

ALCIDE Platform and Temporal Processing for History

CENTER FOR INFORMATION TECHNOLOGY
DIGITAL HUMANITIES



ALCIDE: Analysis of Language and Content in a Digital Environment

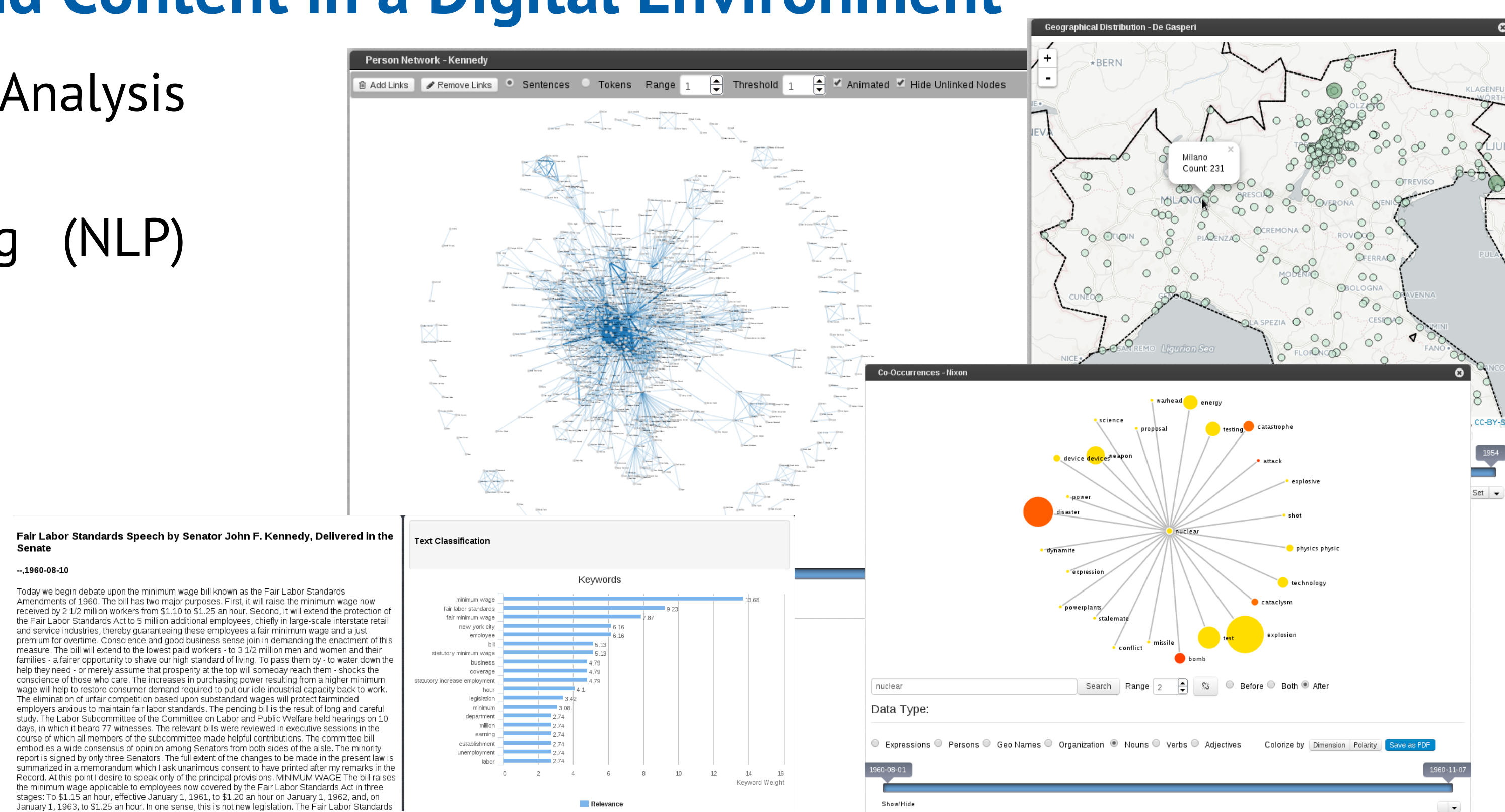
ALCIDE is a web-based platform for Content Analysis of contemporary history textual sources.

It combines Natural Language Processing (NLP) technologies and interactive visualizations.

MAIN FEATURES:

- Distant + Close readings
- Time bounded information
- Flexibility
- Multilinguality (EN and IT)

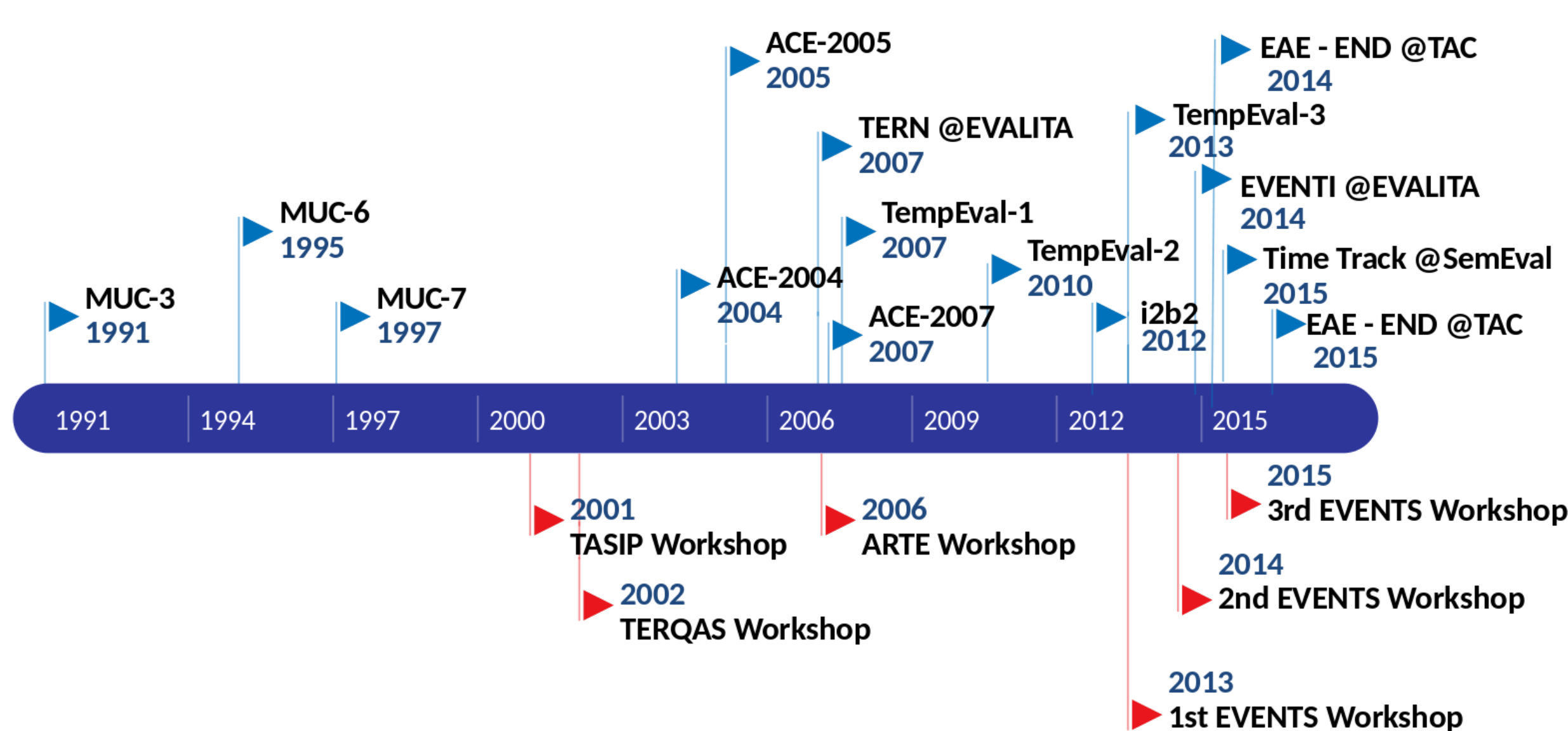
Many already integrated text analyses:
part-of-speech, lemmas, key-concepts
named entities, co-occurrences, persons' network.



Next step... TEMPORAL PROCESSING: an NLP task that aims at automatically detecting and interpreting EVENTS, temporal expressions and temporal relations in texts

Temporal Processing is an active area of research in the NLP community with many dedicated **workshops** and **evaluation campaigns**.

Application domains currently receiving considerable attention in NLP: **Social Media**, **Clinical**, **News**, **Biomedicine**.



RESEARCH QUESTIONS: was all the work devoted to temporal processing in NLP useful to serve real historical investigation? In particular, how should events be defined to be processable with NLP tools but also to comply with historical research?

Online questionnaire: “What is an event in History?”

WHY: leverage knowledge on the way events are defined by historians

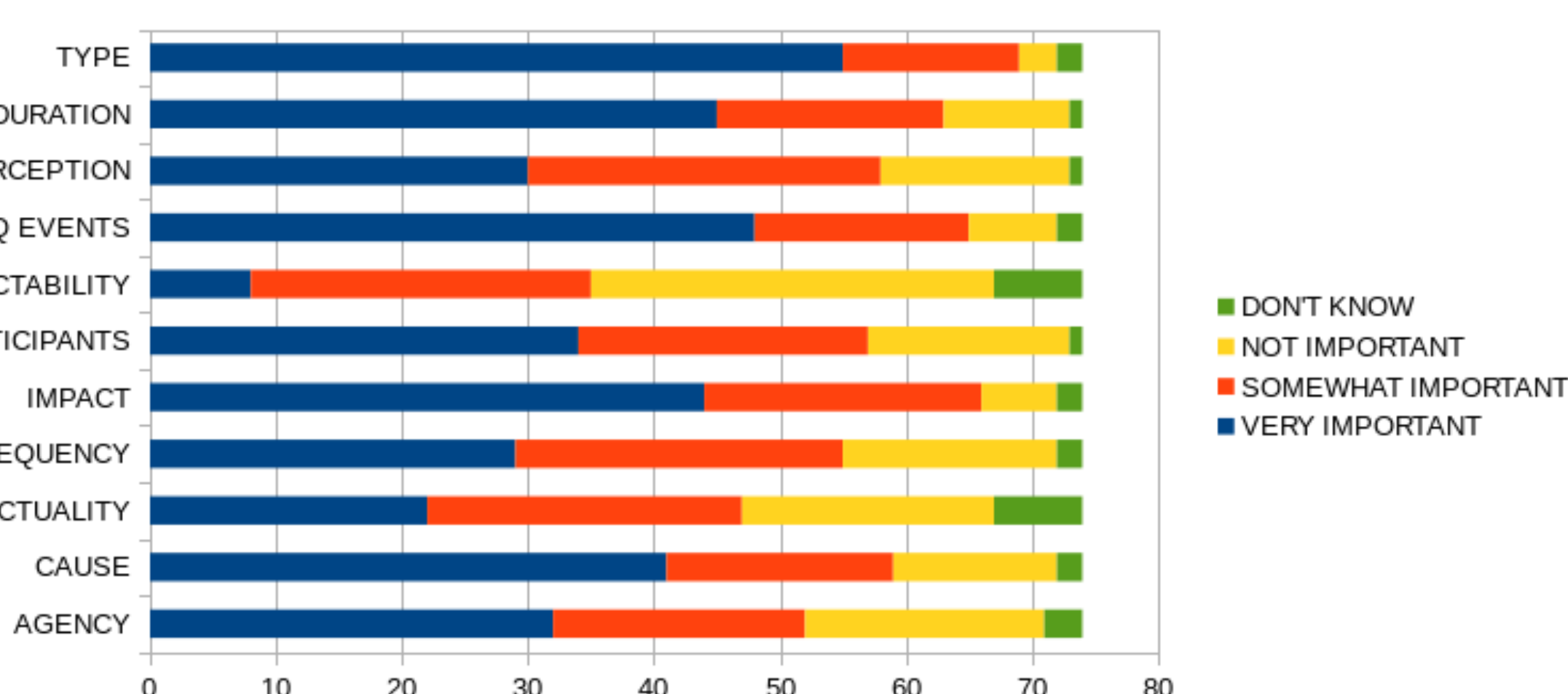
WHAT: 18 questions, distribution via social media and mailing-lists, 74 responses in 2 months

Linguistic annotation of events

1 After the key African state of Guinea, now **voting** with the Soviet Union in Communist foreign policy, after it **gained** its independence, a Russian Ambassador **showed** up the next day. Our Ambassador did not **show** up for 9 months.

2 After the key African state of Guinea, now **voting** with the Soviet Union in Communist foreign policy, after it **gained** its independence, a Russian Ambassador **showed** up the next day. Our Ambassador did not **show** up for 9 months.

Properties of events



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