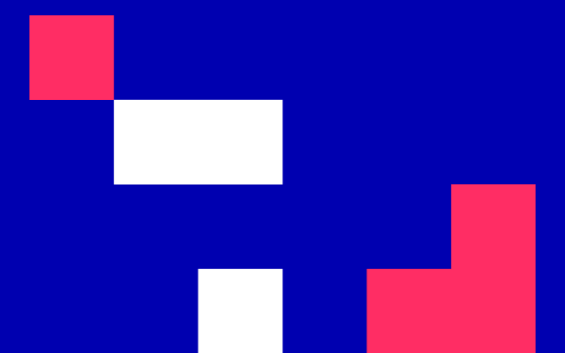


University of Cyprus

MAI613: Peer Review and General Comments

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Fall 2022



Lecture Outline

1. Peer review – Introduction
2. Peer review on journal vs conference papers
3. Examples and tips on how to address the comments
4. Feedback and tips for writing a survey paper

6. Storytelling in research
7. Interactive exercise

Video: Peer Review Process for Research Publications

Examples of Peer-review in a Journal Paper

- Be polite!!
- Details of the paper (title, manuscript number)
- Summary of the topic
- General comments (accept without changes, accept with minor changes, accept with major changes)
- Specific comments

General Comments:

1. The presentation of the paper is hard to follow. It would be better to re-structure the sections in the paper. For example, the limitations of probability and Bayesian theories should be a part of a section: Related Work - The following sections should also be included: a) Proposed Approach - which will describe the approach and specify the novelty of this work and b) The experimental analysis and the evaluation of this work (expert-based validation).

2. Expert-driven validation for a single patient path was used to evaluate this work. However, this is not sufficient, the approach should be tested on a number of patients either using statistical methods or expert knowledge.

Peer Review

Peer-review for a Journal Paper - Example

Formatting Comments:

- Use the same format for Figures labels i.e. Figure 1, Figure 2 ..

Introduction:

- 1 or 2 paragraphs introducing fuzzy logic and evidence theory should be included in the introduction since the utilization of these two areas is the novelty of this research.
- Page 1: 3rd paragraph: The sentence “Selecting the most appropriate treatment package from differing options raises the possibility of potentially diverging... “ should be rephrased. What does the phrase “selecting one path will result in a developing..” means? Selecting any path but not the most appropriate one?

Section II:

- Authors should also refer to Nodelman et.al work on CTBN: Nodelman, Uri, Christian R. Shelton, and Daphne Koller. "Continuous time Bayesian networks." Proceedings of the Eighteenth conference on Uncertainty in artificial intelligence. Morgan Kaufmann Publishers Inc., 2002.

Peer Review

Peer-review for a Conference Paper

*** REVIEW:

- Please provide a detailed review, including justification for
- your scores. This review will be sent to the authors unless
- the PC chairs decide not to do so. This field is required.

% Please consider the following as a set of "rough guidelines" for what to

% include when writing a review for conference Y:

- % * A short summary of the paper, plus what you think the "contribution" is
- % * Aspects of the paper that you liked (flatter the author for a bit)
- % * Things you didn't like (presentation, style, structure, overall
% technique, flaws, omissions, errors, spellings, etc.) -- be critical!
- % * Things that should be changed (e.g., "maybe the authors could write X

Peer Review

Peer-review for a Conference Paper

- % * Suggestions for other improvements (e.g., "maybe the authors could compare their technique to Z")
- % * A summary including your decision (e.g., "I think the paper presents a novel contribution to the field of XXX, and should/should not be accepted")
- % The program committee really expects reviews to have four paragraphs, one for each of the following points as a bare minimum (with an optional fifth):
 - % 1) A summary of the paper
 - % 2) The good things
 - % 3) The bad things (+ suggested improvements)
 - % 4) A summary of your decision
 - % 5) Any suggested formatting alterations

Addressing Comments of Peer Review - Example

- Create a Google doc with a table including all the comments (both from the instructor and the reviewer team)
- Number the comments
- Add a proposed solution to address the comment, person in charge, due date
- If you do not agree with any comment, add a note why this comment will not be addressed

Figures, Tables and Illustrations

- To draw figures, illustrations:
 - Draw.io
 - Power BI
 - Tableau
- Add label and citation (if necessary) to every figure/table used in the paper
- Refer to that figure/table in the text and explain it briefly
- In academic research papers, the figures should be in vector format (.eps, .pdf)

References

References

- Every part of your paper that is not your own idea, even if you re-write it on your own works
 - Apart from the abstract and conclusions
- Introduction
- Analysis of papers
 - Datasets (references or links)
 - Tools/apps (references or links)
 - Figures that you did not draw
 - References to other authors/works from one paper that you analyze (cite the authors who mention this piece)
- Add references after the author names
- Some parts of the text might have multiple references especially in the introduction or when you refer to several works used the same technique i.e. [2- 4]

Analysis of Papers

Comparative Analysis

- Keep notes for specific parts that you are interested in each paper
 - Any terminology/definitions discussion that help you to understand the general topic
 - Dataset used (including a short description, any links/references)
 - Techniques used
 - General results

- Comparison of methods/results
 - Comparison with other works (already published) can be done only if applied to the same dataset using the same splitting criteria and evaluation metrics
 - Or re-run the same methods as proposed in the paper on the same dataset as yours
 - Table with numerical results are only useful if you compare the application of these techniques on the same dataset

Writing the Survey Paper

- Focus on one topic
 - One application
 - Refer to specific characteristics on which we will compare the different works i.e. techniques, datasets, evaluation, data collection
 - Understand what you write
 - A paper can be summarized even within two lines
- Use mainly present tense
- Acronyms in parenthesis – defined once and used through all the paper

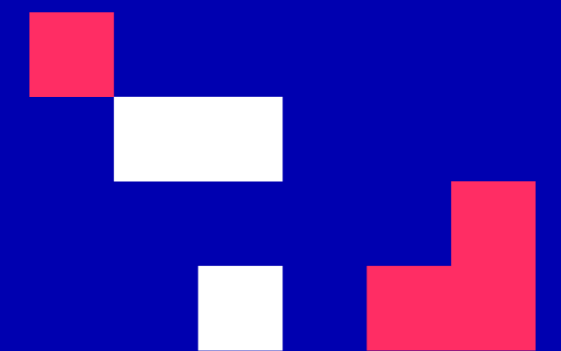
University of Cyprus

MAI613: Research Methodologies and Professional Practices in AI

Interactive Exercise: Storytelling for presenting research

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Fall Semester 2022



Storytelling in Research

- A method to present your research (topic/findings)
- Written format: Using visualization/storytelling tools
- Oral format: Tell a story for your research
 - Video/movie
 - Use of multimedia

Benefits of Storytelling

- Increase participant engagement
- Enhance the meaning of research findings
- Initiate dialogue between the participants and other experts about issues concerning the particular research domain
- Explain the research to non-professionals
 - Enhances transparency and user trust

Data Storytelling Parts

- Data storytelling used to describe methods that use data (data science, big data..)
- Understanding the business, understanding the data, defining the purpose, understanding the audience, analyzing the data, modeling the story, interacting with the narrative, and continuous improvement
- **Actors:** audience, end users
- High interactivity
- **Plot:** Any events in the data story that underlines the main research
- **Conflicts:** Elements that lead to uncertainty about whether the goal will be achieved
- **Solutions:** Conclusions, future work

Interactive Exercise (15' minutes)

- Work with your team members
- Think about a story plot to “advertise” your research topic and survey paper to non-professionals
- Identify the characters (actors), plot, conflicts, solutions
- You can either consider data storytelling parts or create any story plot that can be a plot for a video/movie/fiction story
- Will your story be applicable to different audiences?

References

- Segel, E. and Heer, J., 2010. Narrative visualization: Telling stories with data. IEEE transactions on visualization and computer graphics 16,6, 1139-1148.
- Finkler, W. and Leon, B., 2019. The power of storytelling and video: a visual rhetoric for science communication. Journal of science communication, 18(5), A02.
- Beauxis-Aussalet E, Behrisch M, Borgo R, et al. The Role of Interactive Visualization in Fostering Trust in AI[J]. IEEE Computer Graphics and Applications, 2021, 41 (6): 7-12.
Gagnon

MAI4CAREU

Master programmes in Artificial
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