

Building the Semantic Web

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The MITRE Technology Program logo features a stylized graphic of stacked, colorful blocks (yellow, orange, and blue) on the left, followed by the text "MITRE Technology Program" in a white, sans-serif font.

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Problem

- **The World Wide Web was originally aimed at providing information to people, not other software.**
- **Web resources don't have descriptions of their meanings or capabilities that programs can understand.**
- **Result: Software can't provide relevant information or services with precision, reflecting user intent and needs.**

Background

Example scenario:
Will Jim find Jane?

I need an expert
in XML to give
a seminar!



```
<HTML>
<TITLE>Jane Doe's
      Web Page</TITLE>
<BODY>
<P>I teach the Extensible Markup
      Language at State U</P>
<P>My email is jd@state.edu</P>
</HTML>
```



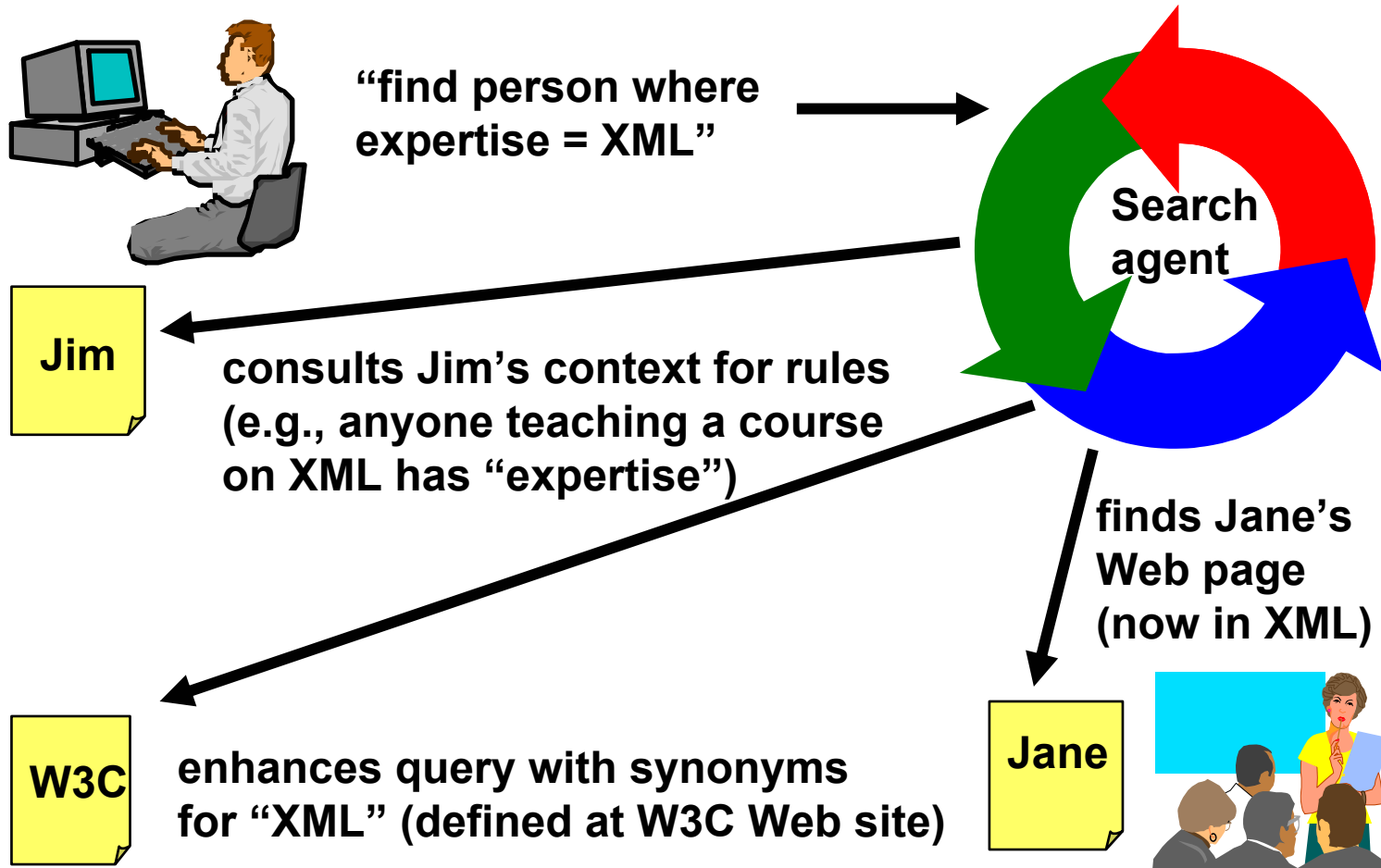
Objective

- Provide technical foundations for a Semantic Web, in which Web resources have software-understandable descriptions of their meanings or capabilities
 - Supports matching resources to requests in spite of different vocabularies or contextual assumptions
- A key area of current Web technology development, affecting numerous DOD and MITRE programs, eBusiness and other communities

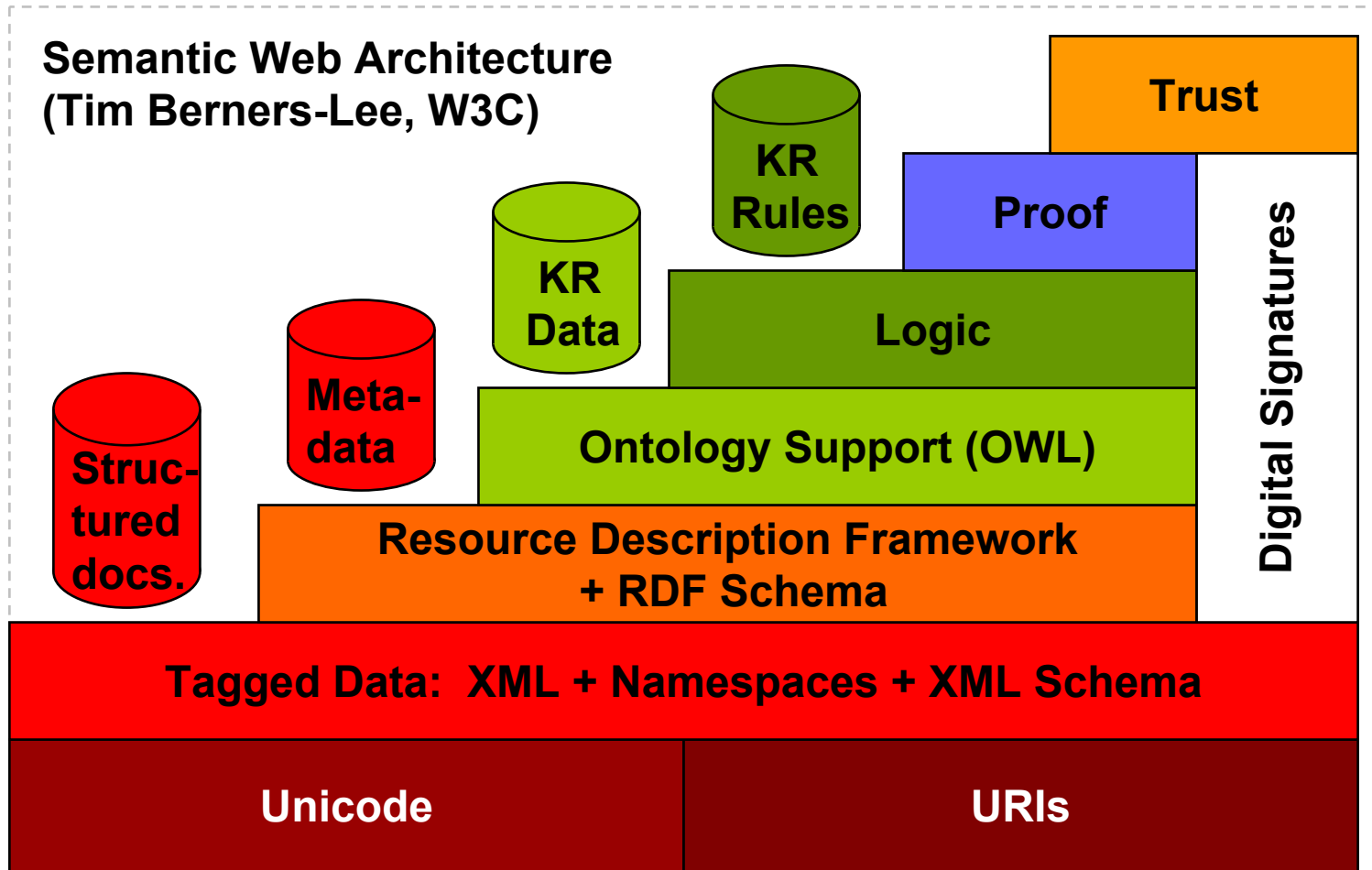
Activities

- **World Wide Web Consortium Semantic Web Activity, RDF Core Working Group**
- **Working with MIT researchers on context and rule concepts, context mediation prototype, disaster relief scenario**
- **Working with DARPA Agent Markup Language (DAML) program researchers on model, language, and processing concepts**

Highlight



Highlight



Impacts

- **Developing foundations of Semantic Web and related technology in W3C technical groups (RDF Core, Semantic Web) with influence on vendor / customer communities**
- **input into MITRE activities on Joint Battlespace Infosphere, data integration, GCSS, other programs**
- **influence on academic research directions via MIT collaboration**
- **spreading the word on Semantic Web technologies to MITRE and external groups**

Future Plans

