PLAYING WITH THE
INDIEWEB
WHO AM I?

STEPHEN RUSHE
WORK AT SHOPKEEP
WHAT IS THE INDIEWEB?
THE INDIEWEB IS A COMMUNITY OF INDIVIDUAL PERSONAL WEBSITES, CONNECTED BY SIMPLE STANDARDS, BASED ON THE PRINCIPLES OF OWNING YOUR DOMAIN, USING IT AS YOUR PRIMARY IDENTITY, TO PUBLISH ON YOUR OWN SITE (OPTIONALLY SYNDICATE ELSEWHERE), AND OWN YOUR DATA.
WHAT IS THE INDIEWEB?

KEY PRINCIPLES

▸ Own your data
▸ Make tools for yourself
▸ Use what you make
▸ Document
▸ Open source
▸ Plurality
▸ Have fun
WHAT IS THE INDIEWEB?

WHY MIGHT I GO INDIE?
WHY MIGHT I GO INDIE?

SILOS

- Require you to create an account specific to the site
- Allow you to interact only with others with accounts on the site
- Allow you to post some form of content
- And typically have one or more of the following:
  - An access wall that restricts indexing some or all of the content
  - A restrictive terms of service
  - Claims some ownership or license to any content you create
  - Restricts your ability to import/export your content, comments etc.
WHY MIGHT I GO INDIE?

SITE DEATHS

- Geocities
- MySpace
- Google Wave
- Delicious
- Orkut
- Picasa
- Readability
- Google Reader
- Magnolia
- myOpenID
- Panoramio
- app.net
- Twitpic
- ...and many more.
WHY MIGHT I GO INDIE?

WHAT MIGHT I BE ABLE TO DO?

- Pretty much everything you currently can
- Identify yourself (with your own site)
- Publish your content
- Read other content
- Comment, Favourite, Like, Bookmark, Reply To
- Keep using your favourite silos (via syndication)
- Control your own data
FIRST STEPS
FIRST STEPS

1. OWN YOUR DOMAIN
Domain name:
deeden.co.uk

Data validation:
Nominet was able to match the registrant's name and address against a 3rd party data source on 23-Jan-2014

Registrar:
eNom LLC [Tag = ENOM]
URL: http://www.enom.com

Relevant dates:
Registered on: 24-Feb-2000
Expiry date: 24-Feb-2019
Last updated: 17-Feb-2018

Registration status:
Registered until expiry date.
2. SETUP YOUR SITE
Hello, my name is Stephen Rushe and I drink tea, love cats, and provide sarcasm-as-a-service. I’m also responsible for Cricsheet, a project to provide ball-by-ball data for cricket.

Why deeden?

My sister, when she was very young, had trouble saying “Stephen” and would say “Deeden”. I’ve taken to using it on occasion as a username, and it was useful when registering a domain name (in the distant past).

You can also find me elsewhere:

GitHub • Twitter
Hello, my name is Stephen Rushe and I drink tea, love cats, and provide sarcasm-as-a-service. I’m also responsible for Cricsheet, a project to provide ball-by-ball data for cricket.

Why deeden?

My sister, when she was very young, had trouble saying “Stephen” and would say “Deeden”. I’ve taken to using it on occasion as a username, and it was useful when registering a domain name (in the distant past).
A BRIEF DIVERSION INTO
MICROFORMATS 2
A BRIEF DIVERSION INTO...

MICROFORMATS 2

- Additions to HTML to easily markup...
  - blog posts
  - people
  - organizations
  - events
  - locations, and more...

- IndieWeb use microformats to publish a easily
  grabbable data

API GUIDE
REQUEST URL FORMAT:
http://www.com/<username>/<item ID>

SERVER WILL RETURN AN XML
DOCUMENT WHICH CONTAINS:
- THE REQUESTED DATA
- DOCUMENTATION DESCRIBING HOW
  THE DATA IS ORGANIZED SPATIALLY

API KEYS
To obtain API access, contact the
X.509-authenticated server and
request an ECDSA-TLS key...

IF YOU DO THINGS RIGHT, IT CAN TAKE
PEOPLE A WHILE TO REALIZE THAT YOUR
"API DOCUMENTATION" IS JUST INSTRUCTIONS
FOR HOW TO LOOK AT YOUR WEBSITE.
Hello, my name is <span class="p-name">Stephen Rushe</span> and I drink tea, love cats, and provide sarcasm-as-a-service. I’m also responsible for <a href="https://cricsheet.org/">Cricsheet</a>, a project to provide ball-by-ball data for cricket.

<h2>Why deeden?</h2>

My sister, when she was very young, had trouble saying “Stephen” and would say “Deeden”. I’ve taken to using it on occasion as a username, and it was useful when registering a domain name (in the distant past).

<h2>You can also find me elsewhere:</h2>

<ul>
  <li><a class="u-url" href="https://github.com/srushe" rel="me">GitHub</a></li>
  <li><a class="u-url" href="https://twitter.com/srushe" rel="me">Twitter</a></li>
  <li><a href="mailto:me@deeden.co.uk" rel="me">Twitter</a></li>
</ul>
FIRST STEPS

3. AND YOU'RE DONE
INDIEAUTH IS A FEDERATED LOGIN PROTOCOL FOR WEB SIGN-IN, ENABLING USERS TO USE THEIR OWN DOMAIN TO SIGN IN TO OTHER SITES AND SERVICES.

https://indieweb.org/IndieAuth
INDIEAUTH

1. ENTER YOUR URL
Try It!

Web Address:

yourdomain.com

Sign In
2. APP RETRIEVES AUTHORIZATION ENDPOINT
<link rel="authorization_endpoint" href="https://indieauth.com/auth"/>
3. AUTHENTICATE VIA AUTHORIZATION ENDPOINT
<li><a class="u-url" href="https://github.com/srushe" rel="me">GitHub</a></li>
<li><a class="u-url" href="https://twitter.com/srushe" rel="me">Twitter</a></li>
<li><a href="mailto:me@deeden.co.uk" rel="me">me@deeden.co.uk</a></li>
Sign in to indieauth.com

Authenticate using one of the methods below to sign in as https://deeden.co.uk/

2 supported and verified providers were found!    Jun 6    Refresh

- me@deeden.co.uk
  Receive a verification code via email

- github.com/srushe
  Ok! Click to authenticate using this provider.

You will be redirected to https://indieauth.com/success after authorizing this application.
You Successfully Authenticated!

Congrats! You've successfully authenticated as https://deeden.co.uk/
PUBLISHING

POSTS

- Content (a note, article, photo, checkin, bookmark etc.)
- In HTML
- Marked up as a microformats 2 h-entry
- Posted at a permalink
- On your personal domain
<link rel="micropub"
href="https://micropub.deeden.co.uk/"/>
POST TYPES
POST TYPE DISCOVERY

- A W3C Working Draft
- A simple algorithm specifies the order, and means of discovery
- Default types
  - Event
  - RSVP
  - Reply
  - Repost
  - Like
  - Video
  - Photo
  - Article
  - Note

---

**Post Type Discovery**

W3C Working Group Note 18 January 2018

- **This version:**
  - https://www.w3.org/TR/2018/NOTE-post-type-discovery-20180118/
- **Latest published version:**
  - https://www.w3.org/TR/post-type-discovery/
- **Latest editor’s draft:**
  - http://std.spec.indieweb.org/
- **Previous version:**
  - https://www.w3.org/TR/2017/WD-post-type-discovery-20170801/

**Editor:**

Tanveer Çelik

**Repository:**

- Github
  - Issues
  - Commits

---

**Abstract**

This section is non-normative.

Post Type Discovery specifies algorithms for determining the type of a post by what properties it has and potentially what value(s) they have, which helps avoid the need for explicit post types that are being abandoned by modern post creation UIs.

The Response Type Algorithm in particular specifies how a [Webmention] receiver determines whether a webmention is a comment, like, repost, RSVP, or other type of mention, widely implemented in practice by Webmention receivers to determine when and how to display various peer-to-peer social responses.
post_type = Indieweb::PostTypes.type_from(data)
Indieweb::PostTypes.configure do |config|
  config.insert_identifier(
    klass: PostType::Bookmark,
    before: Indieweb::PostTypes::Identifier::Article
  )
end

post_type = Indieweb::PostTypes.type_from(data)
MICROPUB

CLIENTS
URL to Favorite (like-of)
Title

Write something nice...
MICROPUB - CLIENTS

INDIGENOUS
Automatically POSSEing Likes and Reposts

Wed, Dec 27, 2017 10:53am -8:00

My #newwwyear goal this year was to make my likes and reposts automatically POSSE to Twitter when I favorite a Tweet URL.

Previously, Quill handled doing that for me.
MICROPUB ENDPOINTS
ONE MORE THING ABOUT AUTHENTICATION
Allow Quill access to deeden.co.uk?

The app https://quill.p3k.io/ would like to access your site, https://deeden.co.uk/

The app is requesting the following scopes:

- create
- update
<link rel="token_endpoint"
href="https://tokens.indieauth.com/token">
Or install it yourself as:

```
$ gem install indieauth-token-verification
```

## Configuration

Use of the gem requires two environment variables to be specified, `TOKEN_ENDPOINT`, and `DOMAIN`.

`TOKEN_ENDPOINT` specifies the token endpoint to be used to validate the access token. Failure to specify `TOKEN_ENDPOINT` will result in a `IndieAuth::TokenVerification::MissingTokenEndpointError` error being raised.

`DOMAIN` specifies the domain we expect to see in the response from the validated token. It should match that specified when the token was first generated. Failure to specify `DOMAIN` will result in a `IndieAuth::TokenVerification::MissingDomainError` error being raised.

## Usage

```ruby
# Verify the provided access token, with no scope requirement
IndieAuth::TokenVerification.new(access_token).verify

# Verify the provided access token, requiring a particular scope
IndieAuth::TokenVerification.new(access_token).verify("media")
```
POST / HTTP/1.1
Host: micropub.deeden.co.uk
Content-type: application/json

{
  "type": ["h-entry"],
  "properties": {
    "content": ["This is a lovely photo of Chiyomaru"],
    "category": ["sumo","sleeping"],
    "photo": ["https://media.deeden.co.uk/chiyomaru.jpg"]
  }
}
POST /HTTP/1.1
Host: micropub.deeden.co.uk
Content-type: application/json

{
    "action": "update",
    "url": "https://deeden.co.uk/note/123",
    "replace": {
        "content": ["Wibble wobble"]
    }
}
POST /HTTP/1.1
Host: micropub.deeden.co.uk
Content-type: application/json

{
  "action": "delete",
  "url": "https://deeden.co.uk/article/foo"
}
POST /HTTP/1.1
Host: micropub.deeden.co.uk
Content-type: application/json

{
    "action": "undelete",
    "url": "https://deeden.co.uk/article/foo"
}
GET /?q=config
Authorization: Bearer xxxxxxxxx
Accept: application/json

HTTP/1.1 200 OK
Content-type: application/json

{
    "media-endpoint": "https://media.deeden.co.uk",
    "syndicate-to": [
        {
            "uid": "https://twitter.com/",
            "name": "Twitter"
        }
    ]
}
MICROPUB - ENDPOINTS

SOFTWARE
ENDPOINTS - SOFTWARE

- Micropub Wordpress plugin - https://github.com/snarfed/wordpress-micropub (PHP)

- Transformative - https://github.com/barryf/transformative (Ruby)

- Endpoints designed to work with static site generators:
  - https://github.com/voxpelli/webpage-micropub-to-github (Javascript)
  - https://github.com/dg01d/nanopub (PHP)
MICROPUB

MY SOFTWARE - HO-TAN

- A Ruby Sinatra-based application
- Supports the following post types...
  - Articles, Notes, Bookmarks, Checkins
  - And one other
- Supports most of the spec (apart from media uploads)
- Generates JSON for each post
- Build by Hugo (Go static site generator)
- Currently un-released, but open-sourcing RSN
Indieweb::PostTypes.configure do |config|
  config.insert_identifier(
    klass: Indieweb::PostTypes::Identifier::Scrobble,
    before: Indieweb::PostTypes::Identifier::Article)
end

post_type = Indieweb::PostTypes.type_from(data)
SYNDICATION
PUBLISH (ON) OWN SITE, SYNDICATE ELSEWHERE
PUBLISH ELSEWHERE, SYNDICATE (TO) OWN SITE
<link rel="webmention" href="https://webmention.io/deeden.co.uk/webmention"/>
WEBMENTIONS

BRID.GY SITES

- Twitter
- Google+
- Instagram
- Flickr
- GitHub
- Facebook
AUTHENTICATION

MICROSUB
@aaronpk My curiosity is piqued, where can I find more about Aperture?
March 12, 2018 7:13pm +00:00

Grant Richmond liked a post on aaronparecki.com
March 12, 2018 7:02pm +00:00

Jared Hanson liked twitter.com/aaronpk/status/973255081519808512 and aaronparecki.com/2018/03/12/10/homebrew-microblog
March 12, 2018 6:08pm +00:00

quill.p3k.io

Marty McGuire
martymcguire.re

Micropub for a static Neocities website
This post gives more technical detail for the recent talk that I gave at Bring-a-Hack NYC. In it, I describe a system that copies posts from Ghost Party's Instagram automatically to the Ghost Party Website at ghostparty.today.
ell
41 minutes ago

https://aaronparecki.com/2018/03/12/11/aperture

@nnnnnathan github.com/aaronpk/A...

nnnnnathan
41 minutes ago

https://aaronparecki.com/2018/03/12/11/aperture

@aaronpk My curiosity is piqued, where can I find more about Aperture?

Grant Richmond
on hour ago
@nnnnnathan github.com/aaronpk/A...

@aaronpk My curiosity is piqued, where can I find more about Aperture?
MICROSUB - READER

CHANNELS

- As many channels as you want
- Add/remove feeds (sources) for a channel
- Unread indicators
- Default “Notifications” channel, and one other
- Mute/block users per channel, or on all channels
Multiple post types supported

“Actions” for replying, favouriting, reposting etc.

Marked as read when scrolled past
NEWS DRAGON

- Ruby-based Sinatra application
- Supports channels and posts
- IndieAuth-enabled
- Rake tasks to...
  - Add sources
  - Add source to channels
  - Update posts for a source
- Left for MVP...
  - Creating/updating/deleting channels
  - Move rake tasks to proper api calls
MORE ABOUT THE INDIEWEB

RESOURCES

- indieweb.org - The main IndieWeb site, an extensive wiki
- chat.indieweb.org - Also IRC, and Slack interfaces
- This Week in the IndieWeb - A weekly email
- Homebrew Website Club
- Podcasts
  - This Week in the IndieWeb Audio Edition - A podcast of the weekly email
  - Percolator - Aaron Parecki’s microcast
  - An IndieWeb Podcast - David Shanske and Chris Aldrich podcast on all things IndieWeb
- Blogs, so many blogs...
THANK YOU