

# PAPER READING TASK

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## I. SUMMARY

This research introduces MEMEX, a groundbreaking novel task-designed method to reduce the context that explains the background information of a given meme. The contributions include the creation of the Meme Context Corpus (MCC) dataset and the development of the Multimodal Meme Explainer (MIME) framework. MEMEX aims to identify explanatory evidence for fully grasping the meaning and impact of memes.

To evaluate the effectiveness of the framework the research team has developed a novel dataset called the Meme Context Corpus (MCC) that contains 3,400 memes and their related contextual documents along with human annotation evidence sentences. These texts were sourced from Wikipedia and various online repositories. The dataset annotations were verified using Cohen's Kappa, to ensure a reliable measure of annotation quality.

It proposes a multimodal framework called MIME (Multimodal Meme Explainer) that utilises multiple information sources such as text, images, and common knowledge to emphasise the most relevant contextual information in a meme.

## II. STRENGTHS OF THE PAPER

Here are some key strengths of the paper:

1. Introducing a novel task called MEMEX which aims to detect the explanatory evidence for memes from related contextual documents. This task is quite difficult because memes frequently neglect the important contextual information that is necessary for a comprehensive understanding. This has been a important problem that has not been well studied earlier.
2. Conducting a complete analysis to understand the aspects that lead to prime modelling of cross-modal contextual associations for memes by providing useful insights.
3. MEME works without the need of metadata. As it assumes that the relevant context can be found easily in online platforms.
4. In testing, the performance of a MEME demonstrated various unimodal and multimodal comparative frameworks on the MCC dataset, achieving a significant enhancement of approximately 4% in F1-score compared to the most competitive baseline.

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## III. WEAKNESSES OF THE PAPER

The paper contains few critical weaknesses that need to be addressed. Here the points that highlight this aspect:

1. To prevent the misuse, human oversight is required. The dataset could be misused for various targeting specific groups, individuals or organization in a influenced manner.
2. The study does not provide a detailed review of the MEME framework that how well it performs in specific cases. For example, it does not give any example of where MEME is correctly or incorrectly identifies some important sentences as an evidence. Building this kind of analysis help us understand better what a MEME can or cannot do.
3. The paper does not discuss about potential future directions of the MEMEX task, which could limit the relevance and its impact in the field.
4. The paper does not provide concrete examples or case studies to demonstrate the practical use of the MEMEX system. The evaluation of the MIMEX is limited to a single dataset and it does not provide any comprehensive comparison with other state of the models.

## IV. SUGGESTIONS FOR IMPROVEMENT To THE PAPER

The following suggestions if implemented could help make the model much more robust:

1. The paper could benefit from providing more contextual background that is necessary for understanding memes, which is crucial for accurate interpretation. This would help the readers appreciate importance of the MEMEX task.
2. The authors have mainly focused on memes that are related to politics and history in English .Expanding the models to cover more subjects beyond politics and history, and including more languages would make it useful to a border audience.
3. Incorporating memes from valid themes like entertainment ,sports and popular culture and expanding language support to include non English memes, would make the model more universally applicable.
4. Gathering memes and contextual documents from more valid platforms than just mainstream sites like Reddit or Google images, such as niche forums or Q&A websites could improve richer data.

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