

# Building the CC Network

Nathan R. Yergler (CC)

# CC Network



# Overview

- Launched October 2008
- A place creators to collect work references
- A platform for digital copyright registry exploration
- Free Software: AGPL 3, available from [code.creativecommons.org](http://code.creativecommons.org)



# Features

- Personalized profile page
- Open ID
- Simple Work Registry



# Personal Profile Page



Join

Login

Help

# Nathan Y.

Active



Nathan Yergler

<http://yergler.net/>

SF.CA.US

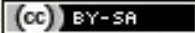
## My CC Story

I've been working with Creative Commons for over four years, first as a software engineer, now as CTO. Problems with the network? Email [issues@creativecommons.org](mailto:issues@creativecommons.org).

## Works I Have Licensed


### The Law of Averages

Includes all works beginning with this URL.


10/07/2008 — 

### yergler.net

Includes all works beginning with this URL.

10/07/2008 — 

### Radical Decoupling

10/01/2008 — 

[All...](#)

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# “Confirmed” Name

- Taken from PayPal Transaction
- Licensing claims are about claiming ownership
- Legal “tools” can deal with false claims
  - But depend on knowing who made the claim
- Initial step towards adding trust in claimants identity





# “Confirmed” Name – Issues

- PayPal is less than perfect with names
  - Particularly if you don't have an account
- What if someone publishes under a pseudonym?
- Changes their name?
- We need a system that supports multiple levels of verification



# OpenID



# Open ID

- Decentralized way to present credentials
- Designed to help fight “password fatigue”
- Identify yourself using a URL
- But...



# Open ID: Issues

- You *must* trust your provider
- Vulnerable to DNS attacks when not conducted over SSL
- Possible phishing vulnerabilities
- Your provider knows lots of information about where you visit and how often



# Mitigating Risk

- We only serve requests over SSL
  - Non-SSL requests are currently redirected
- We commit to retaining minimal logging information
  - No 3<sup>rd</sup> party analytics
  - Minimal log retention
  - No sharing of data unless required by subpoena
- Initial support for Verisign Seatbelt



# Verisign Seatbelt

The screenshot shows a Mozilla Firefox browser window titled "Rails OpenID Example Relying Party - Mozilla Firefox". The address bar contains the URL "http://openidenabled.com/ruby-openid/trunk/exampl". The page content includes a header "Rails OpenID Example Relying Party" and a form with the label "Identifier:" and several checkboxes: "Use immed", "Request re", "Request ph", and "Force the t". A white notification box with a red checkmark icon is overlaid on the page, containing the text: "This web page supports OpenID Authentication. You're currently not signed in to your OpenID Provider. Would you like to sign in now?". At the bottom of the notification box are two buttons: "YES" and "NO". The browser's status bar at the bottom shows "Done", a network icon, the name "nyergler", a bug icon, a Creative Commons icon, and the text "logged out".



# Verisign Seatbelt

Login to your OpenID - CC Network - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://creativecommons.net/o/login/

CC Network

Join Login Help

## Login to your OpenID

Log in to **CC Network** to continue verifying your identity.

Username:

Password:

Done nyergler creativecommons.net login here



# Work Registry





# Work Registry Overview

- Allows users to “claim” a work
  - Identify works by URL
  - Allows wildcard claiming:  
`http://yergler.net/*`
  - User interface only supports trailing wildcards but uses POWDER-based vocabulary for rich flexibility
- Provides a badge to show CC Network membership



# Register Your Work



Work URL

Register all works beginning with this URL?

*Use this option to register large groups of works that you have created. Note this is only appropriate if you own **everything** starting with this URL.*

Title

License

*The URL of the license your work is available under.*

Save

Cancel

# Nathan Y.

Active



Nathan Yergler  
<http://yergler.net/>  
SF.CA.US

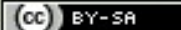
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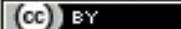
10/07/2008 — 

#### yergler.net

Includes all works beginning with this URL.

10/07/2008 — 

#### Radical Decoupling

10/01/2008 — 

[All...](#)

My Profile

Logout

Help

Edit Profile

OpenID Settings

# Nathan Y.

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### Place this badge on your website



```
<a xmlns:sioc="http://rdfs.org/sioc/ns
```

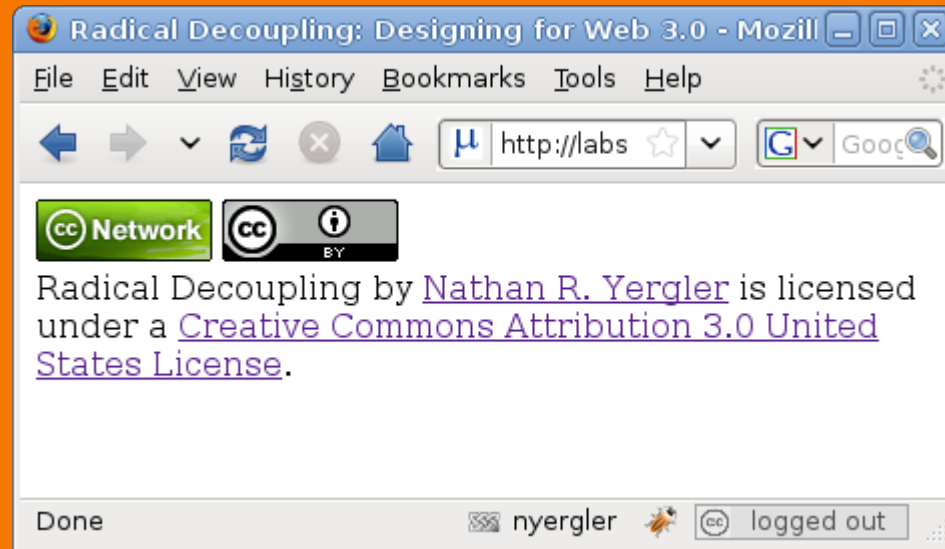
Use this HTML to embed the badge on your website.

### Your OpenID URL

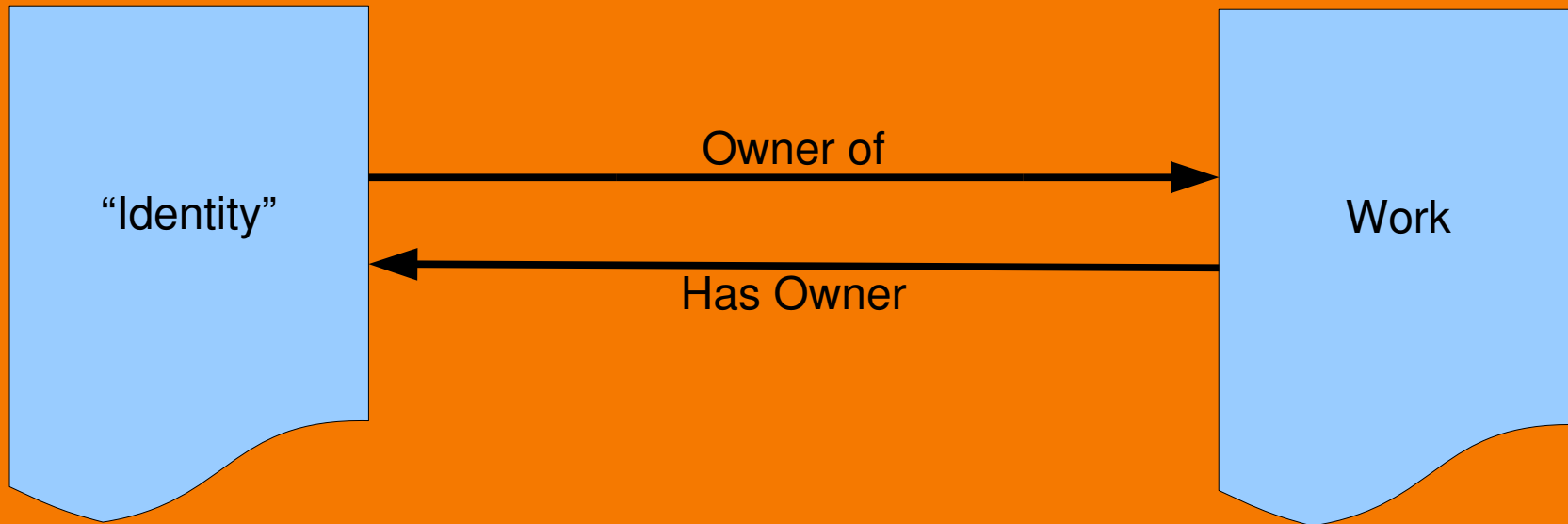
```
https://creativecommons.net/nathan
```

Use this URL to log into OpenID enabled sites.

# Network + License Badges



# Reciprocal Ownership Metadata







## Attribution 3.0 United States

### You are free:



**to Share** — to copy, distribute, display, and perform the work



**to Remix** — to make derivative works



### Under the following conditions:



**Attribution.** You must attribute this work to **Nathan R. Yergler** (with link).

**Attribute this work:**

```
<div xmlns:cc="http://creativecommons.org/ns#" ab
```



**Nathan Yergler** has registered **this work** at the **CC Network**.

The Deeds Are The Application





# Metadata Instead of Coupling

- Deeds request metadata from the referring page
  - Attribution Information
  - Ownership information
- Certain relationships are traversed
  - `rdf:seeAlso`
  - `sioc:memberOf`



# Binding Work and Profile

```
<https://creativecommons.net/nathan/>  
<http://rdfs.org/sioc/ns#owner_of>  
<http://labs.creativecommons.org/  
  ~nathan/info/decoupling.html> .
```

```
<http://labs.creativecommons.org/  
  ~nathan/info/decoupling.html>
```

```
<http://rdfs.org/sioc/ns#has_owner>  
<https://creativecommons.net/nathan/>  
.
```



# Creator Identification

```
<https://creativecommons.net/nathan/>
```

```
<http://rdfs.org/sioc/ns#name>
```

```
"Nathan Yergler"@en .
```

```
<https://creativecommons.net/nathan/>
```

```
<http://rdfs.org/sioc/ns#member_of>
```

```
<https://creativecommons.net/> .
```



# Registry Identification

```
<https://creativecommons.net/>
```

```
<http://purl.org/dc/terms/title>
```

```
"CC Network"@en .
```



# Service Identification

```
<https://creativecommons.net/>
```

```
<sioc_services#has_service>
```

```
<https://creativecommons.net/r/lookup  
> .
```

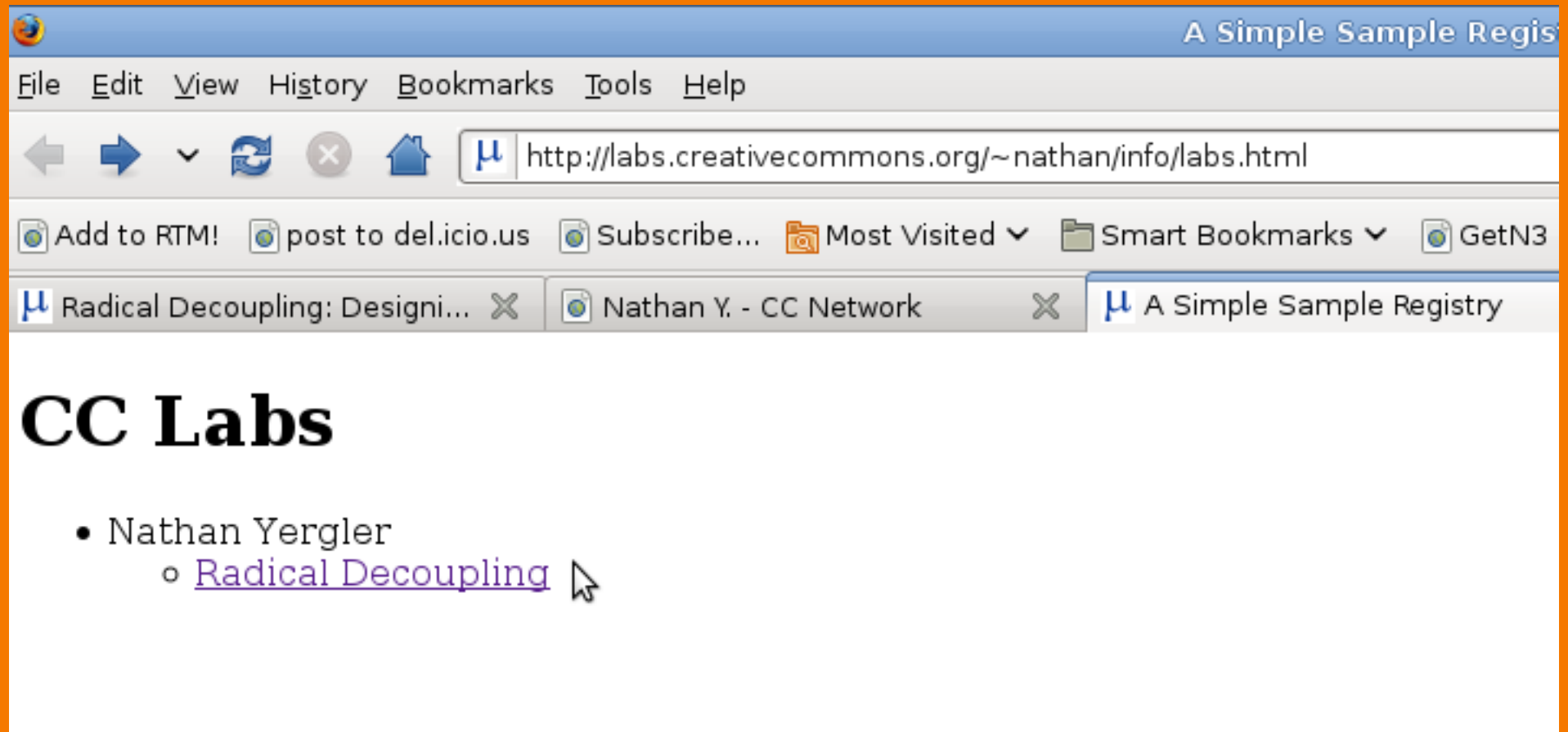
```
<https://creativecommons.net/r/lookup  
>
```

```
<http://rdfs.org/sioc/services#service  
_protocol>
```

```
<http://wiki.creativecommons.org/work
```

```
©-lookup> .
```

# Metadata Instead of Coupling



A screenshot of a web browser window. The title bar reads "A Simple Sample Registry". The address bar shows the URL "http://labs.creativecommons.org/~nathan/info/labs.html". The browser interface includes a menu bar (File, Edit, View, History, Bookmarks, Tools, Help), navigation buttons (back, forward, home, refresh), and a toolbar with social media and utility icons. The page content features the heading "CC Labs" and a bulleted list:

- Nathan Yergler
  - [Radical Decoupling](#)



# Metadata Instead of Coupling



**Attribution.** You must attribute this work to **Nathan R. Yergler** (with link).

**Attribute this work:**

```
<div xmlns:cc="http://creativecommons.org/ns#" ab
```



**Nathan Yergler** has registered **this work** at the **CC Lab**



# Future Developments

- Better/Different Identity Information
- “Feed” registration
- Follow creators (feeds, etc)
- Contact creators
- Continue to explore registry technology





# Nathan R. Yergler

Chief Technology Officer

Creative Commons

[nathan@creativecommons.org](mailto:nathan@creativecommons.org)

