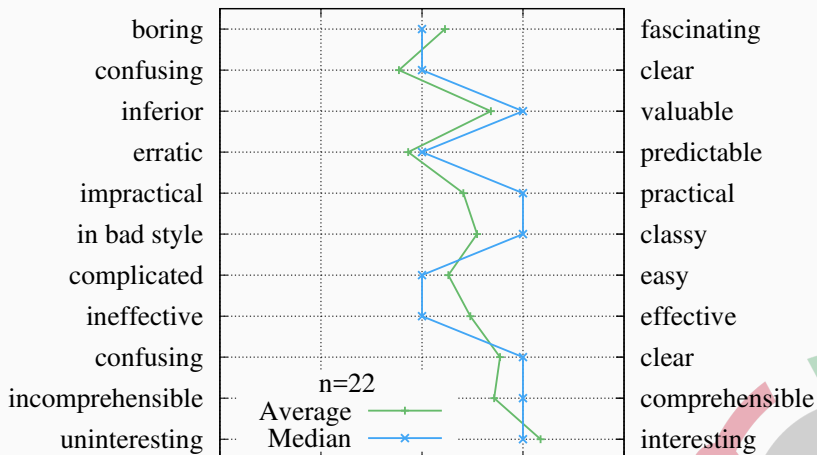
## Development over time:



Distribution of the statements length:



Word pairs from our questionnaire:



## Statements from our questionnaire:

