

Hate Speech Detection WiSe 23-24 How to write a research paper?



Image taken from https://deepsense.ai/artificial-intelligence-hate-speech/

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LMU Writing Center

https://www.en.schreibzentrum.fak13.uni-muenchen.de/index.html

Other excellent resources

https://owl.purdue.edu/owl/general_writing/academic_writing/

Hate Speech Detection (WiSe23-24)

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Key Components

- Well-defined research questions/Hypothesis
- Proper literature review (avoiding plagiarism)
- Detailed/Clear/Reproducible Experimental Setting
- Evaluation / Results / Discussion
- Conclusion
- Limitations & Ethical Concerns
- Appendices
- References (proper and consistent reference style)



Templates

- Word, Latex templates
- Prefer Latex if possible!
- Overleaf offers a large number of templates
- Latex: steep learning curve at the beginning, but it is worth it!

Overleaf Tutorials:

- https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes
- https://www.overleaf.com/learn/latex/LaTeX_video_tutorial_for_beg inners_(video_1)



How to start? besides having an idea ©

Decide on/check

- Type of paper (empirical, survey, opinion?)
- Length of paper
- The citation style
- The template



IDEA

- Define a research question(s)
 - Literature review helps you to gain a broader understanding of your topic
- Define keywords for your literature review
- Always check recent papers
- But do not forget the keystone papers of the domain
- What has been done in the domain?
- What is still unexplored, inconclusive?
- Is the question too broad or too narrow?
- Refine your research question(s)



Research Questions

- If more than one, clearly define the distinctions and their relevance!
- Has it been addressed before?
- If yes, how?
- In the end, ensure that you have transparent and answerable questions given the evaluation metrics you have used!

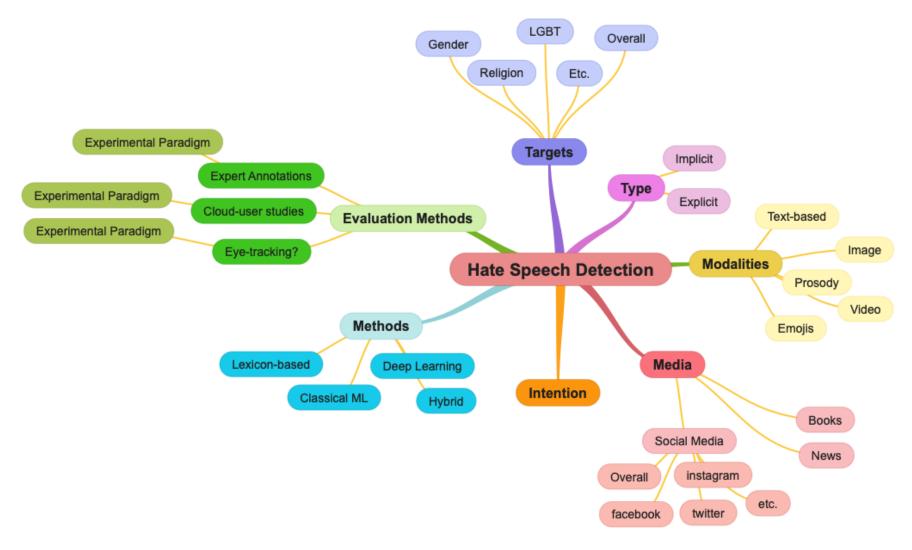


Story

- Find a good story based on your contribution.
- Form the skeleton of your paper
- Look at the bigger picture and bring the focus to your small domain
- be aware of different aspects (target, bias, multilingual, multimodal, social?)
- Different methods, Different datasets
- Already solved issues, remaining challenges

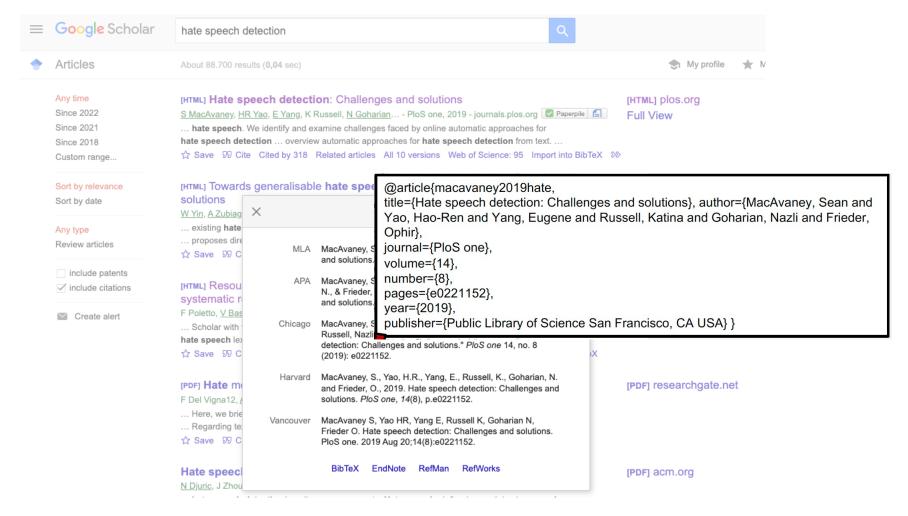


Mind Maps





Citing Properly





Some general mistakes

Make sure that you have the proper fields:

- Page Numbers
- Doi or URLs
- Location for Conferences
- Publisher and Volume for Journal Articles and Books



Online/Offline Research Assistants

- Zotero (https://www.zotero.org/)
- Mendeley (https://www.mendeley.com/search/)
- Paperpile (https://paperpile.com/)



Literature Review / Related Work

- A good related works section indicates that the author has a good knowledge of the research domain.
- A valid recognition of previous RELATED studies (not just a list)
 - always bind the cited material to your research area/question/method, etc.
 - Point out the shortcomings of the previous works
 - with justification (why they are weak, missing, etc.).
 - Use this justification to explain why your study is needed!
 - Mention whether there is a similar study and how yours differs from it.
 - Replication studies are not pointless but deliver the point clearly!



Intro and Literature Review

- Establishing why your topic is important
 - "Multimodal learning has many application areas in the field of "
- Outlining the past-present history of the study
 - Recent findings regarding multimodal integration in hate speech detection have led to
- If applicable, outlining the possible future
 - In the next five years.....
- Source: https://link.springer.com/book/10.1007/978-3-319-26094-5



Intro and Literature Review (cont)

- Indicate the possible limitations
 - Previous work has only focused on / been limited to / failed to address
- State the aim of your paper and its contribution
 - This paper examines/seeks to address / focuses on / discusses
 /investigates how to solve
- Explain the key terminology in your field
- Give the structure of the paper what is and is not included
- Source: https://link.springer.com/book/10.1007/978-3-319-26094-5



Avoid Plagiarism

- After you have finished reading something, set it aside, write it in your own words, compare it with what you read earlier in the source document, and refine your writing. Make sure to cite the source document.
- Don't misinterpret or manipulate what was intended in a source to suit your needs (for text, charts, graphs, images, music, and video).
- Based on citations from secondary sources, make sure those citations actually exist and find out what was really conveyed in those cited sources so that you are not reproducing someone else's misinterpretation.
- https://www.niu.edu/academic-integrity/students/plagiarism/tips-on-avoiding.shtml



Writing style

- Check grammar
- Check whether there are repeated words (verbs, connectors)
- Whether the abbreviations are introduced
- Use italics/bold when necessary (e.g., italics for terms)
- Pay attention to Figures and Tables
 - · meaningful and standalone captions,
 - proper and consistent reference in the main text
 - Readable content



Experimental Setup

- Describe the apparatus and materials used and their source
- Give basic statistics about your participants, dataset, conditions, etc.
- Describe the purpose of the methods used.
- Report the details of the models, dataset used
- Outline alternative approaches and limitations

Source: https://link.springer.com/book/10.1007/978-3-319-26094-5



NLP Oriented Methodology Section

- SOTA results on the dataset/model/approach etc.
- The details of the model (framework, parameters, hyperparameters)
 - E.g. If there is an imbalance in the class distributions, do you handle them?
 - Do not make it too crowded, you can use Appendices! Still be sure that the paper is not too dependent on the Appendices as well!



Evaluation

- Introduce your metrics
- Explain why you use them and what they measure.
- Then in the RESULT section, you will report the results one by one for each metric
- Interpret them individually and in combination with other metrics (if relevant)

Results and Discussion Mind the difference!



- Briefly re-explain how you got your results
- Revisit your research questions/hypothesis
 - State what you found
 - State what you did not find
- Highlight significant results and achievements
- State that your results confirm or contradict previous evidence
- Express caution regarding the interpretation of results / Admitting limitations
- Mention Ethical Considerations

Source: https://link.springer.com/book/10.1007/978-3-319-26094-5



Conclusion

- Restate the results
- Highlight achievements
- Outline possible applications and implications of your work
- Mention the future work already underway or planned by the authors