Open Linked Data and its potential within the picture library industry

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Semantic Web

A collaborative movement led by the World Wide Consortium (W3C) that promotes common formats for data on the World Wide Web.
Semantic Web – Main Ideas

- Compatibility
- Machine-readable data
- Aims for a “web of data”
- Collaborative
- Sharing data
- Common data formats

Open Linked Data

What is it?

What does it mean?
Data about what?

Entities.

Entities data

Entities are unique, and are uniquely identified within a system by a unique URI.

Steve Foley the linebacker or the drummer?
http://dbpedia.org/page/Steve_Foley_%28drummer%29
http://dbpedia.org/page/Steve_Foley_%28linebacker%29

Entity data is machine understandable, due to its common data structure.
What Does Linked Data Look Like?

**Common data structure, a “graph model”**

Graphs are based on “triples”

Entity 1 *has a relationship to* Entity 2

or

**Subject – Predicate – Object**
Triples About Film Stars

Angelina Jolie has occupation Actor
Angelina Jolie has partner Brad Pitt
Angelina Jolie starred in Mr. & Mrs. Smith
Brad Pitt has occupation Actor
Brad Pitt starred in Mr. & Mrs. Smith
Brad Pitt starred in Inglourious Basterds
Quentin Tarentino directed Inglourious Basterds

Graph of Film Stars

Quentin Tarentino
Director of

Mr. and Mrs. Smith
Starred in

Angelina Jolie
Occupation

Brad Pitt
Actor

Inglourious Basterds
Starred in
Advantages of a graph model

Information grows organically

The data all connects up

Easy to expand the model

Open

Designed to share

Much of it is free
Summary of Open Linked Data

- Unambiguous entities
- Machine understandable
- Graph model / Schema-less
- Lots of facts/information about entities
- Often dynamic, updated frequently, based on collective intelligence
- Often available for free

Potential of Open Linked Data for finding images

- Browse
- Dynamic Semantic Publishing
- Semantic Search
Browse

Navigate through connections between entities to find pictures

Dynamic Semantic Publishing

Automated publishing of content to web pages

Metadata-driven

Template-based

Non-curated

Based on an underlying ontology – relationships between entities