This Is The Most Informal Talk You Will Ever Hear About a Formal Topic

Ben Fields - Goldsmiths University of London
Kevin Page - University of Southampton

or

The Semantic Web

and why you should care

Semantic Web

Semantic Web

Semantic

meaning

machine readable

machine readable
meaning

self-describing

machine readable

meaning

Why RDF?

self-describing
machine readable
meaning

What is RDF?

RDF is a model

Is that it?

Yes, that's it.

The model can be serialized as XML

The model can be serialized as XML

It's pig ugly

The model can be serialized as XML

It's pig ugly

That's fine.
Machines eat ugly for breakfast

Honestly, don’t worry

RDF != RDF/XML

Our model can describe models

Specific Models

Specific Models

About stuff

Specific Models

About Things

Specific Models About Things

Let's call these ontologies

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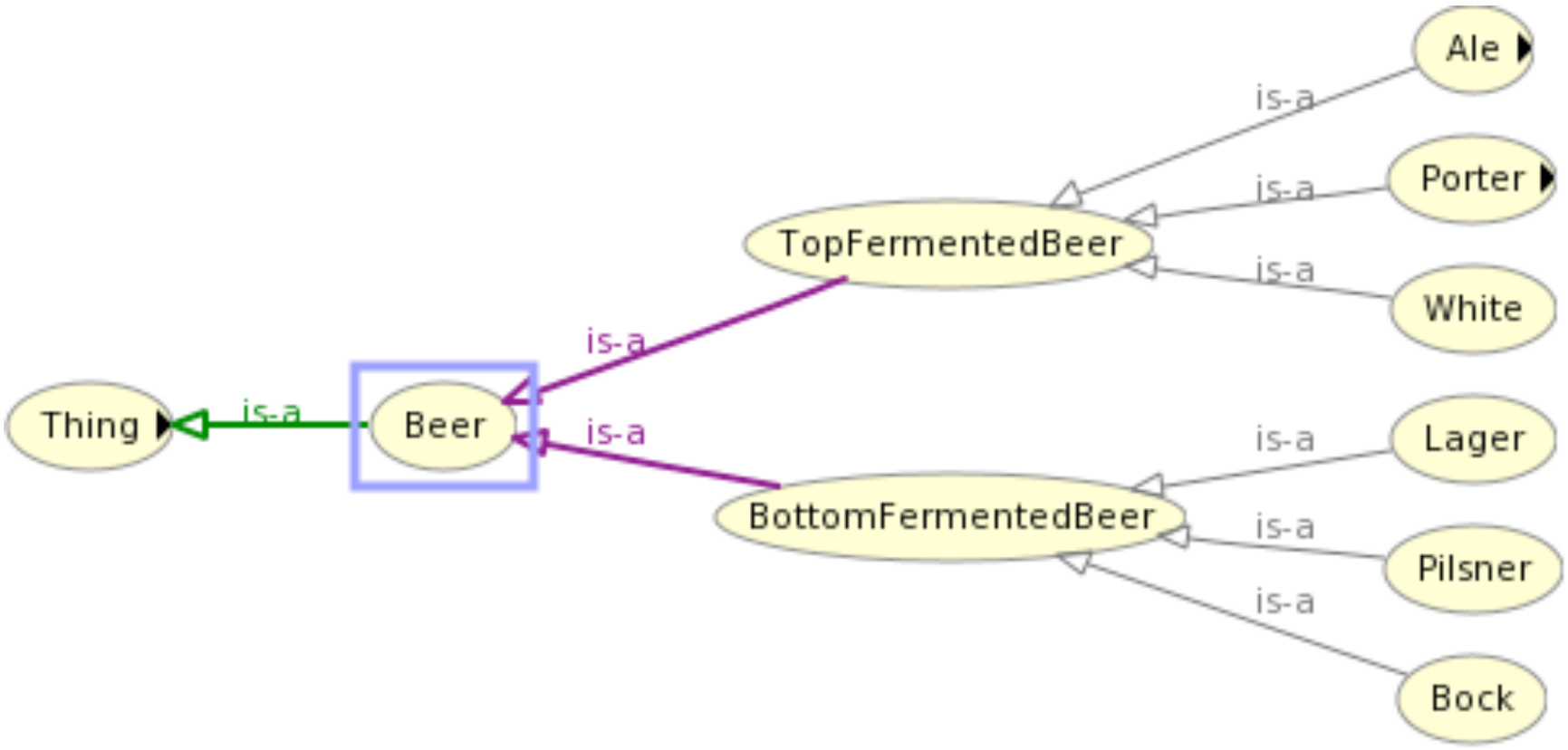
Ale
Porter
White
is-a
is-a
is-a
TopFermentedBeer
is-a
Thing
is-a
Beer
is-a
Lager
Pilsner
Bock
is-a
is-a
is-a
BottomFermentedBeer

Ontologies are described in OWL

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OWL is modeled in RDF

RDF is machine readable

RDF is machine readable

So ontologies can understood by machines

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Even if that's just to assert that everything is a Thing

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Semantic Web

Semantic Web

Web

The Web is simply the biggest, most successful, most useable, distributed systems architecture ever.

“The Web is simply the biggest, most successful, most useable, distributed systems architecture ever.”

David De Roure

Linking

Linking

Scale

The mechanism for

Linking

enables the Web to

Scale

Do people scale?

Do people scale?

Do people scale to the size of the Web?

machine readable
meaning

Why does the Web scale?

REST

A Resource Oriented Architecture

A Resource Oriented Architecture

with a simple protocol to return representations of those resources

HTTP returns those representations

HTTP returns those representations

When it talks to us, it returns HTML

The resources are simply addressable objects

Resource

What is RDF?

Description Framework

About those addressable Things...

We address them using URIs

http://www.bbc.co.uk/music/artists/668fd73c-bf54-4310-a139-3055517f05311

http://www.bbc.co.uk/music/artists/668fd73c-bf54-4310-a139-3055517f05311

This is the Willie Nelson.

http://www.bbc.co.uk/music/artists/668fd73c-bf54-4310-a139-3055517f05311

This is the Willie Nelson.

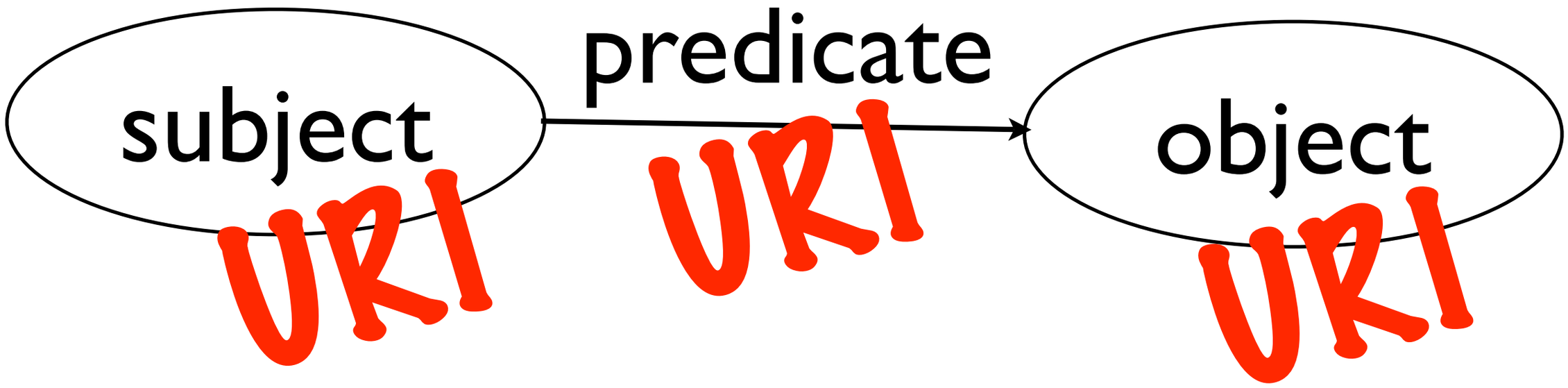
Honest.

Everything in RDF is a resource

Everything in RDF is a URI

not quite

Yes, that's it.



Why is this important to second generation digital libraries?

Principally libraries are about sharing

Principally libraries are about sharing Things.

Do people scale?

Do people scale?

Do people scale to the size of the Web?

machine readable
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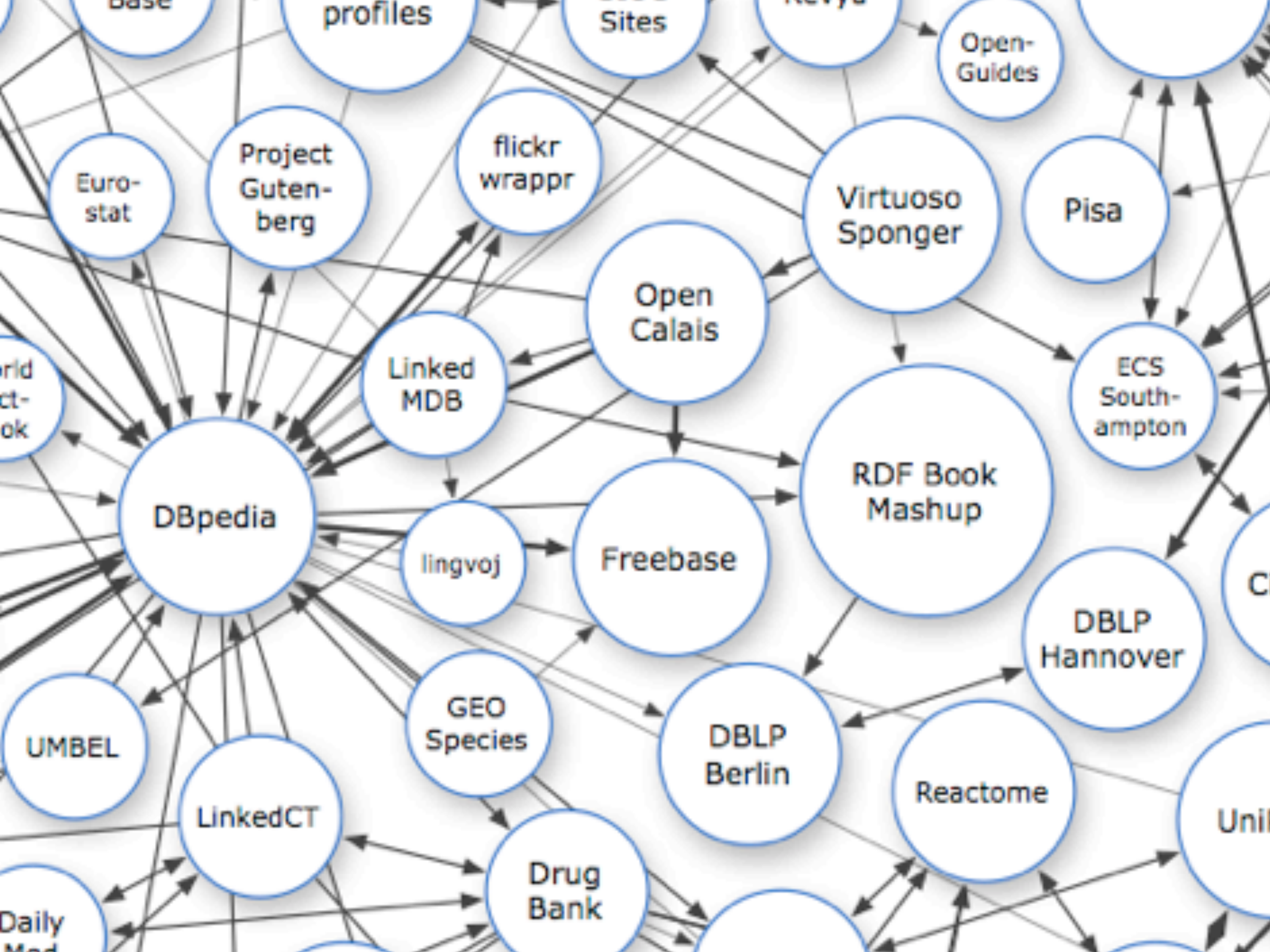
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Pisa
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Calais
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MDB
ECS
South-
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RDF Book
Mashup
DBpedia
lingvoj
Freebase
DBLP
Hannover
UMBEL
GEO
Species
DBLP
Berlin
Reactome
LinkedCT
Drug
Bank

Demo

Questions?