Creating Real-Time Dynamic Knowledge Graphs
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**MOTIVATION**
- Real world events are dynamic in nature
  - Recurring events e.g. US Presidential Election
  - Non-recurring events e.g. Hurricane Irma
- Need for real-time predictive analysis, trend analysis, public opinion analysis for events.
- Current state-of-the-art curates evolving knowledge graph from structured text but not from incoming real-time user generated unstructured text.

**CONTRIBUTIONS**
- We address the changing nature of relationships between real-world entities during evolving events.
- We propose to create an evolving event-specific Dynamic Knowledge Graph (DKG) which is complementary to the static information in traditional knowledge graphs such as DBpedia, Freebase and YAGO.

**APPLICATIONS**
- Question-answering systems: Query responses for temporally changing answers.
- Disaster response: Building a machine-understandable semi-structured knowledge repository that represents evolving situational awareness of events during a disaster response.
- Chatbots: DKG can provide a structured platform for the more accurate chatbot responses.

**US Presidential Election Schema**

**EVALUATION CRITERIA**

**REFERENCES**

2. Lalithsena, Sarasi. Domain-specific knowledge extraction from the web of data. Diss. Wright State University, 2018.

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We evaluate the performance of our approach with respect to the temporal facts associated with United States Presidential Election 2016 timeline article page from DBpedia.

\*http://twitris.knoesis.org


\*July 12 – Bernie Sanders endorses Hillary Clinton

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