RDF123: Spreadsheets to RDF

• In 2007 we developed the RDF123 Java app to translate spreadsheets into RDF graphs

• Translation is driven by a map that permits
  – a rich schema to apply to each row, rather than just creating a single instance of a RDF/OWL class.
  – Conditionals allow different rows to use different schemata

• See http://rdf123.umbc.edu/ for more info

• See CSV on the Web: A Primer for the W3C’s work on developing a standard
RDF123 Example

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Office</th>
<th>Faculty</th>
<th>Coffee Due</th>
<th>Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Finin</td>
<td><a href="mailto:finin@umbc.edu">finin@umbc.edu</a></td>
<td>ITE329</td>
<td>Yes</td>
<td>$10</td>
<td></td>
</tr>
<tr>
<td>Lushan Han</td>
<td><a href="mailto:lushan@umbc.edu">lushan@umbc.edu</a></td>
<td>ITE377</td>
<td>No</td>
<td></td>
<td>Tim Finin</td>
</tr>
<tr>
<td>Wenjia Li</td>
<td><a href="mailto:wenjia@umbc.edu">wenjia@umbc.edu</a></td>
<td>ITE377</td>
<td>No</td>
<td></td>
<td>Anupam Joshi</td>
</tr>
</tbody>
</table>
RDF123 graph serialized as RDF/XML

```xml
<rdf:RDF
    xmlns:foaf="http://xmlns.com/foaf/0.1/"
    xmlns:foo="http://www.foo.org/
    xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
    <foo:Club rdf:about="#UMBC CS Friday Afternoon Research Club"/>
    <rdf:Description rdf:about="Ex:$1">
        <rdf:type rdf:resource="Ex:foo+@If($4='Yes';'Professor';'Student')"/>
        <foaf:mbox>Ex:mailto:+'+$2</foaf:mbox>
        <foaf:name>Ex:$1</foaf:name>
        <foo:officeNumber>Ex:$3</foo:officeNumber>
        <foo:hasCoffeeDue>Ex:$5~decimal</foo:hasCoffeeDue>
        <foo:advisor>
            <foo:Professor rdf:about="Ex:$6"/>
        </foo:advisor>
        <foo:isMemberOf rdf:resource="#UMBC CS Friday Afternoon Research Club"/>
    </rdf:Description>
</rdf:RDF>
```