



### Improving The Usability Of Open Data Portals From A Business Process Perspective

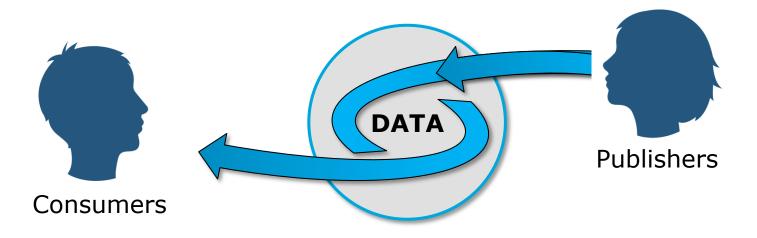
Claudio Di Ciccio, Javier D. Fernandez, Jürgen Umbrich

ODQ Workshop, 30.03.2014, Munich, Germany





#### Non-profit data marketplace



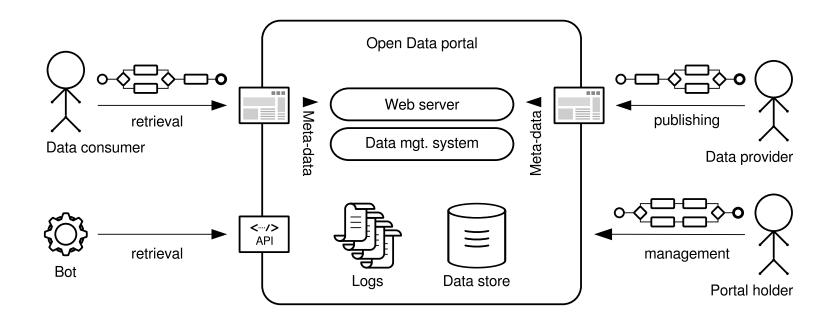






# FROM A BUSINESS PROCESS PERSPECTIVE











- Data Provider in publishing process
  - Driven by directives/regulations or ROI



- Data Consumers and retrieval process
  - Use-case relevant information

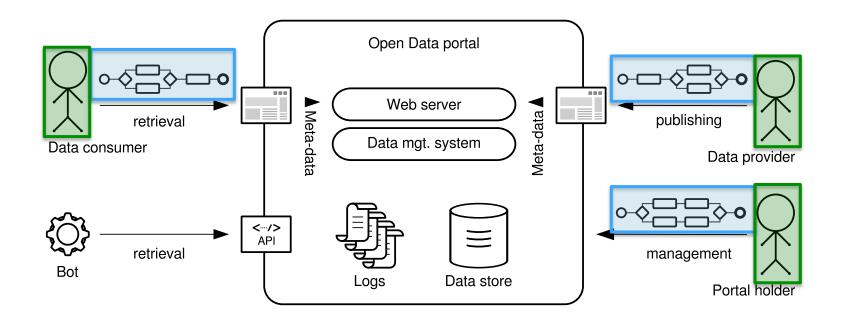


- ODP Holders and management processes
  - provider of storage, platform and meta data



# FROM A BUSINESS PROCESS PERSPECTIVE





**Actors** 

**Processes** 



#### **AVAILABLE DATA**



#### HTTP access logs

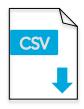
- high level interaction between users and portals
- page request, query terms, GET, POST
- Apache, NGINX

### ODP specific logs

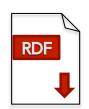
- internal processes
- submitted POST content, pagination, user filters
- PiWiki (Google Analytics)

#### Data store content

actual data of the store (iff uploaded)



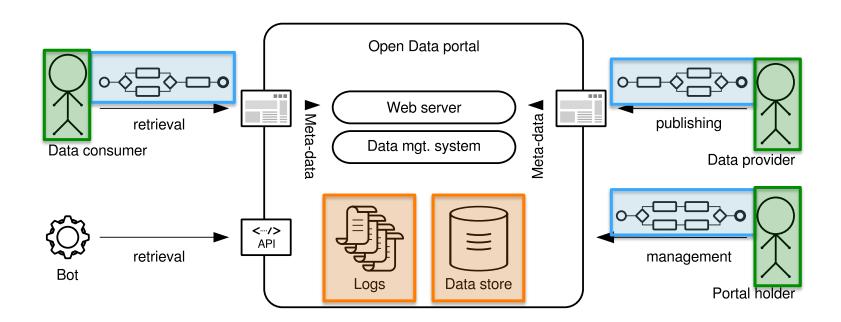






## FROM A BUSINESS PROCESS PERSPECTIVE





Actors

**Processes** 

Data





### **DISCOVERY & UNDERSTANDING**

- discovery and characterisation of user interaction behaviours
  - Define processes: search, browse, filter
  - Mine patterns/sequences ( search-> filter-> browse)
- **2. understanding** of the interplay among the different interaction behaviours
  - Understanding processes: search refinement, finding related datasets,



#### **OPTIMISATIONS**



- Interaction design
  - Adaptive User Interface
    - new filter, rearranging results
  - Change monitoring, usage audit and control
- Data quality
  - Meta-data cleaning, enrichment and reachability improvement
    - New tags, identify misleading information,
  - Data aggregation
    - Identify related data (commonly accessed)



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