Searching SELFIE

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Katharina Schleidt (DataCove), Sylvain Grellet & Abdelfettah Feliachi (BRGM), Nuno Oliveira, Simone Giannecchini & Andrea Aime (Geosolutions)
ELFIE

• Environmental Linked Feature Interoperability Experiment (https://opengeospatial.github.io/ELFIE/) a use case driven IE

• Organization: OGC, USGS, NZ Landcare Research, BRGM, NR-CAN, …

• Goals:
  – Increase interoperability while decreasing data duplication and maintenance overhead
  – Combine the power of web services with transparency of linked data
  – Encode relationships between and among environmental features
  – Utilize commonly used and easily adopted approaches
  – Encode highly general “preview” content for any feature: facilitate discoverability
Different views of the same Feature
- By using different JSON-LD contexts
- Based on Schema.org vocab and OGC domain ontologies
JSON-LD Encoding

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Outcomes & Use cases

- Engineering Report Presented to OGC
- JSON-LD contexts
- Example JSON-LD (static) files
- Web summary of use cases available now.
- Schema.org feedback. e.g. geometry encoding
- No Web Search demo
SELFIE

- Second Environmental Linked Feature Interoperability Experiment ([https://opengeospatial.github.io/SELFIE/](https://opengeospatial.github.io/SELFIE/))
  Organization: OGC, USGS, NZ Landcare Research, BRGM, NR-CAN, CSIRO, UK CEH, NASA, ...

- Objectives:
  - Evaluate a proposed resource model for multi-provider environmental feature and observation registries
  - Evaluate proposed HTTP behavior for non information resources and their representations
  - Design and evaluate linked data feature information index resources with media-type, language, and profile content negotiation as an extension of the building blocks provided by WFS3.
SELFIE: Methodology

• Refine of use cases developed for ELFIE
• Collate existing practices for the implementation of non-information, information index and data resources
• Define a simple ontology of linked feature resources (resource model)
• Define JSON-LD encoding practices for efficient and effective link crawling (ELFIE-1 based)
• Executing experiments that evaluate the 3 and 4 using publishable implementations (e.g. shared Jupyter Notebooks)
• Evaluate WFS 3.0 compliant services as an ‘engine’ facilitating the creation of the index and data information resources.
SELFIE: Discoverability

- Based on the ELFIE-1 preview JSON-LD context.
- Embedding JSON-LD description of features in index (informational) pages. e.g. GSIP (Groundwater Surface-Water Initial LOD Pilot) info pages
SELFIE : Discoverability

- Based on the ELFIE-1 preview JSON-LD context.
- Environment domain vocabularies: how to reuse them for indexing?
  - Should RE crawlers integrate OGC ontologies in their process?
  - Should OGC ontologies be integrated into schema.org? → schema.org domain specific vocabulary extensions
    - E.g. science-on-schema https://github.com/ESIPFed/science-on-schema.org, Bioschemas Types https://bioschemas.org/types/

- How and when such extensions are handled by SE?
SELFIE : Discoverability

• Who’s in the other end of the tunnel?
  – No team to discuss with, only local test and validation of JSON-LD through JSON-LD playground and Google structured data testing tool
  – Enlarge the questioning to other SE: Bing, Qwant (first contact)
To Be Continued…

• Join the Second Environmental Linked Features Interoperability Experiment

• Contacts:
Katharina Schleidt (DataCove - kathi@datacove.eu), Sylvain Grellet (BRGM - s.grellet@brgm.fr), Abdelfettah Feliachi (BRGM - a.feliachi@brgm.fr), Nuno Oliveira (Geosolutions - nuno.oliveira@geo-solutions.it), Simone Giannecchini (Geosolutions - simone.giannecchini@geo-solutions.it), Andrea Aime (Geosolutions - andrea.aime@geo-solutions.it)