SAGESSE: A System for Argument Generation, Extraction and Structuring of Social Exchanges
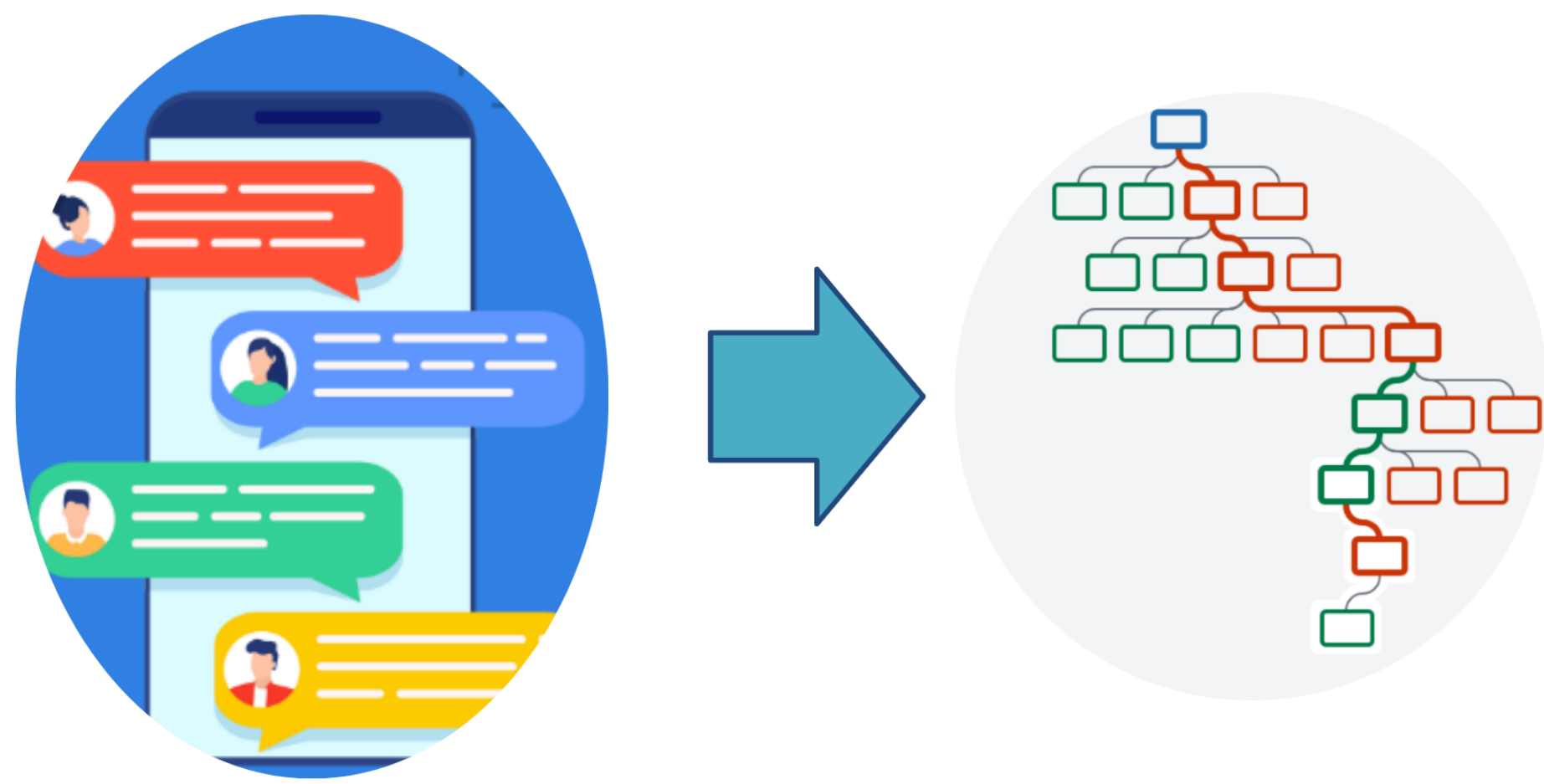
SAGESSE

EPFL

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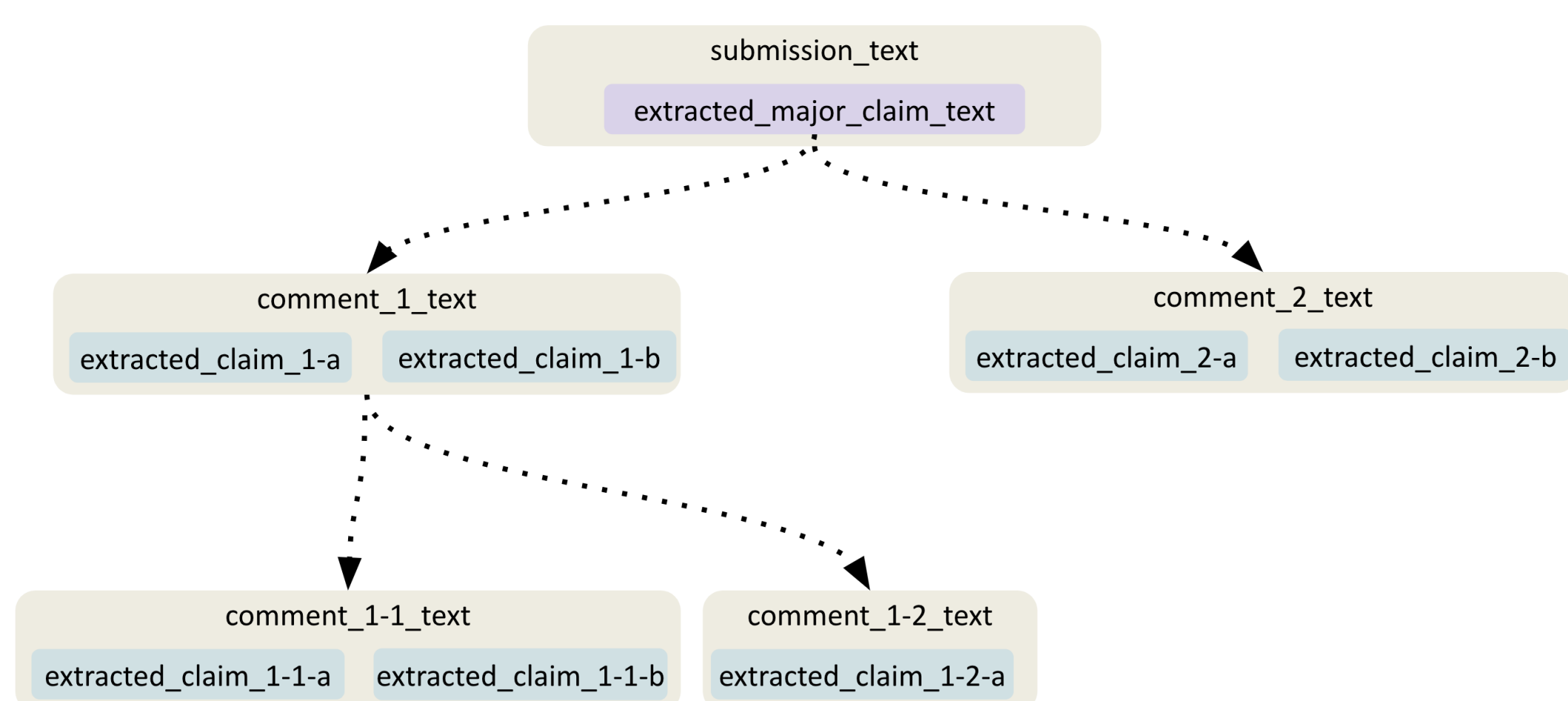Distributed Information Systems Laboratory (LSIR), École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
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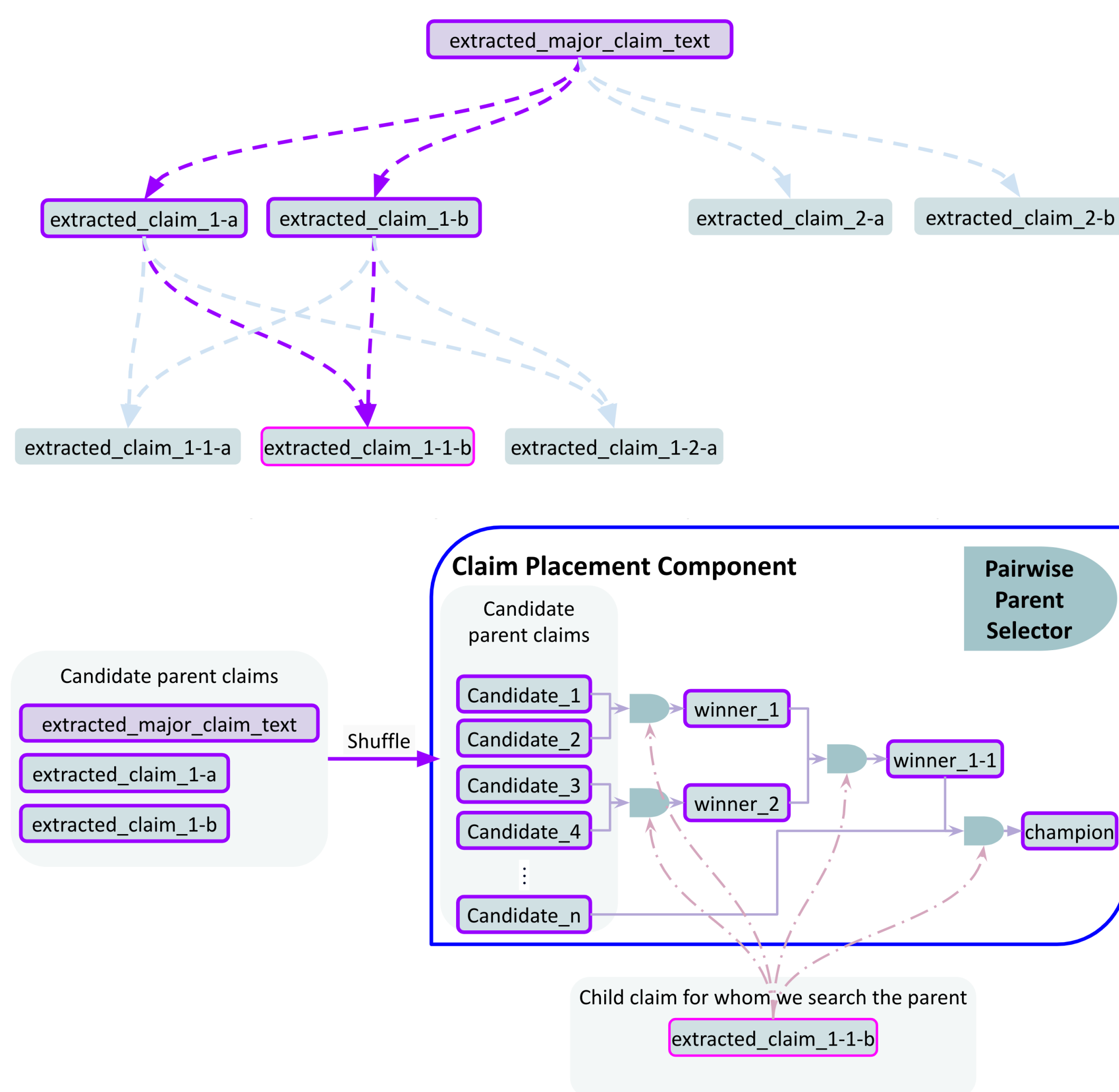## Motivation: Automatically build argument maps from Reddit threads

Online debates provide critical insights into public opinion and societal trends, yet the unstructured nature of these discussions presents significant challenges for analysis. In this paper, we present SAGESSE, a **novel argumentation parsing pipeline tailored to Reddit debates**, leveraging the capabilities of **large language models** to **structure** and interpret complex **online arguments**. SAGESSE generates detailed **argument maps** that organize debates systematically, offering a clearer understanding of discourse dynamics. We have developed a **web application** where users can select **controversial Reddit topics** and **visualize** the corresponding argument maps generated from user comments. This tool has the potential to aid analysts, policymakers, and researchers in tracking debate progress, gauging public sentiment, and identifying influential arguments. The web application is available at `https://modemos.epfl.ch/sagesse/`.
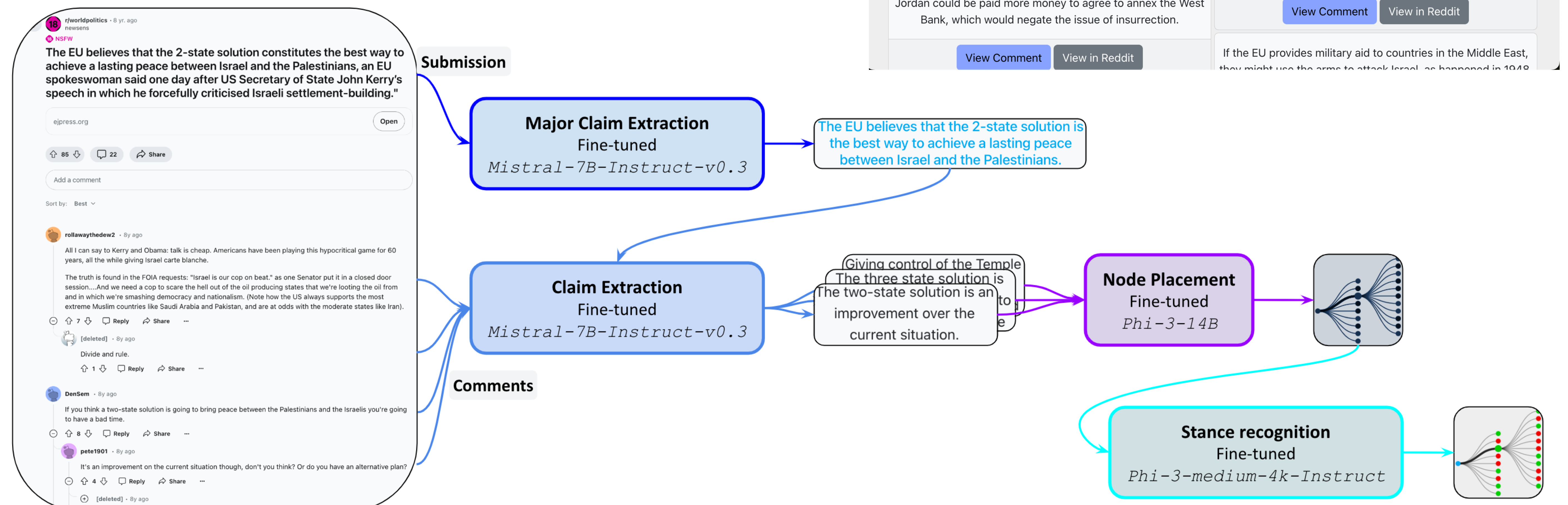

(1) LLM-based Major claim and claim extraction component

(2) LLM-based Node placement component

Full pipeline with (1) Major claim & claim extraction (2) Node placement and (3) Stance recognition

Screenshots of the SAGESSE web application