The Semantic Web

- Today: Web of Links
- Future: Web of Meaning

The Web

- Distributed
- Dynamic
- Massive
- Open World

Document Languages

- HTML
- XML
  - tags (start-tag, end-tag), element, attribute
  - DTD (document type definition)
- RDF

The SHOE Language

- Represented in either HTML or XML

SHOE Ontologies

- SHOE uses ontologies to define the valid elements that may be used in describing entities.

  ```
  <ONTOLOGY ID=id VERSION=version>
   .. ..  ..
  <\ONTOLOGY>
  ```

- Category Definitions

  ```
  <DEF-CATEGORY>
  ```

- Relational Definitions

  ```
  <DEF-RELATION> ... <\DEF-RELATION>
  ```

SHOE Ontology (cont)

- `<USE-ONTOLOGY>`
- `<DEF-RENAME>`

SHOE Inference Rules

- `<DEF-INFERENCE> </DEF-INFERENCE>`
- Antecedents `<INF-IF> </INF-IF>`
- Consequents `<INF-THEN> </INF-THEN>`

SHOE Instances

- `<INSTANCE> </INSTANCE>`
- `<USE-ONTOLOGY>`
- `<CATEGORY NAME = y FOR=x>`
- `<RELATION NAME = foo>`