

ECLAIR: Enhanced Clarification for Interactive Responses



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(* work done while interning at Adobe)

Too Long; Didn't Read

- ECLAIR: a novel and unified framework
 - **Input:** Use-case defined agents
 - **Output:** Enhanced clarification
- ECLAIR boosts precision in clarification question generation compared to standard few-shot approaches.

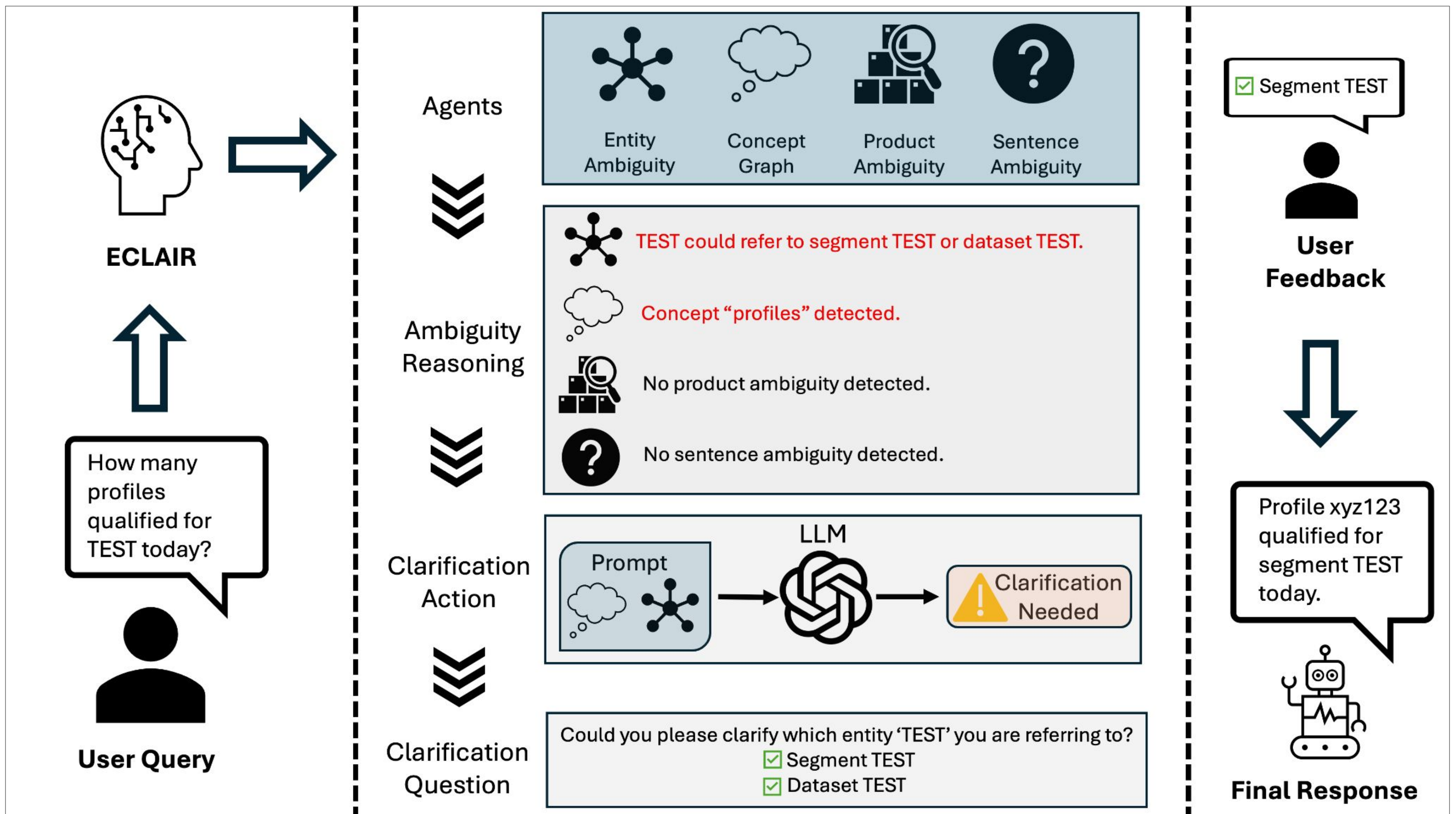
Motivation

- AI assistants need better ways to handle ambiguous queries in **enterprise settings** where domain knowledge is critical
- Current LLM approaches miss enterprise context and treat ambiguity detection as a purely lexical problem

Problem Statement

- **Unified framework:** fuse domain knowledge & multiple information sources when detecting ambiguity and generating clarification questions
- **Existing solutions:** use sequential pipelines that miss the interdependence between ambiguity types and clarification needs

System Diagram



Entity Ambiguity

How many profiles qualified for TEST today?

Sorry, but more information is needed to provide a relevant and accurate response.

Could you please clarify which entity 'TEST' you are referring to? Multiple matches were found:

- ✦ segment 'TEST'
- ✦ dataset 'TEST'

Ask about Experience Platform

Product Ambiguity

Show me how to create a technical account as a system admin

Sorry, but more information is needed to provide a relevant and accurate response.

Your query could refer to multiple products. Could you kindly clarify which product you are referring to?

- ✦ Adobe Workfront
- ✦ Adobe Experience Manager (AEM)
- ✦ Adobe Commerce (ACOM)

Ask about Experience Platform

Data

- 100 hard queries; fine-grained ambiguity and clarification question annotations

Results

- ECLAIR **helps** in clarification question generation (+13% F1 for binary need to clarify)