OpenSocial + Linked Data in Research Networking: UCSF Profiles
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“it’s basically like LinkedIn for biomedical researchers”
UCSF Profiles

• Contains deep researcher data
• Based on Profiles open source code from Harvard, bravely launched by UCSF in 2009
• IIS/.NET + MS SQL Server + Tomcat/Java
• UCSF adds OpenSocial (via Shindig) to an “unofficial” copy of the source
• OpenSocial version adopted by Wake Forest and Baylor
OpenSocial Challenges for Profiles and Research Networking

• OpenSocial data model not a good match for researchers (both a PR and technical challenge)

• With only two installations, we already experienced divergent extensions! (Wake Forest and UCSF have different methods for accessing researcher keywords)

• How does the OpenSocial standard compare/compete with the Linked Data standard?
Research Networking and Linked Data

- Linked Open Data (LOD) standard supported by many publicly funded institutions
- VIVO, a “competitive” product based on RDF and LOD is awarded a large grant
- LOD and VIVO Ontology (extension of FOAF) becomes a recommended standard for research networking
- Profiles adopts LOD, UCSF adds OpenSocial to the VIVO product
Methods for Integrating Linked Data into OpenSocial

• Needed to express semantic data in JSON
  – MIT Simile
  – Epimorphics
  – JSON-LD

• Extended OSAPI in Shindig 2.0.2
  – osapi.rdf.getViewer(…)
  – osapi.rdf.getOwner(…)
  – osapi.rdf.getRDF(…)

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Advantages of Linked Data and JSON-LD

• Decouples data model from the OpenSocial API
  – Current integration is ontology agnostic

• Same API works for people/friends/co-authors/circles/publications/etc.

• Metadata is included with the data

• JSON supported by every programming language in the known universe*

• Because every object has a URI, easy to deserialize into a rich object graph
Next Steps

- OpenSocial + Linked Data now an official part of Profiles with 2.0 release (in QA)
  - https://github.com/ProfilesRNS
- Working with Research Networking community to adopt JSON-LD as a supported serialization format for Linked Data
- Add JSON-LD to the VIVO Research Networking product: http://vivoweb.org/
- Express OpenSocial “appdata” as Linked Data
Questions? Let us know!

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