Computational Argumentation Seminar

Seminar Kick-off Meeting

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October 11, 2017
Arguments and argumentation

- **Argument**
  - A conclusion (claim) supported by premises (reasons) (Walton et al., 2008)
  - Conveys a stance on a controversial topic (Freeley and Steinberg, 2009)

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>The death penalty should be abolished.</th>
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<tbody>
<tr>
<td>Premise 1</td>
<td>It legitimizes an irreversible act of violence.</td>
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<tr>
<td>Premise 2</td>
<td>As long as human justice remains fallible, the risk of executing the innocent can never be eliminated.</td>
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  - Often some argument units implicit (Toulmin, 1958)
  - Most natural language arguments are defeasible (Walton, 2006)
  - Arguments follow some inference scheme (Walton et al., 2008)

- **Argumentation**
  - Usage of arguments to achieve persuasion, agreement, ...
  - Includes rhetorical and dialectical aspects
Computational argumentation

- Computational argumentation
  - Computational analysis and synthesis of natural language argumentation
  - Usually data-driven

Research on computational argumentation
- Models of arguments and argumentation
- Computational methods for analysis and synthesis
- Resources for development and evaluation
- Applications built upon the models and methods

\[
(1 - \alpha) \cdot \frac{p(d) \cdot |D|}{|A|} + \alpha \cdot \sum_{i} \hat{p}(c_i) \frac{|P_i|}{|P_i|}
\]
Goals of the seminar

- **You will learn about...**
  - Basics of computational argumentation
  - Webis research in this area
  - Selected state-of-the-art research in detail

- **You will practice...**
  - **Acquiring** relevant literature and knowledge on a research topic assigned to you
  - **Understanding** key concepts and methods related to your topic
  - **Presenting** your topic in short and in depth
  - **Writing** a scientific text about your topic
Advisors

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Web page

- www.webis.de
  > Teaching > WS 2017 / 18 > Seminar "Computational Argumentation"

Seminar info

- Master CSM, HCI, CS4DM, DE
- 3 ECTS (tasks and grading on next slide)
- B11, room 015
- Wednesday 11:00 (schedule on slide after next one)
Tasks and grading

- **Short talk, 5–7 minutes (~10% of the grade)**
  Slide templates available upon request
  - Overview given and further literature; structure the topic
  - Presentation: Outline of the topic

- **Long talk, 30–40 minutes (~40%)**
  Slide templates available upon request
  - Understand literature in detail; create a coherent "story"
  - Presentation: Detailed summary and discussion of the topic

- **Article, 8 pages + references (~40%)**
  Required: Use ACL-style files provided for Latex (recommended!) and Word
  - Create a written, possibly extended form of the long talk
  - Article: Detailed summary and discussion of the topic

- **Participation (~10%)**
  - Questions and discussions within the meetings
Schedule

- **Introduction**
  - Oct 11 (today)  First meeting, organizational
  - Oct 18        Introductory talk on computational argumentation
  - until Oct 22   Choose seminar topic
  - Oct 25        Introductory talk on Webis research + topic assignment
  - Nov 1         Introductory talk on presenting

- **Short and long talks**
  - Oct 25 – Nov 8 Overview literature, meet with us, prepare short talk
  - Nov 8         Short talks on all chosen topics
  - Nov 8 – Nov 29 Study literature, meet with us, prepare long talk
  - Nov 29 – Jan 31 Long talks, ~1 topic per week
  Talk schedule may be adapted depending on the number of participants

- **Articles**
  - Jan 31 – Mar 23 Meet with us, write article about your topic
  - until Mar 23   Submission of articles
References