

Distributed Software Development

RDF

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- RDF stands for *Resource Description Framework*
- Provides a way to describe properties that belong to objects.
- Much like a relational database.
- Can be serialized as XML, but it's easiest not to get hung up on the XML syntax initially.
 - Built to be created and consumed by machines.

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10-1: Uses of RDF

- RDF is a very popular framework for describing resources on the Web.
 - RSS
 - Mozilla
 - Creative Commons
 - FOAF
 - Tucana Knowledge Store
- All of these applications need a more powerful way of representing information than XML provides by itself.

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10-2: RDF's data model

- Recall that XML produces a tree-structured data model.
- This can make it hard to represent some sorts of knowledge.
- How to denote that two elements share a sub-element?

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10-3: Representation in XML

- For example:

- From a set of RDF triples, we can construct an RDF graph.
- Subject and value are nodes
 - Nodes can be
 - URIs - a generalized form of a URL
 - blank nodes - mostly useful as placeholders
 - literals - strings, values, etc.
 - Properties are edges.

- An RDF graph can be serialized as XML.
- Elements are subjects.
- Relations are subelement tags.
- Objects are subelements.
- The ability to name objects with URIs separates this from XML.

10-7: Example: FOAF