MOTIVATION

- The dynamic nature of Web data gives rise to the need of understanding and analyzing the dynamics of individual datasets. As a matter of fact, the value of a dynamic dataset lies not only in its content, but also in its evolution history, which in some applications (e.g., trend analysis and identification), is more important than the data itself.
- Taking into account these considerations we have implemented the D2V, a tool that assists users in analyzing and visualizing the evolution history of dynamic RDF datasets.

KEY IDEAS

**Definition:** identify changes appropriate for the application at hand, and their semantics

**Representation:** definition of an ontology of changes and representation of detected changes as instances of this ontology

**Detection:** algorithmic identification of the deltas (based on the change definitions) as well as the storage of the detection results in the ontology

**Visualization:** presentation through appropriate interactive interfaces and visualization paradigms

CHANGE MANAGEMENT

- Two modes of creation: based on templates or advanced UI enable change definition
- Edit change definition
- Delete change definition
- Manage changes per user

VISUALIZATION VIEWS

- **Dataset centric:** entire evolution history along all ingested versions of the chosen dataset
- **Version centric:** changes are grouped by version pair
- **Change centric:** changes are grouped by change type
- **Term centric:** change instantiations involving this term

CONTRIBUTION

- We treat changes as first-class citizens, in a way that supports different modes of navigation on the deltas between any pair of versions, as well as the visualization of the evolution history of a given dataset.
- We provide an adequate user interface, allowing the management of high-level coarse-grained changes according to each curator needs.

THE D2V SYSTEM

Dataset-centric and version centric view

Change-centric

REFERENCE


URL: http://www.ics.forth.gr/isl/D2VSystem
VIDEO: https://www.youtube.com/watch?v=oY7qBBfcHYg