Interim Technical Director
What do we mean by “Identity?”
Automated-Tools

Self-Asserted Identity

Organisationally-Validated Identity

Socially-Validated Identity

Disambiguated Identity
Phase 1

Self-Asserted Identity

Phase 2

Organisationally-Validated Identity

Socially-Validated Identity

1.0

1.x
Socially-Validated Identity
Organisationally-Validated Identity
Phase 2

Self-Asserted Identity
Phase 1

Launch

Tuesday, 13 December 11
If you are interested in Phase 2....

“Disambiguation without de-duplication: Modelling authority and trust in the ORCID system”

http://www.orcid.org/node/615
But this is about phase 1.0...

We are here
Origins Phase 1.0...

- March-July, 2010: Sandbox and Alpha Build
- August, 2010: TR Code offered for ORCID effort
- September, 2010: ORCID Audits TR Code
- November, 2010: ORCID Adopts 10 Principles
- ORCID Explores Tech Options / Negotiates Terms
Collaboration with VIVO

On behalf of ORCID, Gudmundur Thorisson, University of Leicester, led a grant from VIVO to work on explore how ORCID and VIVO can interact in the scholarly ecosystem.

• Broad aim = technology evaluation for ORCID
  – Get hands-on experience w/ VIVO platform
  – Can/should ORCID reuse VIVO technology? Lessons learned? Etc.
• Implementation objectives: extend VIVO system to enable
  – Searching for and adding publications from external bibliographic system
  – Identification & exchange of profile information with external system
• Other objectives
  – Investigate ontological approach (e.g. what can ORCID reuse/repurpose/learn? )
  – Engage with VIVO community on technical level and build relationships
VIVO / ORCID Implementation

- **Objective 1:** enabling VIVO user to interactivity search for & retrieve records from external bibliographic system and add to their profile
  - JRuby apps running alongside VIVO servlets inside Tomcat
    - *Very* simple Sinatra app <-- 2x RESTful web service endpoints
    - Wrapper API around CrossRef’s SIGG metadata search
  - <200 lines of client-side jQuery JavaScript
  - Interactive UI bits
  - Process biblio-RDF retrieved from DOI metadata service
  - Modify VIVO UI forms (JSPs) + deal with biblio-RDF
  - More useful reference listing in profile + other UI tweaks using Freemarker

- **Objective 2:** enabling VIVO user to identify him/herself to & exchange profile data with external service
  - Embedded Rails app - runs alongside VIVO servlets
    - Turns VIVO into OAuth provider <-- works with existing VIVO authentication
    - Hooks into VIVO via JRuby-Rack servlet integration (e.g. is user logged in?)
    - Reuses existing Rails components, incl. oauth-plugin for most of the OAuth API
  - Standalone Rails app
    - Demo OAuth consumer app <-- mockup manuscript tracking system
    - Reuses existing Rails components, incl. user registration/login/etc.
VIVO / ORCID Sourcecode

Code: https://github.com/gthorisson/vivo-orcidextensions
Sandbox: http://vivo.crossref.org
ORCID and Thomson Reuters have reached an agreement that enables ORCID to start building the ORCID service based on ResearcherID code. Thomson Reuters has provided ORCID with a perpetual license and royalty free use of ResearcherID code and intellectual property, giving ORCID the critical technology to create its system. The agreement also allows ORCID to build upon the ResearcherID code base under an open source model, speeding the organization’s progress towards a registry of unique contributor identifiers and a disambiguation service.
**Development Approach**

**Alpha**
- Completed Spring 2010
- Self-claim oriented
- Limited light integration with a few participant services
- Demonstration capabilities transitioning to ORCID source code by end of year

**Phase 1**
- Development underway
- Development by Semantico under contract with ORCID
- Development led by Geoff Bilder
- Will provide core for future production service
- Will focus on currently active researchers

**Phase 1.x and 2**
- Development 2012+
- Will address assertions by wide group of third parties
- Will extend capabilities for alternate roles and other types of contributions
- Will provide mechanisms for automatic disambiguation of third party donated records
Phase 1 Features

Core ResearcherID.com functionality plus:

• Institutional seeding of profiles (i.e. batch upload, alerting)
• Delegated management of profiles
• Profile exchange into grant/manuscript submission systems
• Fine-grained control of privacy settings at the claim level
  – public="share with anybody"
  – protected="share with parties authorized via OAuth"
  – private="do not share"
• ORCID identifier resolution (both via GUI and REST API)
• Metadata search (both GUI and REST API)
Development Progress: Completed

Phase 1 development is underway. Key developments:

• Early June - Thomson Reuters has provided ORCID with a perpetual license and royalty free use of ResearcherID technology
• June – ResearcherID code delivered and ORCID github repository created
• July – Semantico selected to do Phase 1 development
• Early August – Semantico begins code “cleansing”
• Mid August – Thomson Reuters systems dependencies stubbed out, code compiles and passes 800+ code tests suite
• Early September – Trademark free cleansed code delivered to Thomson Reuters for validation and acceptance prior to open source licensing by ORCID, Inc.
• Early September – Semantico provides detailed code assessment and work plan to Geoff Bilder
Semantico Team

Declan Newman, Will Simpson and Liam Sheerin posing in front of ORCID code system
Semantico Code Assessment

Semantico used the code cleansing activity to validate previous due diligence, familiarize developers with the code, and confirm development plan assumptions.

• Created license audit
• Ported code to Maven / Jenkins automated build environment
• Substantiated code audit conducted September 13, 2010
• Assessment indicates that overall effort from original estimate remains the same
• Beyond planned replacements of bibliographic store, authentication, and services layers, Semantico has made the following detailed observations
  • Replacing bibliographic data store will be easier than anticipated using “vestigial” ResearcherID stand-alone database – provided with code
  • Reevaluated their original recommendation regarding move from iBatis to Hibernate
  • Will replace XML-RPC services with a Jersey-Based RESTful API
  • Will likely replace Struts with Spring MVC
Development Phase 1: Sprints

Sprint 1: Query API
*ETA ~ 14-10-2011*
Delivery mock query API that third parties can use to start integration work with manuscript/grant tracking, evaluation systems. Deliver deployable WAR.

Sprint 2: Deposit API
*ETA ~ 21-10-2011*
Delivery mock deposit API that third parties can use to start integration work with manuscript/grant tracking, evaluation systems. Deliver deployable WAR.

Sprint 3: Deposit API
*ETA ~ 10-11-2011*
Hook-up front-end to API backend.

Sprint 4: Templating
*ETA ~ 18-11-2011*
Spring MVC/Security & FreeMarker integration.
Development Approach: OAuth

- API document also addresses OAuth integration with external sites
- OAuth development will leverage work done by Gudmundur Thorisson on VIVO-ORCID mini-grant
- ORCID will provide a stand-alone server codeset with sample responses for integration development of community partner sites.
ORCID Phase 1 Query API Specification

http://goo.gl/ctWlR
Query API supports the following query types:

<table>
<thead>
<tr>
<th>Name</th>
<th>Key</th>
<th>Returned</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio</td>
<td>ORCID</td>
<td>Profile metadata</td>
<td>Given a party, give me name and affiliation data.</td>
</tr>
<tr>
<td>Works</td>
<td>ORCID</td>
<td>List of work metadata</td>
<td>Given a party, tell me what works they have contributed to.</td>
</tr>
<tr>
<td>Full</td>
<td>ORCID</td>
<td>Profile metadata, work metadata and ORCIDs</td>
<td>Given a party, tell me what works they have contributed to, name and affiliation data.</td>
</tr>
<tr>
<td>Work</td>
<td>Work identifiers (e.g. DOIs)</td>
<td>ORCIDs &amp; associated metadata</td>
<td>Given a work, tell me what parties are responsible for it.</td>
</tr>
<tr>
<td>Search</td>
<td>ORCID, Work identifiers, or profile metadata</td>
<td>ORCIDs &amp; associated metadata</td>
<td>Given whatever metadata I have, give me a ranked list of potential parties identified by that metadata.</td>
</tr>
</tbody>
</table>
November 2nd, 2011

The ORCID Phase 1 Query API Mockup

https://github.com/ORCID
ORCID Deposit/Update API

**Table of Contents**
- API Use Cases
- User grants read access to all details
- User grants read access to biographical details
- User grants read access to works only
- User grants update access to biographical details
- User grant permission to add a new work
- User grants permission to add a new work to all works
- User grant permission to add a new work to all works
- User grants permission to add a new work to all works
- User grants permission to add a new work to all works

**Context:**
- Motivation
- User stories
- Use cases
- Technical details
- XML message structure
- Versioning and scope attributes
- Data types in XML
- Validation
- Details
- Document details
- Schema documentation
- Example results
- Reference

**User grants update access to biographical details**

This call should be used when the client system wants to update the contributor's biographical details.

- OAuth scope: orcid-bio/update
- OAuth time frame: single update, within 5 minutes
- HTTP Method: PUT
- URL: /ORCID/api/orcid-bio
- Request body: 
  ```
  {  
    "orcid-message": {  
      "OrUpdate": true,  
      "any": {  
        "biographical": true  
      }  
    }  
  }
  ```
- Success HTTP code: 204 OK
- Success result: `orcid-message` returned, containing just `orcid-message` details in the `orcid-bio`, even if the researcher or contributor marked them in ORCID as protected.

**User grants permission to add a new work**

This call is used when the client system wants to add a new work to the contributor's list of works.

The client system should ask for confirmation from the researcher or contributor before adding a work, to avoid adding duplicate works to the list. The process should include showing the current list of works for the user to review.

So, the scope `/orcid-work/create` is inherited from `/orcid-work/read` and `/orcid-work/update`.

- OAuth scope: orcid-work/create
- OAuth time frame: single create, within 5 minutes
- HTTP Method: POST
- URL: /ORCID/api/orcid-work
- Request body: 
  ```
  {  
    "orcid-message": {  
      "OrCreate": true,  
      "any": {  
        "work": true  
      }  
    }  
  }
  ```
- Success HTTP code: 201 Created

**XML message structure**

The structure of ORCID API response reflects the use cases, and the security model. In other words, a request for authorization to read or update a set of fields corresponds to a single XML element in the response.

The XML elements that correspond to OAuth scopes are ‘Tier class citizens’ in the ORCID XML.

<table>
<thead>
<tr>
<th>XML element</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>orcid-#</td>
<td>The Open Researcher &amp; Contributor Identifier</td>
<td>Inheritable</td>
</tr>
<tr>
<td>orcid-history</td>
<td>The history of the record within ORCID</td>
<td>This is maintained internally by ORCID as would never be updated directly by external client systems. It is a basic log of what the profile was created, etc.</td>
</tr>
<tr>
<td>orcid-bio</td>
<td>The biographical details of the researcher or contributor</td>
<td>The researcher or contributor can grant update access to the whole of their biographical details.</td>
</tr>
<tr>
<td>contact-details</td>
<td>The contact details of the researcher or contributor</td>
<td>The researcher or contributor must have the option to make their biographical details available to the public API, without exposing their personal contact details.</td>
</tr>
<tr>
<td>external-identifier</td>
<td>Identifiers from systems other than ORCID</td>
<td>We should allow for the possibility of co-scratching of identifiers from other systems. In this case the researcher or contributor would only want to allow an external identifier to be added, without exposing access to any other data.</td>
</tr>
</tbody>
</table>

**orcid-work**

The works by the researcher or contributor can choose to grant access for adding a new work – this is analogous to posting the new work to their Twitter time-line. Also, the researcher or contributor can grant the client system full control over their entire list of works.
Full Read/Write API Mockup On Github Soon!

https://github.com/ORCID
ORCID ID Syntax Finalised

Opaque, numeric, non-sequential, with a ISO/IEC 7064:2003, MOD 11-2 check-sum and expressed as HTTP URI.

http://orcid.org/0137-1963-7688-2319

http://orcid.org/0243-4126-4084-6509

http://orcid.org/1792-3336-9172-961X

“Structure of the ORCID Identifier”  http://goo.gl/zAF7I
Gratuitous Screenshots
ORCID Phase 1 in Development

Running on “localhost”

ORCID is a global, multi-disciplinary scholarly research community. With a unique identifier assigned to each author in ORCID, you can eliminate author misidentification and view an author’s citation metrics instantly. Search the registry to find collaborators, review publication lists and explore how research is used around the world.

Learn More: Register | FAQ

Search ORCID

Search for researchers in our database using one or more of these fields:
[ more options | tips ]

Last / Family Name: __________________________ Example: Smith
First / Given Name: __________________________ Example: J or James

Search Clear
Notice:

Your ORCID invitation is on its way. Please check your inbox.

Thank you for your interest in ORCID.
### Personal Information

**First / Given Name:** Joisah

**Last / Family Name:** Carberry

**Middle Initials:** S

**ORCID ID:** A-1001-2011

**Public (Master):** This is your unique identification.

**Public**

**Other Names Used by You:**
- J. Carberry
- J. S. Carberry
- jcarberry

**URL:** http://www.orcid.org/orcid-web/A-1001-2011

**Public:**

**URL:** The URL can be used to link directly to your profile page.
The information below was provided by the registered user. Use this information to verify that the caller is actually this registered user. Then verify their e-mail address is correct:
- You can e-mail the user their password by clicking the "E-mail Password" button.
- If the user's e-mail address has changed, then edit the e-mail address and click the "Save E-mail and Send Password" button.

**Public (Master)**

<table>
<thead>
<tr>
<th>Public</th>
<th>Last / Family Name:</th>
<th>Carberry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>First / Given Name:</td>
<td>Joisah</td>
</tr>
<tr>
<td>Public</td>
<td>Middle Initials:</td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>ORCID:</td>
<td>A-1001-2011</td>
</tr>
</tbody>
</table>

**Public**

- **URL:** http://www.orcid.org/orcid/A-1001-2011
- **Email Address:**

**Private**

- **Email Address:**

**Registered Users Only**

- **E-mail Password**
- **Save E-mail and Send Password**

**Public (Master):** Clear the "Public (Master)" check box to make your information private. Only you, when logged in, will be able to view your information.

**Name:** Your name will be searched and displayed on your profile page if made public.

**ORCID:** This is your unique identification.

**URL:** The URL can be used to link directly to your profile page.

**Email address:** Enter your Email address so orcid.org can contact you. You can choose to make your Email public to all visitors to your page, or just to registered researchers.
Thank You

gbilder@crossref.org
Disambiguation without de-duplication: Modelling authority and trust in the ORCID system
http://www.orcid.org/node/615

The ORCID Phase 1 Query API Specification
http://goo.gl/ctWIR

The ORCID Phase 1 Query API Mockup
https://github.com/ORCID

The ORCID Phase 1 Deposit/Write API Specification
http://goo.gl/MDob1

Structure of the ORCID Identifier
http://goo.gl/zAF71