Linked Data Connections in App Inventor

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Linked Data Evolution

2007 → now
Why use Linked Data?

- Enormous wealth of open data

- Uniform Resource Identifiers (URIs) enable interconnections between datasets, unlike data in traditional databases
How to work with linked data?

• To consume:
  – Query using SPARQL

• To produce:
  – Create “triples” and/or “graph” structures using Resource Description Framework (RDF)
Our goals

• Introduce linked data to App Inventor

• Hide the complexity of RDF, SPARQL when developing mobile apps
The App Inventor Components

Semantic Web

- SemanticForm
- SemanticWeb
- SemanticWebListPicker
SemanticForm

• A new app inventor layout
• Creates an RDF model based the contents in the form
• Can create more complex structures with nested forms
• The form can mint new URIs using their contents
SemanticWeb

• Provides methods for:
  – Reading RDF
  – Storing and manipulating RDF on the device
  – Writing out an RDF model to a triple store
SemanticWebListPicker

- Extends the List Picker component
- Auto-populates contents from a triple store
“MatchApp” Demo

• A mobile application that can be easily built using disaster scenarios
• Donors can input information about donations
• People in the disaster areas can search for those resources and request them via Twitter
Check us out!

Source Code:

https://github.com/mit-dig/appinventor-sources

DIY Mobile App Development for Disaster Management

http://dig.csail.mit.edu/2013/QCRI-DIG-project
Thank You!