FAIR Implementation Profile

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Italiadomani

FER Types II: Services

15:40-16:00
(Sander)

FAIR Supporting Services

FAIR Enabling Resources

- Identifier services
- Registry
- Authentication and authorization service

FAIR Supporting Resources

- Editor
- FAIR Representation service
- Provenance tracking service
- Validation service
- Web-API

https://github.com/gofair-foundation/FIP-training/wiki

Examples – Identifier Service

Identifier Service

A service that guarantees or references the identification of digital objects. It always provides the following for any digital object:

1) algorithms guaranteeing global uniqueness

2) policy document that guarantees persistence

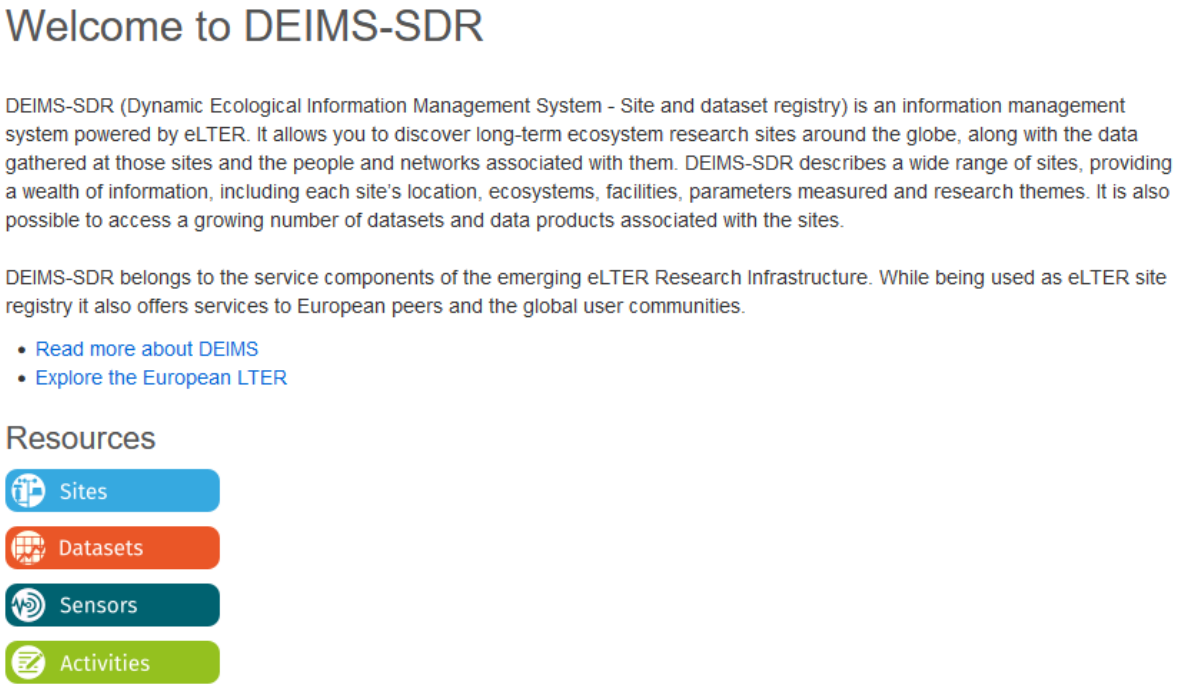
3) resolution of the identifier to machine-actionable metadata describing the object and its location.

So **not** for the identity of a person or an organisation but for example the indentifier of a file or document.

For example if you have a passport, a service that creates the identity of the person (national identification number) would is not considered here, but a services that gives each instance of a passport a globally unique number would be considered here. Because it is an algorithm that guarantees global uniqueness.

Examples – Registry

Registry
A service that indexes metadata and data and provides search over that index.



Examples – Authentication and authorization service

Authentication and authorization service

A service that mediates access to digital objects according to specified conditions.

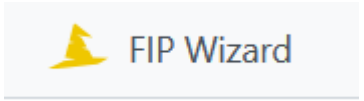
Passport example: Someone has to check your global unique passport number in a database but before that logs into the application using their credentials and a password.

But also: Company X does not gain access to certain citizen information because those citizens have in their access license not given consent for commercial use of their data.

Examples – Editor

Editor

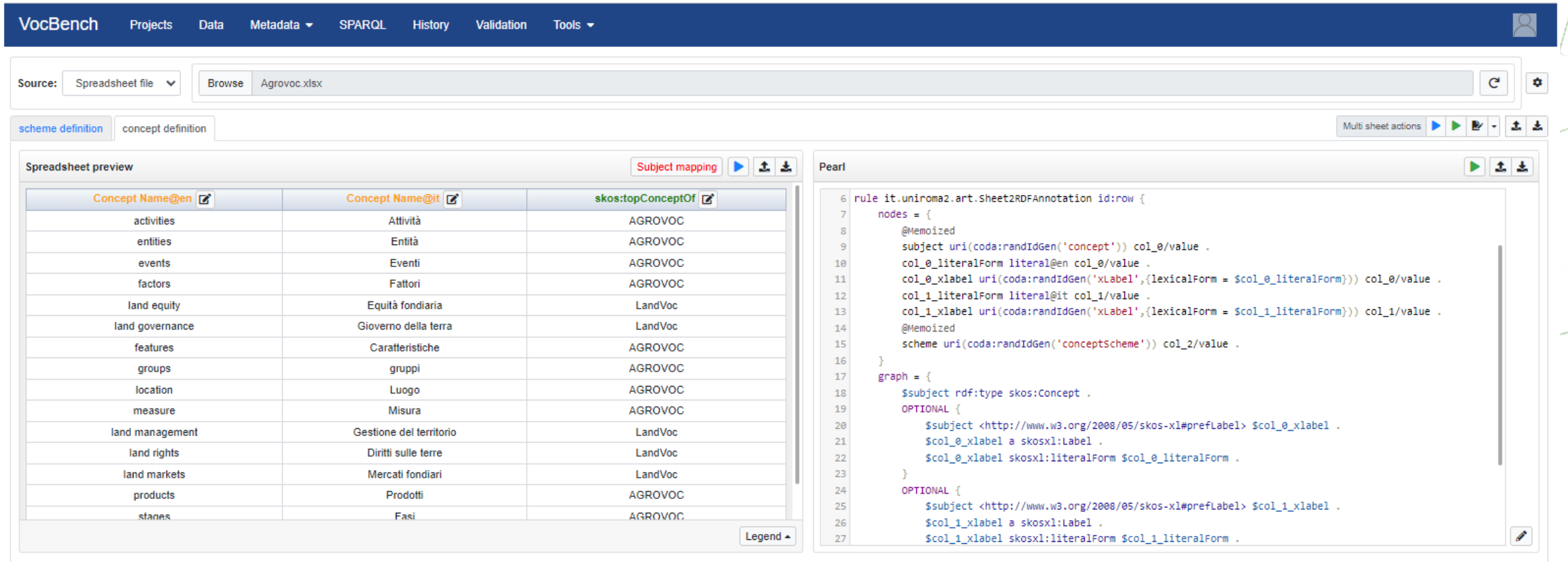
A service that provides a user-friendly interface for easy editing of metadata, vocabularies or crosswalks.



Examples – FAIR Representation service

FAIR Representation service

A transformation service that converts non-FAIR data into a FAIR representation using machine-readable knowledge representation languages.



Examples – Provenance tracking service

Provenance tracking service

A system that systematically captures, stores and manages detailed information about the origin, history, and lifecycle of digital objects creating metadata based on a provenance model.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  <accessDate>2010-01-25 15:15:36.742 PST</accessDate>
  <data>
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      <id>42031</id>
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      <numberOfClasses>293</numberOfClasses>
      <numberOfIndividuals>0</numberOfIndividuals>
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      <maximumDepth>6</maximumDepth>
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        <string>APO:0000039</string>
        <string>APO:0000064</string>
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        <string>APO:0000101</string>

        <string>APO:0000105</string>
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        <string>APO:0000213</string>
        <string>APO:0000215</string>
        <string>APO:0000255</string>
      </classesWithOneSubclass>

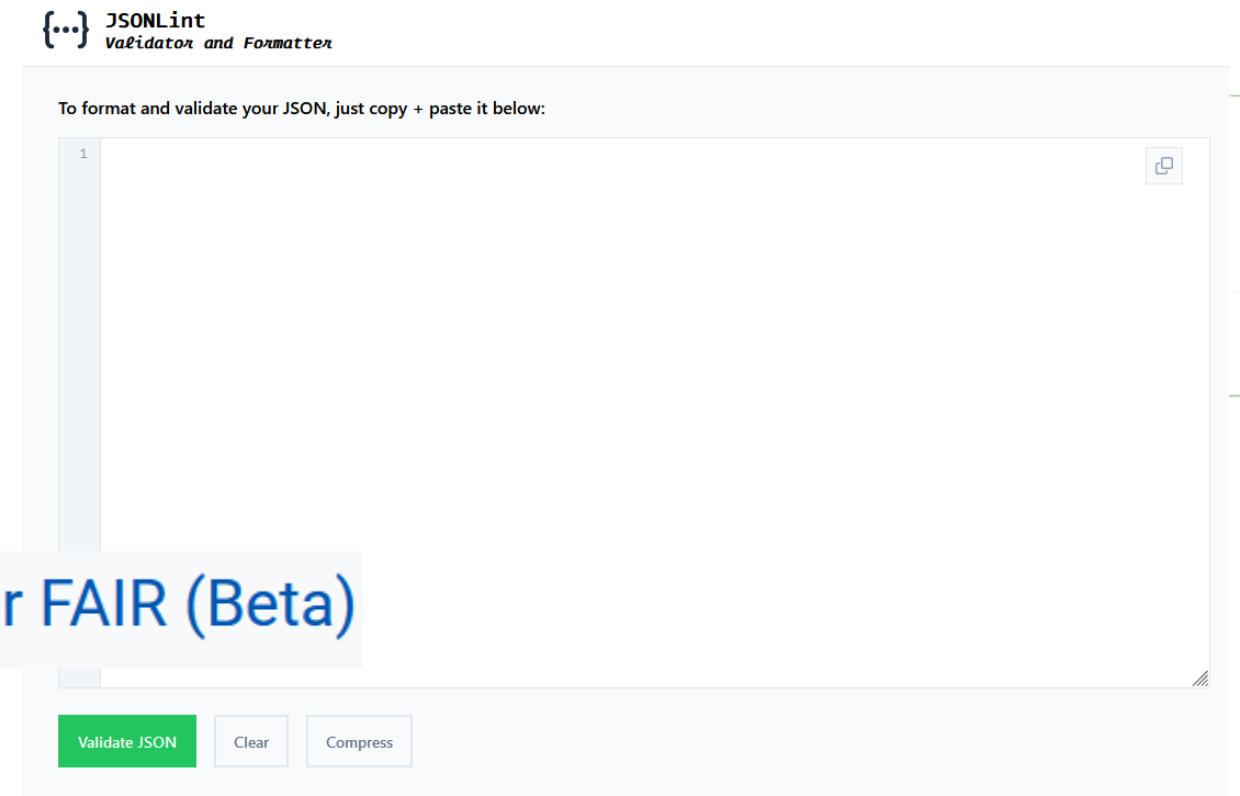
      <classesWithMoreThanXSubclasses/>
      <classesWithNoDocumentation/>
      <classesWithNoAuthor/>
      <classesWithMoreThanOnePropertyValue/>
    </ontologyMetricsBean>
  </data>
</success>
```


https://www.bioontology.org/wiki/Ontology_Metrics

Examples – Validation service

Validation Service

A system that automatically verifies the accuracy, completeness, or compliance of data, code or processes against predefined criteria or standards.



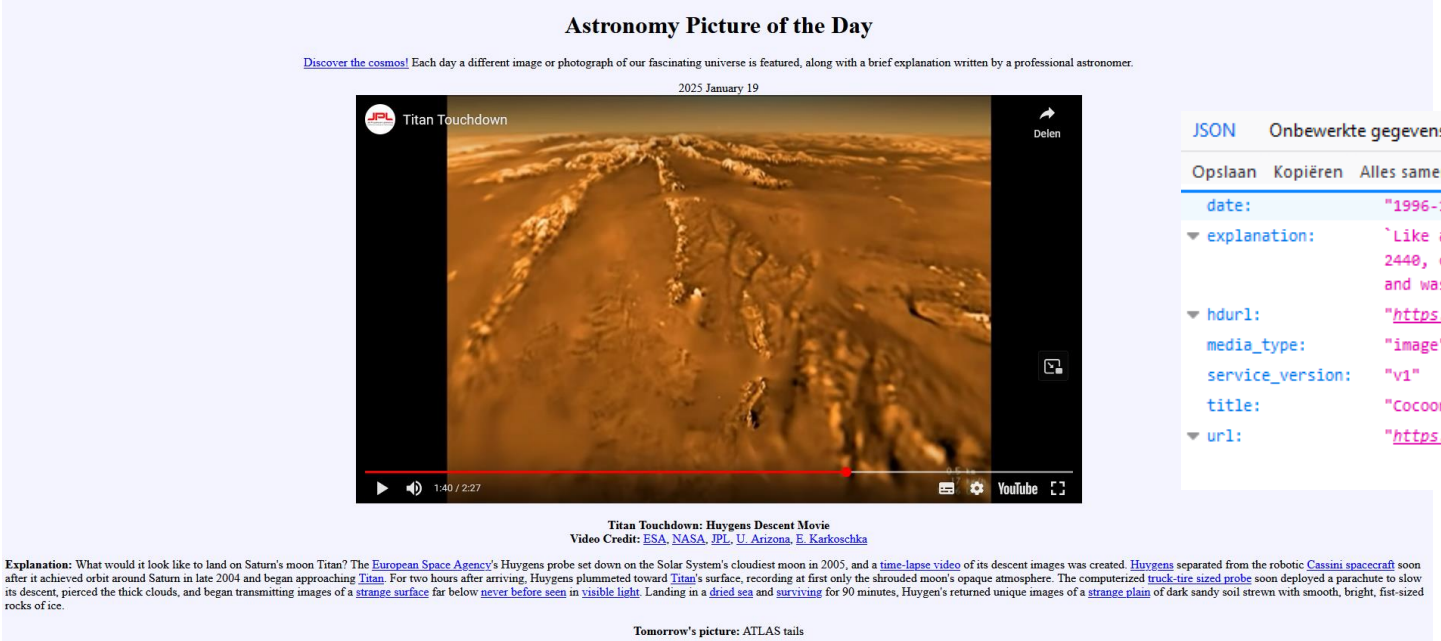
Ontology Pitfall Scanner for FAIR (Beta)

https://foops.linkeddata.es/about.html

Examples – Web-API

Web-API

An Application Programming Interface (API) for the World Wide Web that allows different software applications to communicate with each other.



Astronomy Picture of the Day

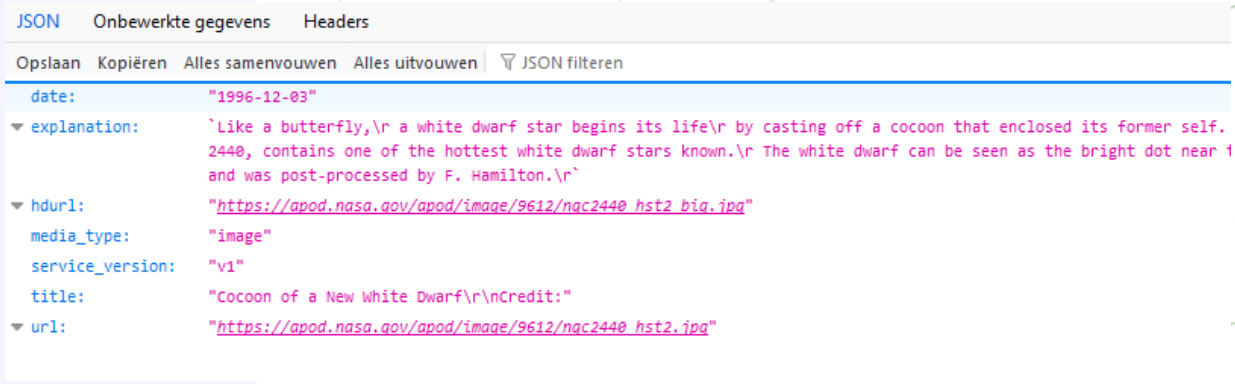
Discover the cosmos! Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

2025 January 19

Titan Touchdown: Huygens Descent Movie
Video Credit: ESA, NASA, JPL, U. Arizona, E. Karkoschka

Explanation: What would it look like to land on Saturn's moon Titan? The European Space Agency's Huygens probe set down on the Solar System's cloudiest moon in 2005, and a time-lapse video of its descent images was created. Huygens separated from the robotic Cassini spacecraft soon after it achieved orbit around Saturn in late 2004 and began approaching Titan. For two hours after arriving, Huygens plummeted toward Titan's surface, recording at first only the shrouded moon's opaque atmosphere. The computerized truck-tire sized probe soon deployed a parachute to slow its descent, pierced the thick clouds, and began transmitting images of a strange surface far below never before seen in visible light. Landing in a dried sea and surviving for 90 minutes, Huygen's returned unique images of a strange plain of dark sandy soil strewn with smooth, bright, fist-sized rocks of ice.

Tomorrow's picture: ATLAS tails



https://api.nasa.gov/planetary/apod?api_key=DEMO_KEY&date=1996-12-03