

We don't Know how to Assess LLM Contributions in VIS/HCI

Position paper

Anamaria Crisan

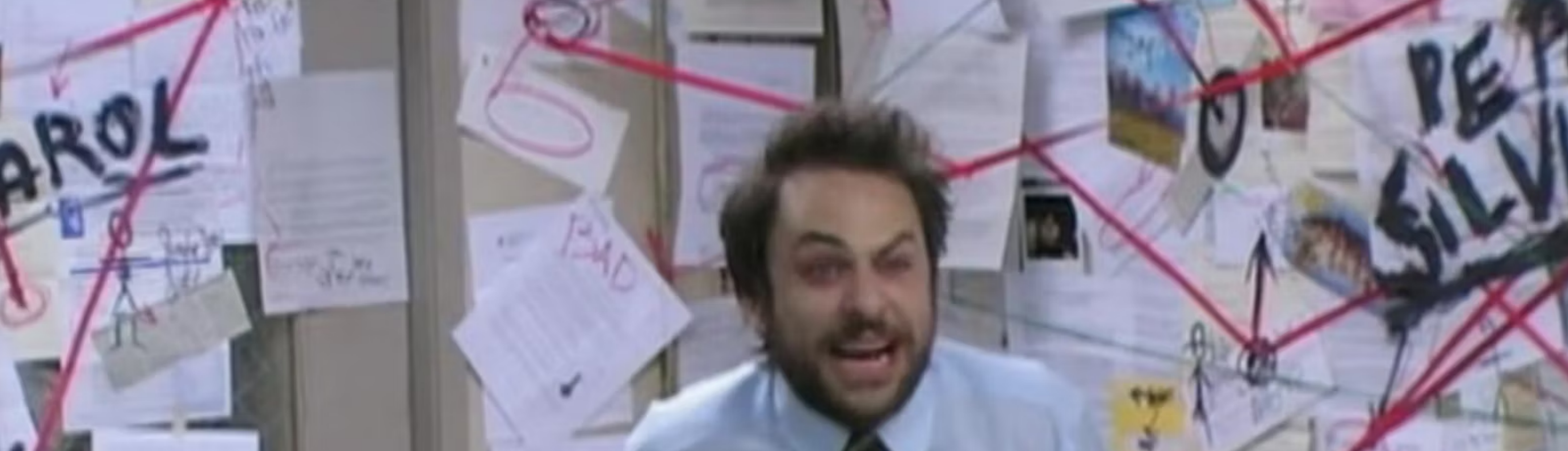
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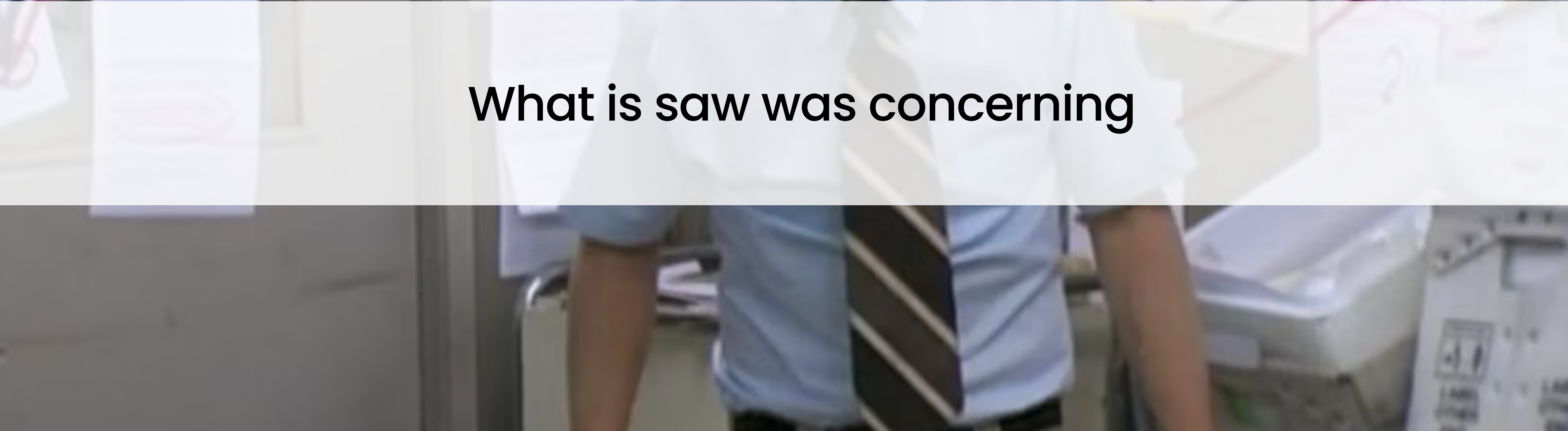


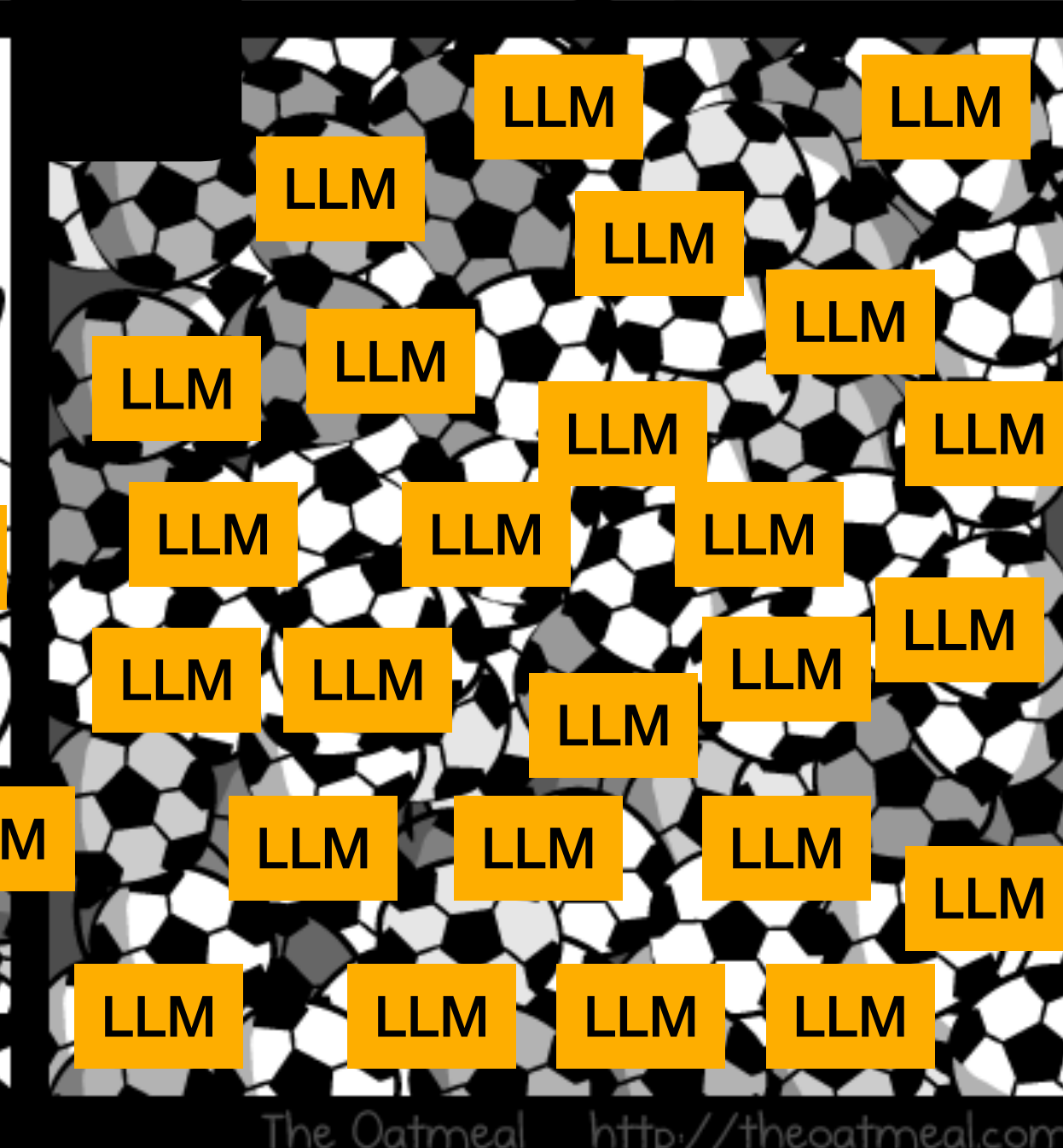
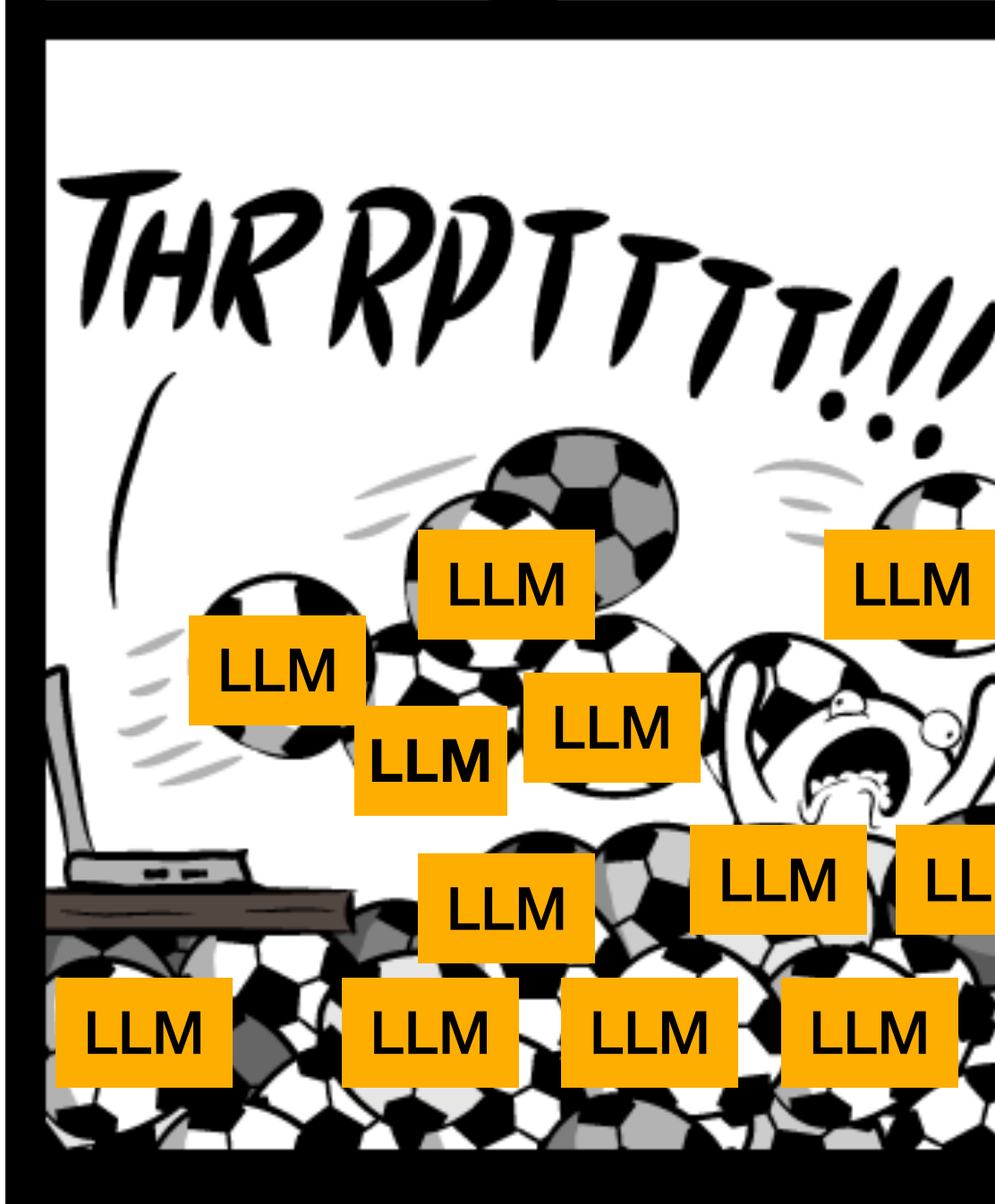
**I volunteered to serve on 4 program committees
CHI'24/ FAcct'24/ CSCW '24/ VIS'24**





What is saw was concerning





**here were some common
reviewer critiques**

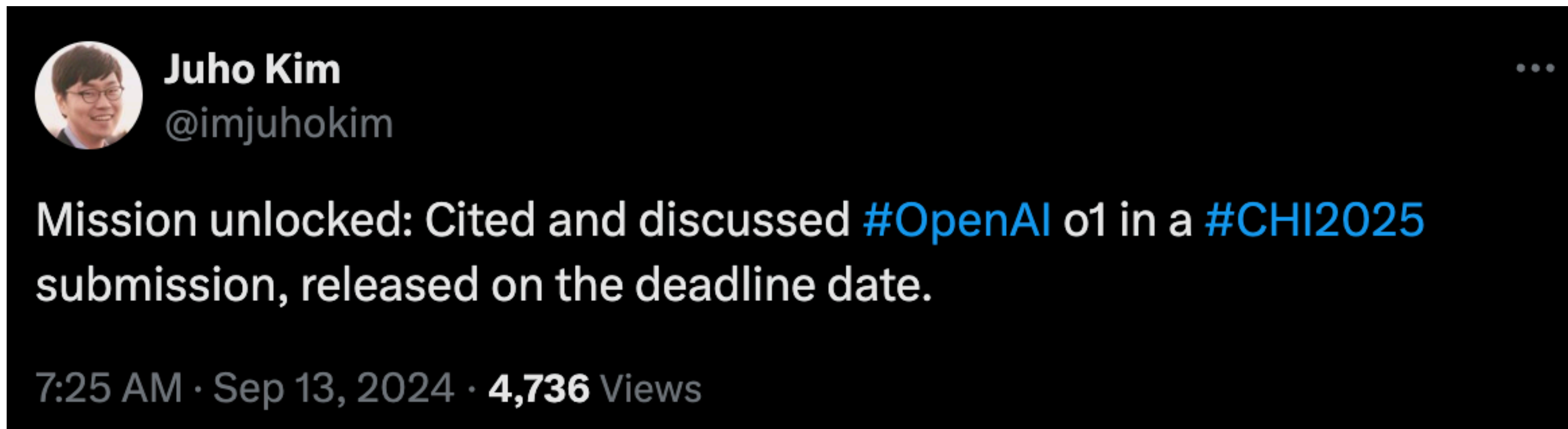
1. LLMs have non-deterministic behaviour

The **same** LLM provides a **different** response to exactly the **same** prompt

2. You didn't evaluate against enough LLMs
Different LLMs provide a **different** response to exactly the **same** prompt

3. You didn't evaluate against the latest LLM

New LLMs are constantly emerging with **substantive** performance gains



1. LLMs have non-deterministic behaviour

2. You didn't evaluate against enough LLMs

3. You didn't evaluate against the latest LLM

You got lucky and didn't assess the full range of performance

**You got lucky and didn't
assess the full range of
performance**

- **Its expensive to run multiple LLMs multiple times**
- **There is unequal access to LLMs**
- **Privileges specific labs/groups**

4. You didn't discuss the latest LLM paper

... and it obviates your results

5. You didn't cite ANY relevant research.

No VIS/CHI/CSCW/FAcct etc. papers were referenced

6.The LLM Wrapper Paper

Your novel research is just low-hanging fruit of LLM capabilities



An "LLM wrapper," according to Dall-E-3.

4. You didn't discuss the latest LLM paper

5. You didn't cite ANY relevant research.

6. The LLM Wrapper Paper

Your novel research is just low-hanging fruit of LLM capabilities and timing

Your novel research is just low-hanging fruit of LLM capabilities and timing

- **There is too much flag planting on arXiv**
- **LLM (“AI for X”) applications are worth exploring**
- **Research communities as a counterpoint to industry claims**

7. I don't like LLMs / I am so over them

...yup, it happens



what should we do about it?

1. LLMs have non-deterministic behaviour

2. You didn't evaluate against enough LLMs

3. You didn't evaluate against the latest LLM

1. Make a reasonable attempt to understand the variability of LLM outputs

2. Consider requiring a budget and access statement

3. Make a reasonable attempt to justify the use of an LLM

Example of a Budget Statement

Shows people how expensive it is to reproduce the results

Published as a conference paper at COLM 2024

Elephants Never Forget: Memorization and Learning of Tabular Data in Large Language Models

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We conducted initial experiments with different versions of GPT-3.5 and GPT-4 and found that the results are fairly robust towards the precise model version. This holds true for both the results of the memorization tests in Table 2 and for the few-shot learning results in Table 4. An exception is the model gpt-3.5-turbo-1106 that performs worse on the few-shot learning tasks than other versions of GPT-3.5. The models that we used to run the final experiments are detailed in Supplement B. **The cost of replicating all the results in this paper with the Open AI API is approximately 1000 USD. By far, the most expensive experiments are the few-shot learning experiments with GPT-4 (they require approximately 1000 queries per data point, sometimes with relatively long context).** In contrast, the memorization tests require relatively few queries.

4. You didn't discuss the latest LLM paper

5. You didn't cite ANY relevant research.

6. The LLM Wrapper Paper

4. Limit citation requirements for new research

5. Make Better Use of the Desk Reject

6. Actively Engage in the Discussion Period

Example of Limiting Required Work To Cite

How to review for ACL Rolling Review

Anna Rogers, Isabelle Augenstein

Version 0.1, 02.11.2021

ACL Rolling Review

April 12, 2021 | BY priscilla

Event Notification Type: Call for Papers

Website: <https://aclrollingreview.org/cfp>

ACL Rolling Review

Papers (whether refereed or not) appearing less than 3 months before the submission deadline are considered contemporaneous to a submission, and authors are therefore not obliged to make detailed comparisons that require additional experimentation and/or in-depth analysis.

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