Publishing OTTR Templates

Christian M. Hansen, Aibel
3rd OTTR User Forum, May 11th 2022

Motivation

- **Sharing OTTR Templates**
  - ○ **Within an organization**
  - ○ **Between organizations**

- **Resolvable IRIs – aka retrieve template definition by looking up the IRI**
  - ○ **Not always possible or practical!**
  - ○ **Dependency on remote services vs. local caching of templates**

- **Running Lutra as a RESTful microservice**
  - ○ **Must be able to retrieve *all* templates, incl. those for which the IRI is *not* resolvable**

- **When requesting template definition (even for ones with resolvable IRIs):**
  - ○ **When to return docTTR/HTML?**
  - ○ **If returning OTTR syntax; which one (wOTTR/stOTTR)?**
  - ○ **How to request template definition in a specific syntax?**

- **Claim: We need (yet another) OTTR specification for *publication* of templates!**
  - ○ **pOTTR is taken – what about lOTTR (l as in library)?**

aibel®

Return Format – Content Negotiation

- Proposal: Use Content Negotiation & Mime Types

- Return docTTR/HTML (default) if
  - Request header hasn't set `Accept` parameter
  - Request header is set to `Accept: text/html`

- Return stOTTR syntax if
  - Request header is set to `Accept: text/stottr`

- Return wOTTR syntax if
  - Request header is set to `Accept: text/wottr`

- Lutra should use this mechanism when retrieving templates

aibel®

Template Library – REST API

- **GET /list**
  - Return list of all templates defined in library

- **GET /template?iri=<URL-encoded-template-IRI>**
  - Return template definition in stOTTR syntax (default syntax)?
  - Return 302/307 (temp. redirect) with actual URL for retrieving template from library?
  - Return 404 if template is not defined/stored in library

- **GET /template?iri=<URL-encoded-template-IRI>&syntax=<OTTR-syntax>**
  - Return template definition in requested syntax (or use 302/307 + content negot. an actual URL?)

- **Other useful endpoints?**
  - Get template statistics, signature, dependencies, metadata
  - Inform of other (related or more authoritative) libraries? (Like DNS infrastructure)
  - POST/PUT-ing templates?

- **Template versioning as part of template IRI or explicitly from REST API?**

aibel®

Lutra: Interacting with Template Libraries

- **Lutra should be able to**
    1. Take one or more template library URLs as argument
    2. Lookup missing templates in template libraries provided in (1)
    3. Lookup missing templates in other libraries pointed to by libraries in (1) or (2)

- **Lookup order**
    - If template is found in a library, keep looking until all possibilities are exhausted?
    - Lookup priority: resolvable IRIs vs. libraries, library priority