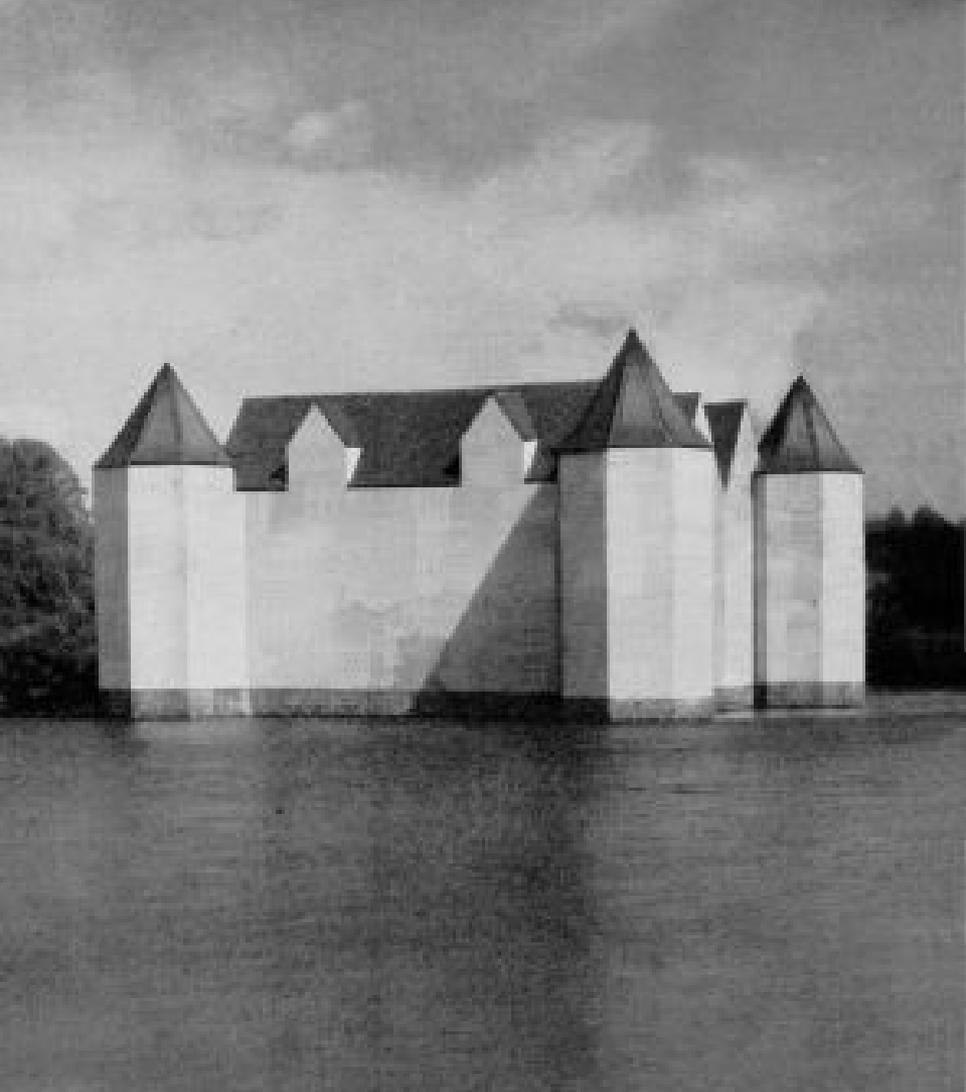# The future of Open Data catalogs: interoperability

Andreas Amsler @ opendata.ch/2017

27 June 2017, Lucerne

Lock-in

- – Applications
- – Databases
- – Data
- – …

... incentives to become interoperable?

"Added New Protection", Inkjetprint, 90 × 112cm, © 2009 Beni Bischof

Accessing Open Data ...

- opendata.swiss
- data.stadt-zuerich.ch
- opentransportdata.swiss
- europeandataportal.eu
- ...

... all these catalogs have got catalog APIs, too!

What's an API, and what is it for?

e.g. the CKAN action API

All of a CKAN website's core functionality (everything you can do with the web interface and more) can be used by external code that calls the CKAN API.

Using the CKAN action API (I)

Give me a JSON-formatted list of:
- all **datasets**:
    - https://opendata.swiss/api/3/action/**package_**list
    - https://data.stadt-zuerich.ch/api/3/action/**package_**list
- all **thematic categories**:
    - https://opendata.swiss/api/3/action/**group_**list
    - https://data.stadt-zuerich.ch/api/3/action/**group_**list
- all **keywords**:
    - https://opendata.swiss/api/3/action/**tag_**list
    - https://data.stadt-zuerich.ch/api/3/action/**group_**list
- all **organizations**:
    - https://opendata.swiss/api/3/action/**organization_**list

Using the CKAN action API (II)

Give me a full JSON representation of:
- a **dataset**: https://opendata.swiss/api/3/action/**package_**show?id=**federal-finances-institutions**
- a **keyword**: https://opendata.swiss/api/3/action/**tag_**show?id=**bevoelkerung**
- a **thematic category**: https://opendata.swiss/api/3/action/**group_**show?id=**tourism**

Give me a result for:
- datasets matching a **search term**: https://opendata.swiss/api/3/action/**package_**search?q=**soil**
- the **top 10 keywords** used by datasets:
  https://data.stadt-zuerich.ch/api/action/package_search?facet.field=[%22**tags**%22]&**facet.limit**=10&rows=0
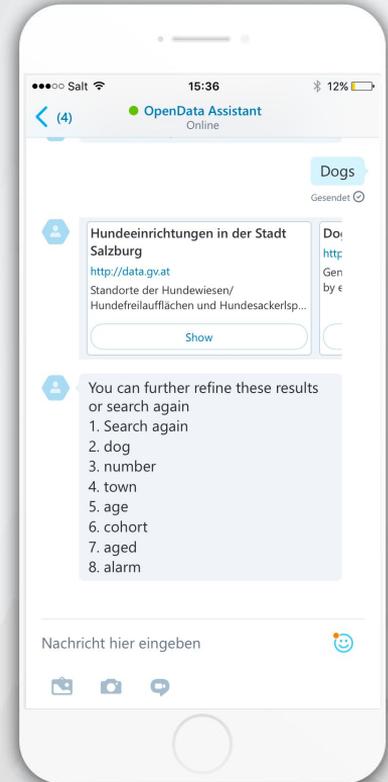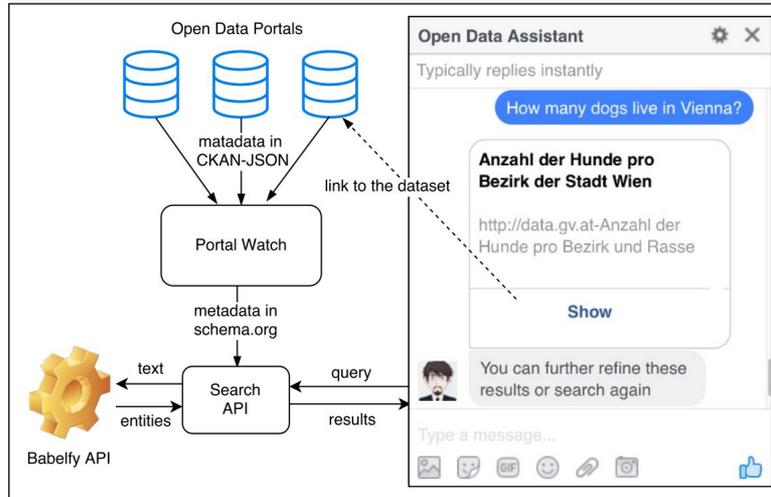
Using the CKAN action API (III)

Give me a result for:

- all **datasets of an organization**:
  https://opendata.swiss/api/3/action/organization_show?id=**kanton-basel-stadt**&include_**datasets**=true

Open Data Assistant chatbot

Cross-lingual search across multiple open data catalogs

Demo: https://www.youtube.com/watch?v=XtK2N0NmNWk&feature=youtu.be
Info: https://arxiv.org/pdf/1705.00894.pdf

Open Data catalog frontends ...

Exploit the interoperable potential built-in opendata.swiss:
- for data-publishers
- for data-users with special interests
- ...

... realise the benefits of interoperable applications!

Questions

- ...
- How can an efficient exchange between data-users and -publishers be enabled best?
- What are prerequisites to further advance our local and national open data catalogs into those directions?
- How can you – as a (potential) open data user – support open data delivery in Switzerland?

Contact

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