"What You Can Do with I&R Linked Data that You Couldn't Do Before"
but first … a little background

● heritage of AIRS Linked Data
  ● Tim Berners-Lee, original dilemma
  ● AIRS XML Schema, original dilemma
● comparison with other *methodologies*
  ○ browseable published web links, same old web
  ○ can be open or protected data
● Semantic Web 101, Web 3.0
● use within new apps/websites or existing ones; it is lower level data plumbing
the rules of the road = the vocab

...but if you break the rules = no big deal
Sharing

- acts like a single database, but provided by a federation of data sharing I&Rs
- receive only what you ask for
- doesn’t matter what vendor/system
- just uses regular web (http, urls for jumping around and for ids)
search

• shows you related things you might not have expected to find
• mash-ups with other Linked Data sets around the world (dbpedia, nyt, libraries, cities, loc)
• can browse the urls of any Linked Data Set, like a library
All 9,866,539 buildings in the Netherlands, shaded according to year of construction. Data from BAG (January 2015), via CitySDK I.D API. Map made with TileMill by Bert Spaan, Waag Society, inspired by BKLYNR. Map errors can be reported on the Kadaster’s website.

The source code and TileMill project can be found on GitHub. High-res prints are available in our web shop.

Legend

- < 1800
- 1800 - 1850
- 1850 - 1900
- 1900 - 1930
- 1930 - 1945
- 1945 - 1960
- 1960 - 1975
- 1975 - 1985
- 1985 - 1995
- 1995 - 2005
- > 2005

Data (click on building for data)
example searches

- All bus ticket voucher services that are within 1 mile of the city center
- All agency names that start with the letter “P” in western states.
- Phone number and emails for all Spanish language translation services for agencies that have more than 4 service locations
- All community medical clinics in Denver that are open now.
uses existing standards

- **vcard** - addresses and contacts
- **iCalendar** - hours of operation
- popularity contests for most common way to do things
Workflow, so far...

Spreadsheet of Minimum Viable Vocabulary

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Address</th>
<th>Website</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abilene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Info Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connecticut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleveland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Angeles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miami</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
live demo of I&R Linked Data

live demo of I&R Linked Data
PREFIX vcard: <http://www.w3.org/2006/vcard/ns#>
SELECT ?subject ?object
WHERE {
{SERVICE <http://104.154.69.83/Abilene/sparql> {?subject vcard:organization-name ?object}}
UNION
{SERVICE <http://104.197.59.112/Cleveland/sparql> {?subject vcard:organization-name ?object}}
UNION
{SERVICE <http://23.251.152.188/Ontario/sparql> {?subject vcard:organization-name ?object}}
UNION
{SERVICE <http://104.197.91.29/Michigan/sparql> {?subject vcard:organization-name ?object}}
UNION
{SERVICE <http://146.148.70.215/BayArea/sparql> {?subject vcard:organization-name ?object}}
UNION
}

Showing 1 to 7 of 7 entries

<table>
<thead>
<tr>
<th>subject</th>
<th>object</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://demoabilene.communityyos.org/Agency_1">http://demoabilene.communityyos.org/Agency_1</a></td>
<td>Energy Aid of the Metropolis</td>
</tr>
<tr>
<td><a href="https://211oh.org/id/Agency_1">https://211oh.org/id/Agency_1</a></td>
<td>&quot;CLEVELAND HOUSING NETWORK&quot; ^xsd:string</td>
</tr>
<tr>
<td><a href="http://Ontario211.ca/Agency_1">http://Ontario211.ca/Agency_1</a></td>
<td>&quot;TORONTO, STREETS TO HOMES ASSESSMENT AND REFERRAL CENTRE&quot; ^en</td>
</tr>
<tr>
<td><a href="https://infocenter.org/id/agency-1">https://infocenter.org/id/agency-1</a></td>
<td>&quot;Southgate Michigan Works&quot; ^xsd:string</td>
</tr>
<tr>
<td><a href="http://uwba.org/id/Agency_1">http://uwba.org/id/Agency_1</a></td>
<td>&quot;SWORDS TO PLOWSHARES&quot; ^xsd:string</td>
</tr>
<tr>
<td><a href="https://www.211ct.org/id/Agency_1">https://www.211ct.org/id/Agency_1</a></td>
<td>CONNECTICUT CHILDREN'S MEDICAL CENTER</td>
</tr>
<tr>
<td><a href="https://datalink.switchboardmiami.org/Agency_1">https://datalink.switchboardmiami.org/Agency_1</a></td>
<td>&quot;CAMILLUS SOUTH DADE&quot; ^xsd:string</td>
</tr>
<tr>
<td>taxonomy</td>
<td>taxonomy_code</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><a href="https://demoabilenecommunityos.org/Taxonomy_1">https://demoabilenecommunityos.org/Taxonomy_1</a></td>
<td>BV-8900.9300-950</td>
</tr>
<tr>
<td><a href="http://211oh.org/Taxonomy_1">http://211oh.org/Taxonomy_1</a></td>
<td>FT-4500.1800</td>
</tr>
<tr>
<td><a href="https://infocenter.org/id/Taxonomy-1">https://infocenter.org/id/Taxonomy-1</a></td>
<td>ND</td>
</tr>
<tr>
<td><a href="http://iwbca.org/id/Taxonomy_1">http://iwbca.org/id/Taxonomy_1</a></td>
<td>BH-3800.7000</td>
</tr>
<tr>
<td><a href="http://datalink.switchboardmiami.org/Taxonomy_1">http://datalink.switchboardmiami.org/Taxonomy_1</a></td>
<td>BH-1800.8600</td>
</tr>
</tbody>
</table>
```
PREFIX airs: <http://raw.githubusercontent.com/airs-Linked-Data/lovd/latest/src/airs_vocabulary.ttl#>
PREFIX vcard: <http://www.w3.org/2006/vcard/ns#>
PREFIX dct: <http://purl.org/dc/terms/>

SELECT ?site_service ?taxonomy_code ?taxonomy_term
WHERE {
  SERVICE <http://104.154.69.83/Abilene/sparql> {
    ?site_service airs:hasTaxonomy ?taxonomy. 
  }
  UNION
  SERVICE <http://104.197.59.112/Cleveland/sparql> {
    ?site_service airs:hasTaxonomy ?taxonomy. 
  }
  UNION
  SERVICE <http://23.251.152.188/Ontario/sparql> {
    ?site_service airs:hasTaxonomy ?taxonomy. 
  }
}
```

<table>
<thead>
<tr>
<th>site_service</th>
<th>taxonomy_code</th>
<th>taxonomy_term</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://211oh.org/SiteService_1">https://211oh.org/SiteService_1</a></td>
<td>&quot;FT-4500.1800&quot;</td>
<td>&quot;Eviction Prevention Assistance&quot;</td>
</tr>
<tr>
<td><a href="https://infocenter.ild/SiteService-1">https://infocenter.ild/SiteService-1</a></td>
<td>&quot;ND&quot;</td>
<td>&quot;Employment Services&quot;</td>
</tr>
<tr>
<td><a href="http://uwba.org/SiteService_1">http://uwba.org/SiteService_1</a></td>
<td>&quot;BH-3800.7000&quot;</td>
<td>&quot;Rent Payment Assistance&quot;</td>
</tr>
<tr>
<td><a href="https://datalink.switchboardmiami.org/SiteService_1">https://datalink.switchboardmiami.org/SiteService_1</a></td>
<td>&quot;BH-1800.8500&quot;</td>
<td>&quot;Homeless, Shelter&quot;</td>
</tr>
</tbody>
</table>
all the agency names in the pilot (we only have a little data; look at the bottom of the page for all the results listed)
http://tinyurl.com/m4mjtkq

all the taxonomy codes
http://tinyurl.com/nxabelv

all the taxonomy codes, looking first at each site service (which loses a result or so, since some sites associate taxonomies with services, instead, etc.
http://tinyurl.com/mu4kwhh
links

Videos
http://www.ted.com/talks/tim_berners_lee_on_the_next_web
https://www.youtube.com/watch?v=4x_xzT5eF5Q

More Reading
https://github.com/airs-linked-data/pilots/wiki/Reading-Room

Pilot
https://github.com/airs-linked-data/pilots/wiki/Listing-Of-Pilot-Sites

Geek out into the Future
http://www.w3.org/TR/ldp/

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