Crawl Me Maybe: An Iterative Linked Dataset Crawler

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Iterative Dataset Crawler

- 1) Metadata crawler
- 2) Instance-level crawler

What's the story?

- Evolution of Linked Datasets
- Flexible Crawl Definitions
- Iterative Crawls
- Capturing and Storing Diffs on-the-fly
- Dataset Crawler Web Interface

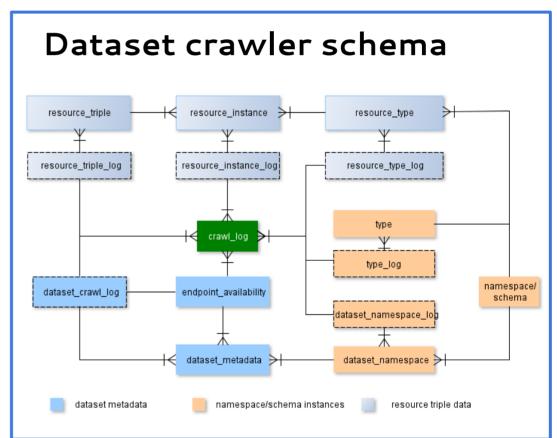
Crawl Log: t₁ Start Date: 19-03-2014 End Date: 19-03-2014 Crawl Log: t₀ Start Date: 18-03-2014 End Date: 18-03-2014 <resource_uri_2> <resource_uri_1> <resource_uri_3> <resource_uri_2> Live <resource uri 4> <resource uri 5> <resource_uri_n> <resource_uri_n> Crawled Resource Instances Resource Instances <resource_uri_2> predicate value_1 updated <resource_uri_2> predicate value_2 ✓ deleted <resource_uri_2> predicate value_3 deleted added not changed

Iterative crawling between time points t_o and t_1



Online diff computation

- 1) **Insertions**: Additions introduced in the dataset correspond to *insertions*.
- 2) **Deletions**: Over time, triples are deleted from a dataset due to various reasons ranging from persisting correctness to detection of errors.
- 3) **Updates**: Updates correspond to the *update* of one element of a triple <s,p,o>.



Key Features

- Capture dataset evolution
- Online diff computation based on three logging operators (insertions/updates/ deletions)
- Analyze the state of a dataset at any given time point
- Web interface which allows the setup of the crawler, and facilitates simple query functionalities over the crawled data