

KNOWLEDGE ENABLED REAL-TIME RECOMMENDATION SYSTEM

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CONTEXT

Semantic Web offers novel strategies to represent data about users, items and their relationships.

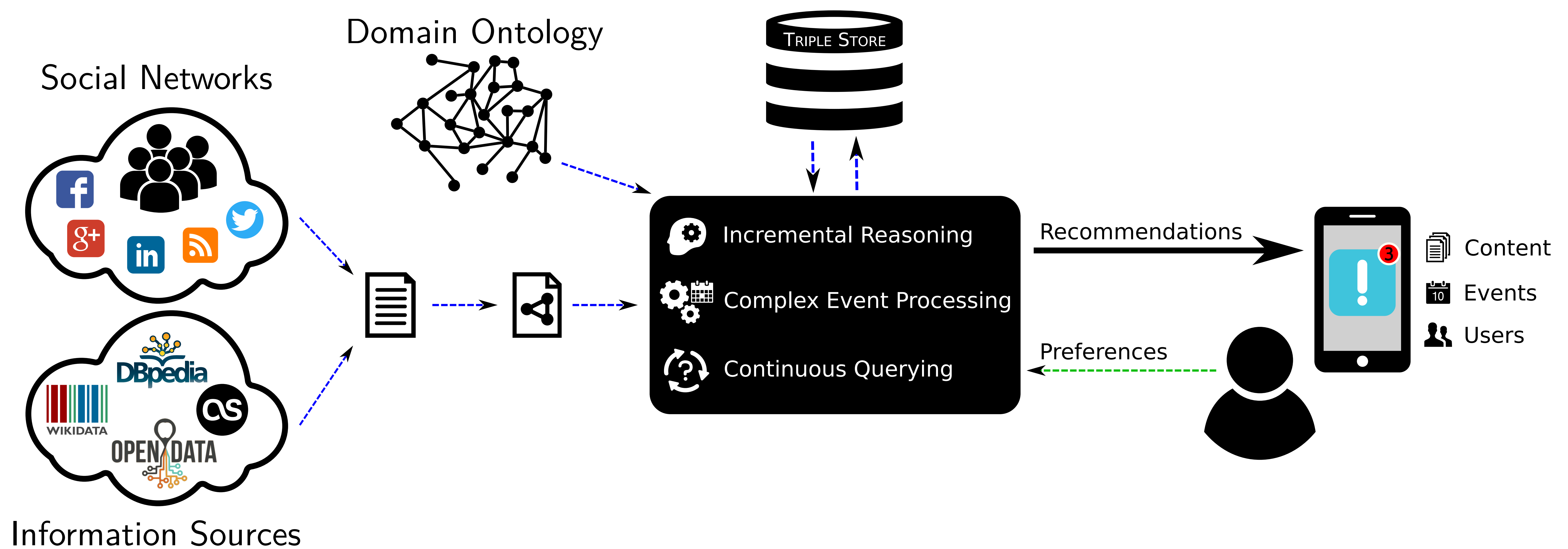
Link data principles enables to set up links between objects in heterogeneous data sources.

This permits a new breed of recommendation systems with complete knowledge and enables prediction in cold start situation.

METHOD

- Collecting raw data from heterogeneous sources.
- Mapping and defining links between objects according to the domain ontology.
- Real-Time continuous querying to infer and detect pattern.
- Push-based subscription to register for long-running recommendation requests.
- Providing recommendation to end user based on input query and their preferences.

ARCHITECTURAL OVERVIEW



CONTRIBUTIONS

Reasoning: Slider

- Efficient incremental reasoner
- Handles linked data streams
- Generic and adaptable
- Streamed architecture
- High scalability

Event Processing: IntelSCEP

- RDF Graph based event model
- Background information fusion
- Distributed query processing
- Automata based semantics

Pattern Matching: IntelSPM

- Live and historical pattern matching
- Temporal and location based Matching
- Sequencing, Negation, Kleene closure computation