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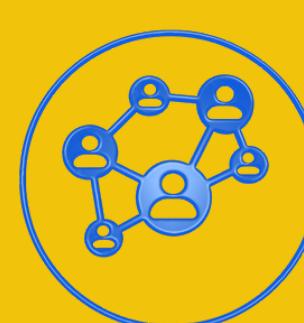
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# WHO WHAT WHEN DID: MULTIPLE WH-QUESTIONS IN LARGE LANGUAGE MODELS

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CINE CE A FĂCUT CÂND?  
WHO WHAT TO DONE WHEN?  
WHO WHAT DID WHEN?

MULTIPLE WH-QUESTIONS (MWQs)  
IN ROMANIAN  
FIND THEM IN  
EXISTING DATASETS

LANGUAGE TYPE 1 – ROMANIAN

CINE CE A FĂCUT CÂND?  
WHO WHAT DID WHEN?  
CINE CE CÂND A FĂCUT?  
WHO WHAT WHEN DID?

TRANSLATE &  
TRANSFORM

LANGUAGE TYPE 2 – ENGLISH

WHO DID WHAT WHEN?  
WHO WHAT DID WHEN?  
WHO WHAT WHEN DID?

LANGUAGE TYPE 3 – ITALIAN

CHI HA FATTO COSA QUANDO?  
CHI COSA HA FATTO QUANDO?  
CHI COSA QUANDO HA FATTO?

CALCULATE SURPRISAL AT 2<sup>ND</sup> WH-ELEMENT FOR ALL 3 TYPES OF  
LANGUAGES FOR MONO- AND MULTILINGUAL LARGE LANGUAGE MODELS  
(LLMs) & PROMPT THEM FOR EXPLANATIONS

## RESEARCH QUESTIONS

1. Can LLMs capture the (un)grammaticality of MWQs in some language types via surprisal scores?
2. Are monolingual or multilingual LLMs better at capturing this ungrammaticality?
3. Do LLMs have higher surprisal when providing *mention-all* or *mention-some* answers? (Roelofsen & Dotlăčil, 2023)

DOES YOUR LANGUAGE ALLOW MWQS? WANT TO JOIN?  
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