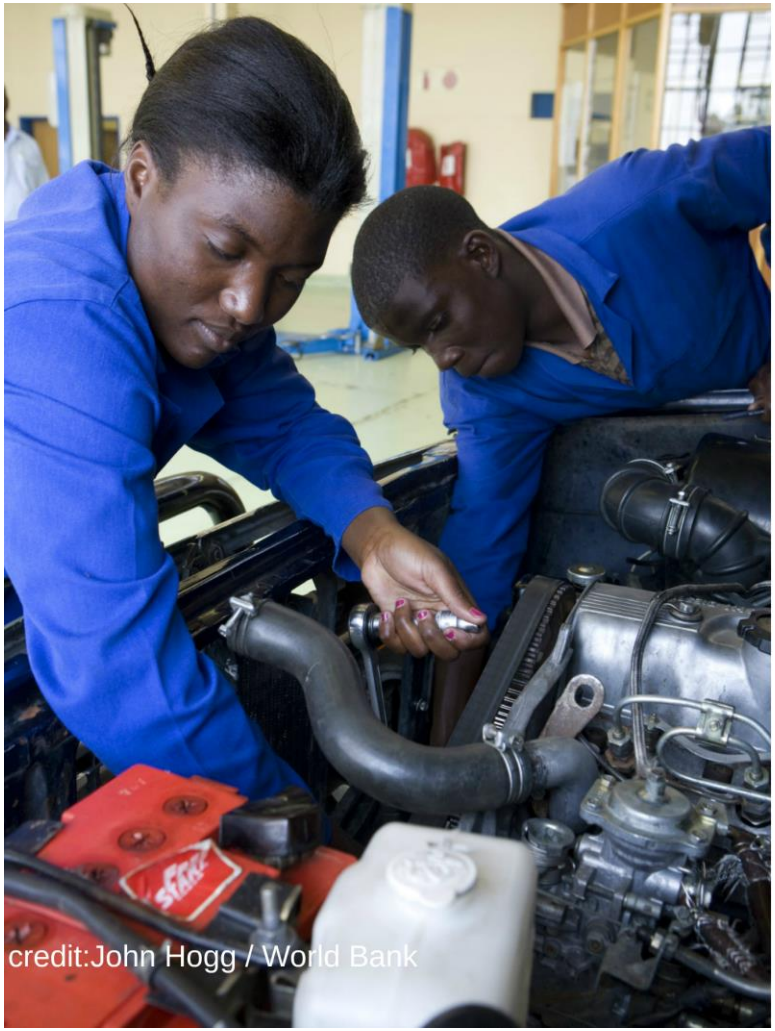
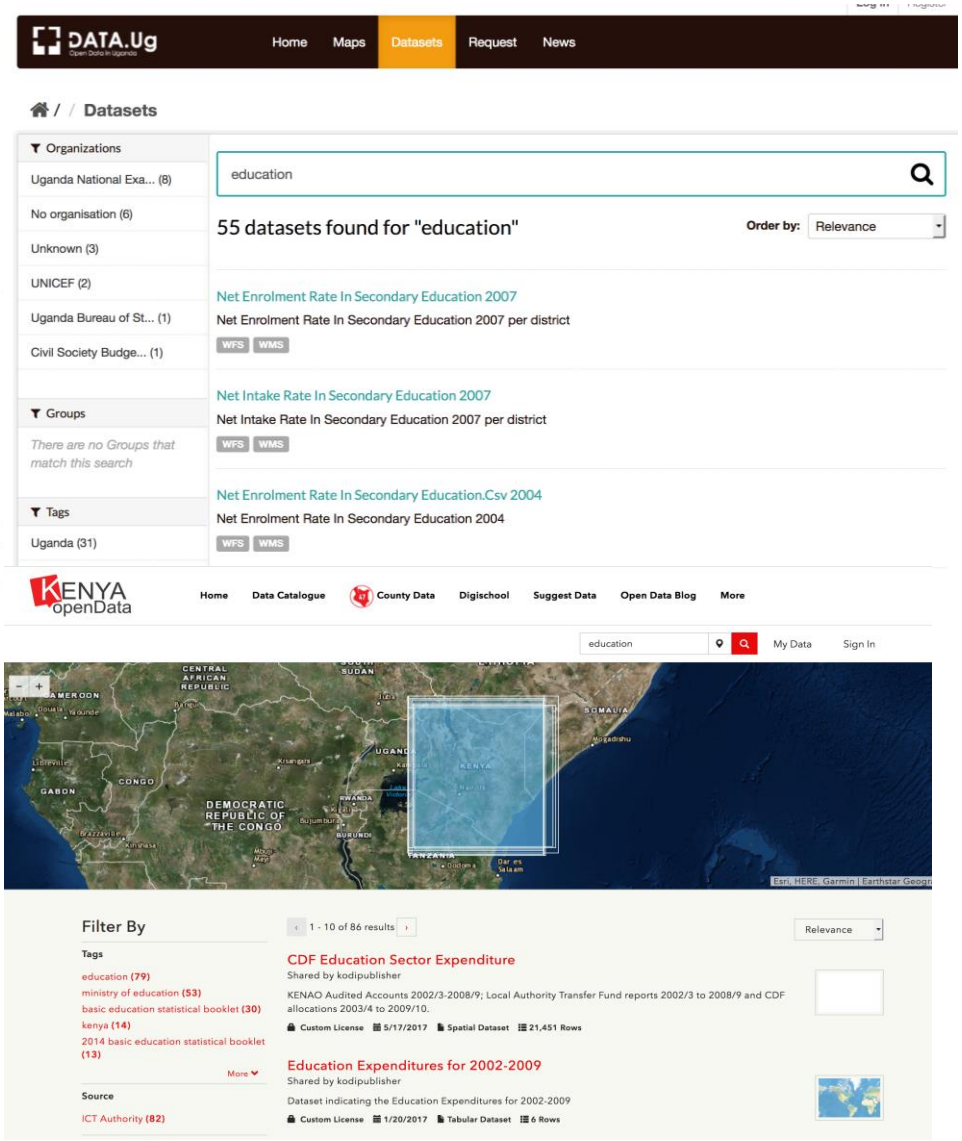
development initiatives

open (meta)data portals from the data scientist's point of view

June 2017

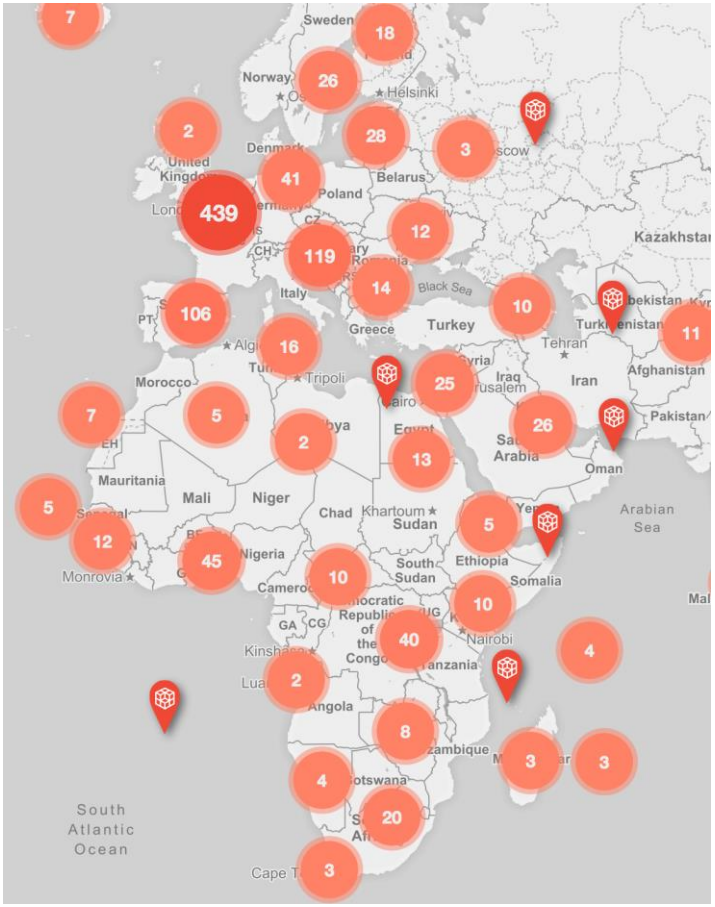
Data in my line of work



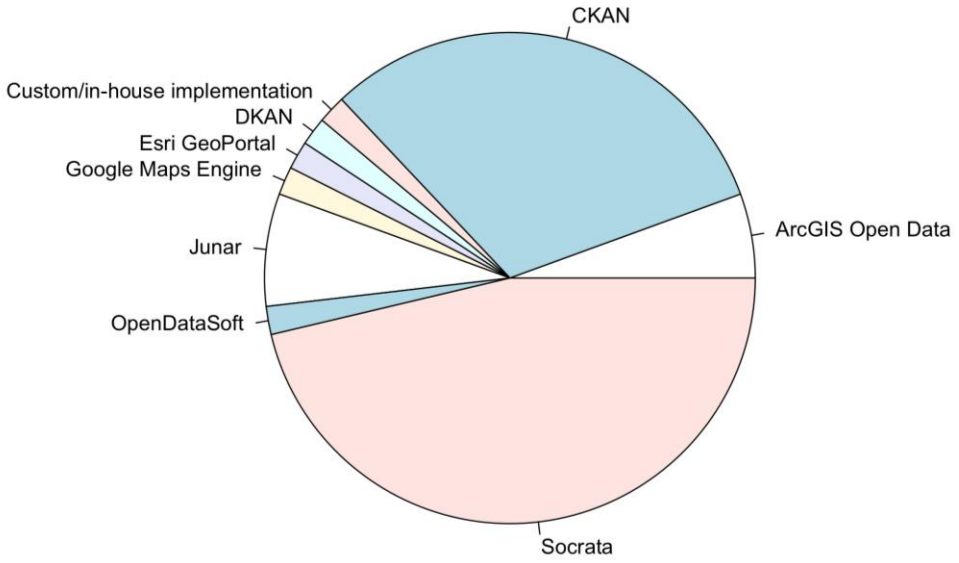


https://www.youtube.com/watch?v=wJTOo_1lFFE

Open (meta)data portals?



Source: opendatainception.io



W3C 'Data on the Web Best Practices' (w3.org/TR/dwbp/) encourages publishers to couple data with metadata at the time of publication. The majority of open data publishers respect this rule. However, the format in which metadata is published depends highly on the open data portal that publishes it.

How can you discover and reuse data through federated search when no common metadata schema is used across platforms?

Open data portals – what are the short-term solutions?

1. **Derivation**: when a new schema is created from an existing one, in which case the basic structure and common elements are conserved.
2. **Application profiles (AP)**: this approach ensures similar structure and common elements. APs usually emerge as a response to accommodating specific needs.
3. **Crosswalks**: entails mapping of the elements between metadata standards.
4. **Switching-across**: using switching schema as a switching mechanism among multiple schema. This is an alternative to crosswalks.
5. **Metadata framework**: a skeleton of metadata that can be used to concentrate efforts of a variety of actors towards a common standardisation in a given field.
6. **Metadata registry**: collection of metadata schemas.[1]

Example: Open Data Interoperability Platform (ODIP)

1. Zeng, ML and Chan LM, 2006. Metadata Interoperability and Standardization. D-Lib Magazine

Conclusions

Our July 2016 consultation paper[1] uses a simple linguistic analogy to deal with the lack of interoperability between data standards – you should either speak the same language or use a translator. The same sentiment becomes clear from the literature review of the metadata standards and the approaches to dealing with the lack of interoperability as listed above.

What is needed is a standardised way of publishing metadata by the open data portals:

- to allow users to find the context of the data in a simple and accessible way
- to allow a federated search across platforms so that the true power of metadata can be unleashed: the power of machine-readable discoverability (federated search) of data.

1. http://juds.joinedupdata.org/consultation-paper/

Thank You !

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