Linked Open Data

Introduzione e nuovi punti di vista

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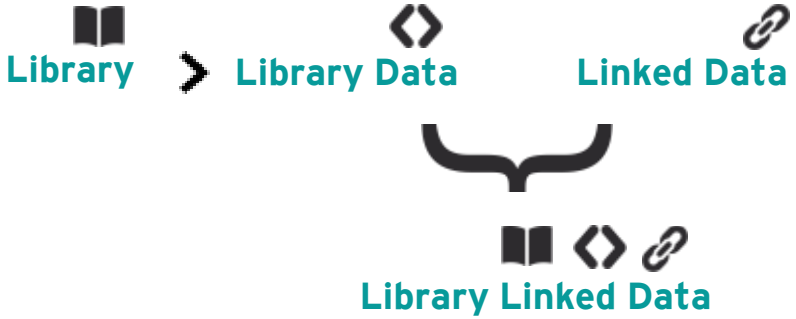
Library Linked Data

W3C Incubator Group final report

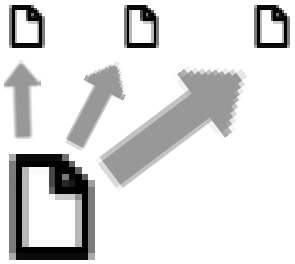
October 25, 2011

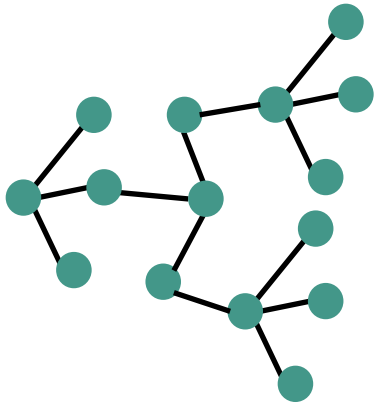


Key recommendations

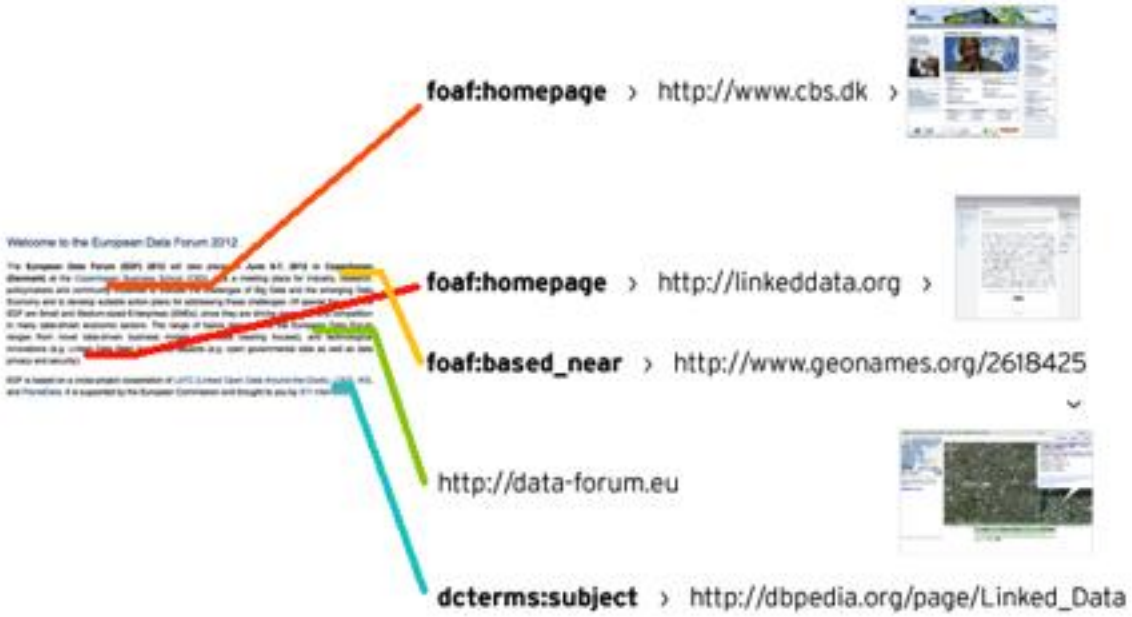
dataset standard conservazione

Web of Document





Web of Data


foaf:homepage › http://www.cbs.dk ›
foaf:homepage › http://linkeddata.org ›
foaf:based_near › http://www.geonames.org/2618425
http://data-forum.eu
dcterms:subject › http://dbpedia.org/page/Linked_Data

Linked Data Design Issues

Tim Berners Lee

June 18, 2009

Use URIs
as names for things

Use HTTP URIs
so that people can look up those names

Use the standards (RDF, SPARQL)
providing useful information

Include links to other URIs
so that they can discover more things

RDF

resource description framework

RDF is a standard model for data interchange on the Web

RDF è lo strumento base proposto dal W3C per la codifica, lo scambio e il riutilizzo di metadati strutturati

RDF consente l'interoperabilità tra applicazioni che si scambiano informazioni sul Web

persone

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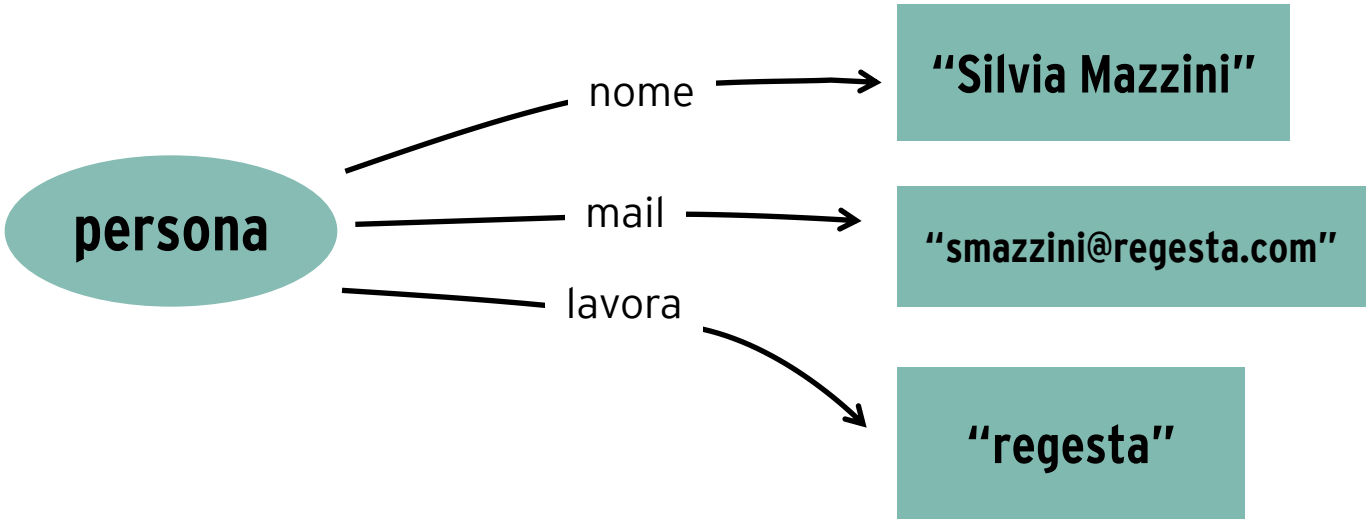
RDF
triple



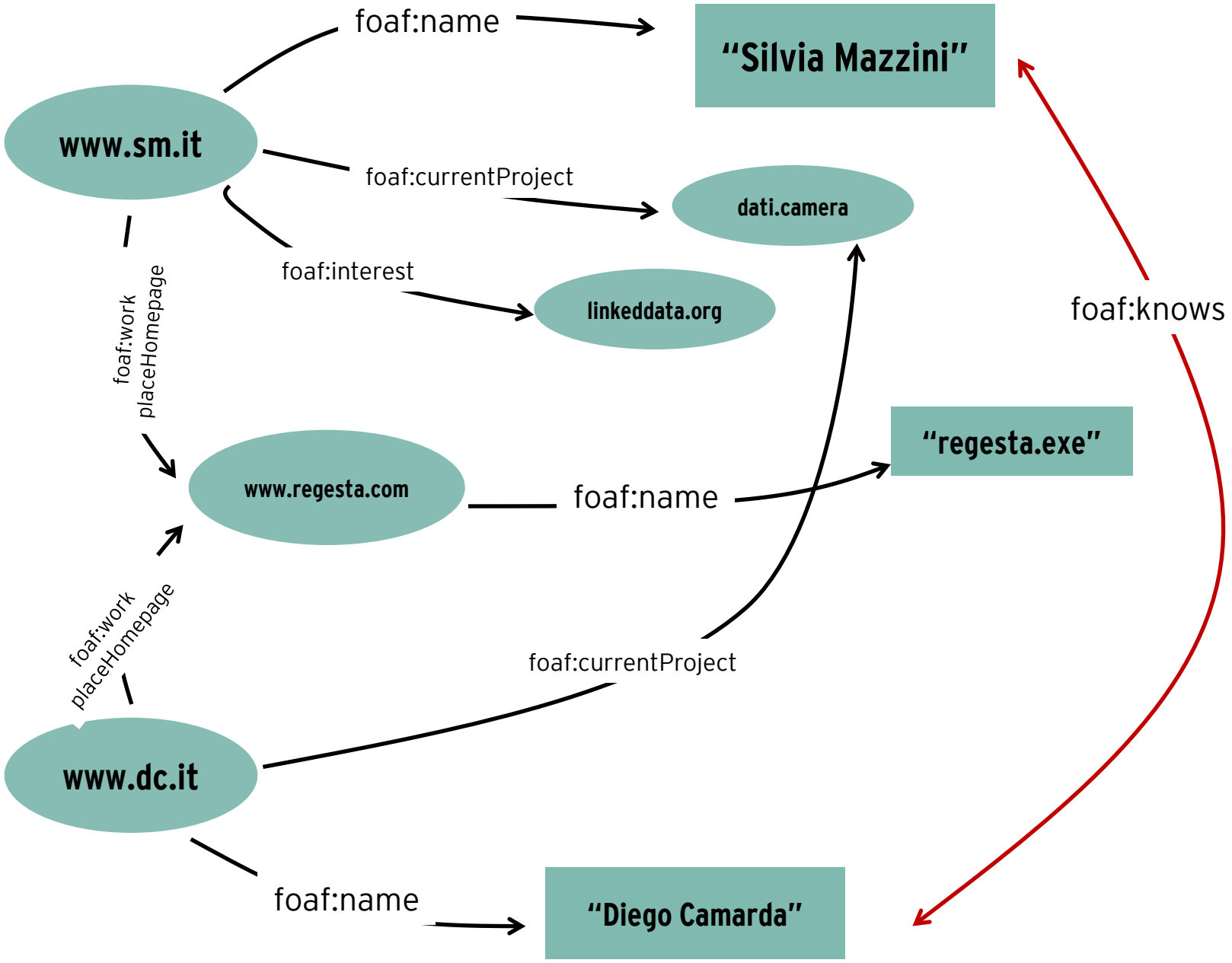
tripla

è l'unità informativa minima che si articola in soggetto (subject), relazione (predicate) e oggetto (object)

RDF

grafi

RDF
triple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"Silvia Mazzini"
www.sm.it
foaf:currentProject
dati.camera
foaf:interest
linkeddata.org
foaf:work placeHomepage
foaf:knows
"regesta.exe"
www.regesta.com
foaf:name
foaf:work placeHomepage
foaf:currentProject
www.dc.it
foaf:name
"Diego Camarda"

è una rappresentazione formale, condivisa ed esplicita
di una concettualizzazione di un dominio di interesse

Ontologia

- foaf
- dublin core
- skos
- geonames
- ...

I ♥ reuse

è una vocabolario per mettere in collegamento le persone

foaf

```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
         xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
         xmlns:foaf="http://xmlns.com/foaf/0.1/">
  <foaf:Person>
      <foaf:name>Leigh Dodds</foaf:name>
      <foaf:firstName>Leigh</foaf:firstName>
      <foaf:surname>Dodds</foaf:surname>
      <foaf:mbox_sha1sum>7100fbc3ca 5</foaf:mbox_sha1sum>
      <foaf:knows rdf:resource="#dan">
  </foaf:Person>
  <foaf:Person rdf:ID="dan">
      <foaf:name>Dan Brickley</foaf:name>
      <foaf:mbox_sha1sum>15fc210f9e9137262c252e</foaf:mbox_sha1sum>
      <rdfs:seeAlso rdf:resource="http://rdfweb.org/people/danbri/foaf.rdf"/>
   </foaf:Person>
 </rdf:RDF>
```

è una vocabolario utile per descrivere qualsiasi materiale digitale

dublin core

```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
         xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
         xmlns:dc="http://purl.org/dc/elements/1.1/">
       <dc:title>Dublin Core Metadata Element Set: Reference Description</dc:title>
       <dc:creator>Stuart Weibel</dc:creator> <dc:creator>Eric Miller</dc:creator>
       <dc:subject>Metadata, Dublin Core element, resource
description</dc:subject>
       <dc:description>This document is the reference description of the Dublin
Core Metadata Element Set designed to facilitate resource
discovery.</dc:description>
       <dc:Publisher>OCLC Online Computer Library Center, Inc.</dc:publisher>
       <dc:identifier>http://purl.org/metadata/dublin_core_elements</dc:identifier>
       <dc:format>text/html</dc:format>
       <dc:Type>Technical Report</dc:Type>
       <dc:Language>en</dc:Language>
       <dc:date>1997-11-02</dc:date>
 </rdf:RDF>
```

skos

simple knowledge
organization system

è un linguaggio basato su RDF creato per rappresentare glossari, classificazioni, tassonomie e qualsiasi tipo di vocabolario strutturato

```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:skos="http://www.w3.org/2004/02/skos/core#"
xmlns:skosext="http://www.w3.org/2004/02/skos/extensions#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">
  <skos:Concept rdf:about="http://www.biblio.liuc.it/1661">
      <skos:prefLabel>Economia</skos:prefLabel>
      <skos:broader rdf:resource="http://www.biblio.liuc.it/4591">Scienze
sociali</skos:broader>
     <skos:narrower rdf:resource="http://www.biblio.liuc.it/318">Aspetti
economici</skos:narrower>
      <skos:narrower
rdf:resource="http://www.biblio.liuc.it/1660">Econometria</skos:narrower>
      <skos:related rdf:resource="http://www.biblio.liuc.it/scripts/1047">Condizioni
economiche</skos:related>
      <skos:related rdf:resource="http://www.biblio.liuc.it/1640">Dottrine
economiche</skos:related>
      <skos:related rdf:resource="http://www.biblio.liuc.it/5010">Storia
economica</skos:related>
      <skos:scopeNote>BNCF con il significato di "attivita' economiche". Usare solo in
riferimento alla disciplina.</skos:scopeNote>
    </skos:Concept>
</rdf:RDF>
```

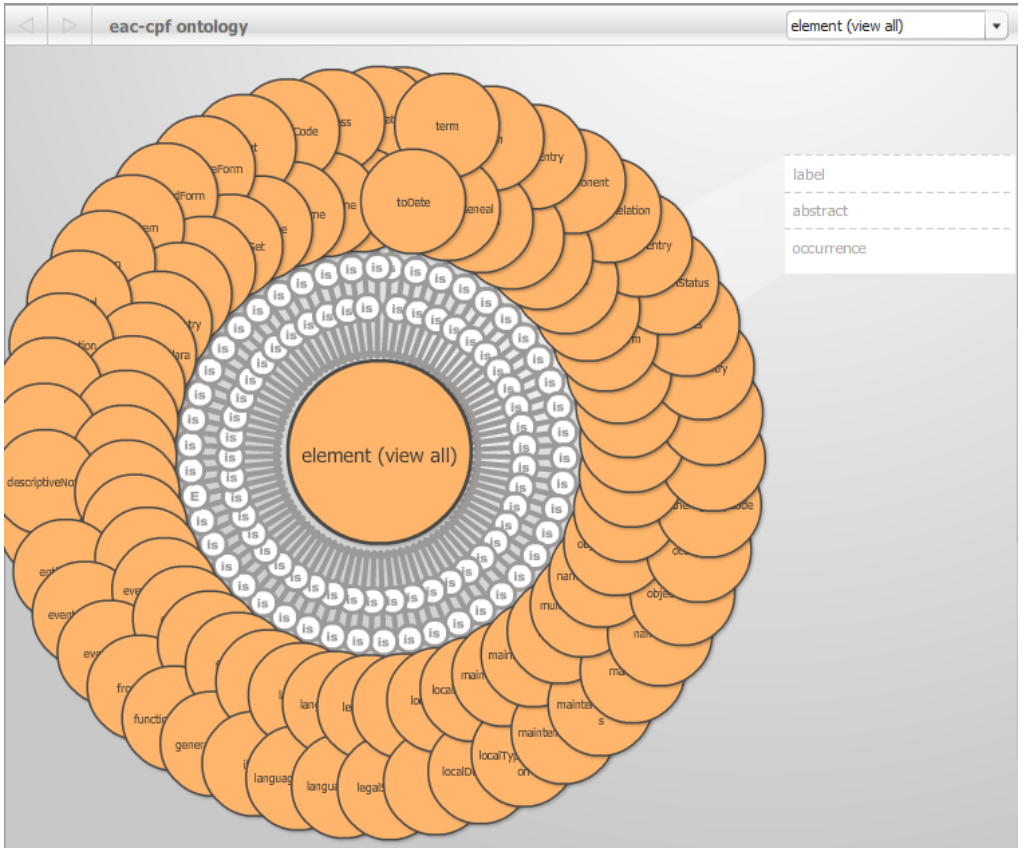
è un database geografico *open* con oltre 10 milioni di nomi di luogo, disponibili in formato rdf

geonames

```
<rdf:RDF xmlns:cc="http://creativecommons.org/ns#" xmlns:dcterms="http://purl.org/dc/terms/"
xmlns:foaf="http://xmlns.com/foaf/0.1/" xmlns:gn="http://www.geonames.org/ontology#"
xmlns:owl="http://www.w3.org/2002/07/owl#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:wgs84_pos="http://www.w3.org/2003/01/geo/wgs84_pos#">
        <gn:Feature rdf:about="http://sws.geonames.org/3169070/">
                <rdfs:isDefinedBy>http://sws.geonames.org/3169070/about.rdf</rdfs:isDefinedBy>
                <gn:name>Rome</gn:name>
                <gn:officialName xml:lang="en">Rome</gn:officialName>
                <gn:featureClass rdf:resource="http://www.geonames.org/ontology#P"/>
                <gn:featureCode rdf:resource="http://www.geonames.org/ontology#P.PPLC"/>
                <gn:countryCode>IT</gn:countryCode>
                <gn:population>2563241</gn:population>
                <wgs84_pos:lat>41.89474</wgs84_pos:lat>
                <wgs84_pos:long>12.4839</wgs84_pos:long>
                <gn:parentFeature rdf:resource="http://sws.geonames.org/3169071/"/>
                <gn:parentCountry rdf:resource="http://sws.geonames.org/3175395/"/>
                <gn:parentADM1 rdf:resource="http://sws.geonames.org/3174976/"/>
                <gn:parentADM2 rdf:resource="http://sws.geonames.org/3169069/"/>
                <gn:parentADM3 rdf:resource="http://sws.geonames.org/3169071/"/>
                <gn:nearbyFeatures rdf:resource="http://sws.geonames.org/3169070/nearby.rdf"/>
                <gn:locationMap rdf:resource="http://www.geonames.org/3169070/roma.html"/>
                <gn:wikipediaArticle rdf:resource="http://af.wikipedia.org/wiki/Rome"/>
                <rdfs:seeAlso rdf:resource="http://dbpedia.org/resource/Rome"/>
        </gn:Feature>
</rdf:RDF>
```

eac-cpf

è un vocabolario per la descrizione dei soggetti produttori di archivio in RDF



regesta.exe

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vox +390637501056