

# Concluding Remarks

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# Perspectives

- Analogy with opinion mining:
  - understanding *what* people think about something VS understanding *why* (HABERNAL ET AL. (2014))
  
- Going beyond *critical thinking*, i.e., a set of rational, deductive arguments:
  - How to influence a real audience?
  - What is the role of emotions?
  - How to analyse human reasoning processes?
  - ...

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- **Big data:**
  - social network posts, forums, blogs, product reviews, user comments to newspapers articles, etc.
  - crowd-sourcing assessment to annotate very large corpora despite the difficulty of the task
  
- **Deep learning:**
  - fast and efficient machine learning algorithms
  - large and unsupervised corpora
  - e.g., word embeddings: automatically learned feature spaces encoding high-level, rich linguistic similarity between terms

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- **Multilingualism:**
  - argument mining mainly for *english* texts, one approach for *greek* texts
  - What about the other languages?
  - Are there language-specific argumentation patterns that can be identified?
  
- **Other issues:**
  - argument mining for the automated evaluation of alternative design solutions
  - uncertainty measure based on natural language arguments
  - meaningful visual representation of the results to support decision making
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# Take home message: argument mining pipeline

- 1 Select a precise task and write down clear **annotation guidelines**
- 2 Annotate documents to generate your **corpus** (IAA)
- 3 Choose or define the best solution for your task (sentence classification, structure prediction, . . . )
- 4 **Evaluate** your performances and compare with related work



# Useful references

- Corpus repositories:
  - <http://corpora.aifdb.org/>
  - <http://argumentationmining.disi.unibo.it/resources.html>
  
- Past events:
  - Proceedings of the Argument Mining Workshop Series
  - Proceedings of the Workshop on Frontiers and Connections between Argumentation Theory and Natural Language Processing

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# Thanks for your participation to the tutorial!

