

The Future of OpenID

Simon Willison

The Future of Web Apps
February 21st, 2007

AOL Supports OpenID

**Symantec Unveils Consumer
Identity Strategy**

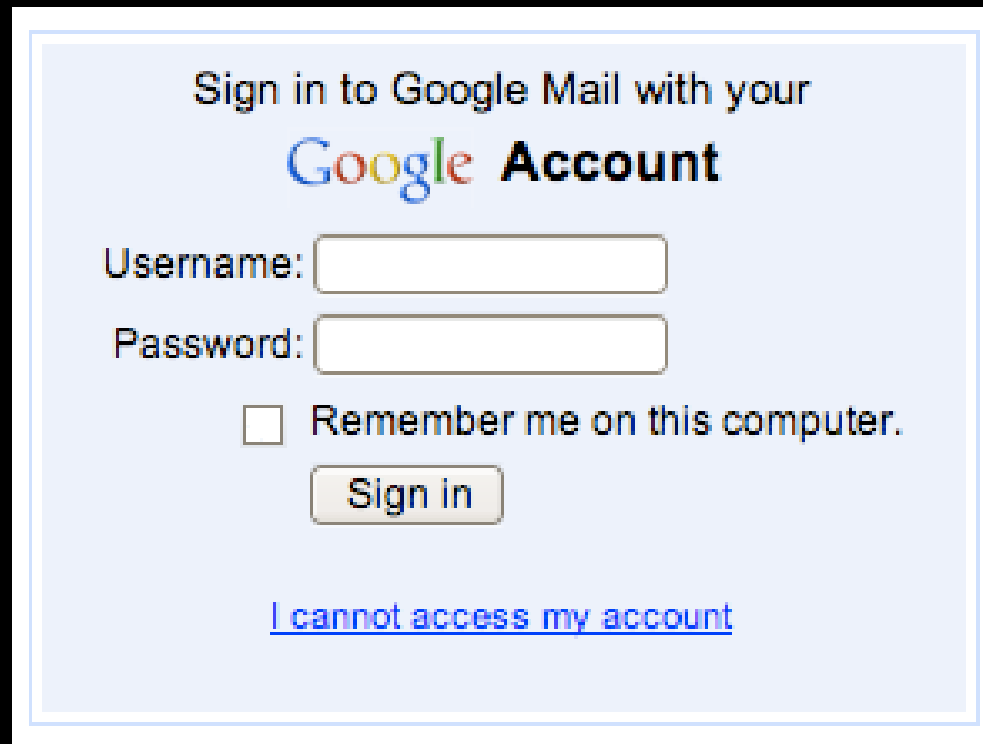
**OpenID Gets a Boost
From Microsoft**

Last night on TechCrunch:

*It's definitely time to
declare OpenID a winner
and the hope for making
a single-sign on world a
reality.*

- What problems does OpenID solve?
- How does it work?
- What Cool Stuff can you build with it?
- What's wrong with it?

Web authentication sucks!

A screenshot of a web authentication form for Google Mail. The form is light blue with a white border. It contains the text "Sign in to Google Mail with your" followed by the "Google Account" logo. Below this are two input fields: "Username:" and "Password:". There is a checkbox labeled "Remember me on this computer." and a "Sign in" button. At the bottom, there is a link that says "I cannot access my account".

Sign in to Google Mail with your
Google Account

Username:

Password:

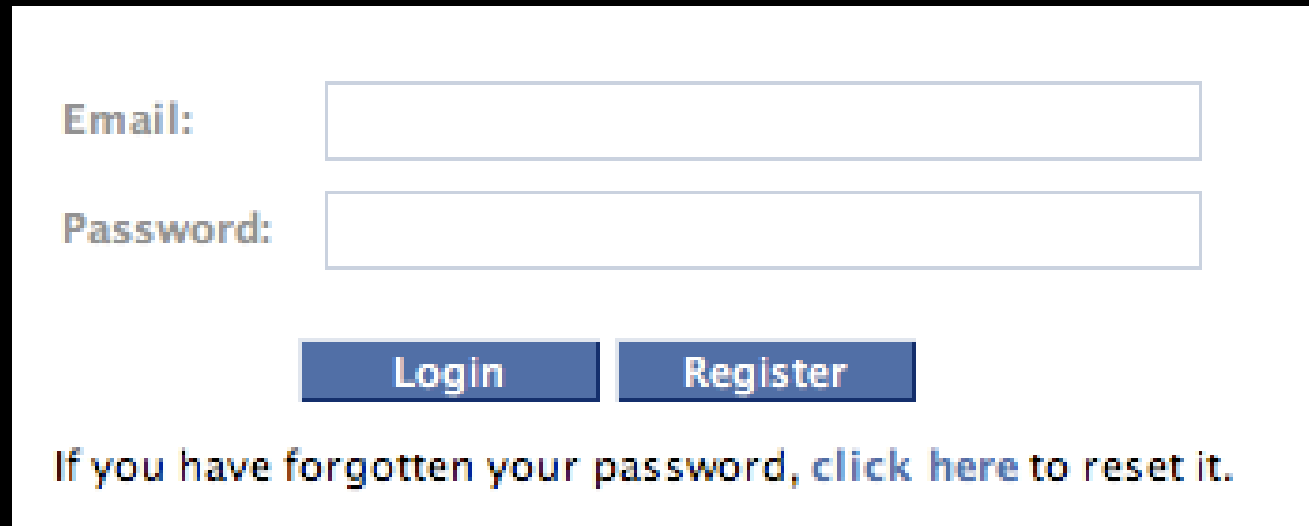
☐ Remember me on this computer.

[I cannot access my account](#)

What's my username again?

What's my password again?

Web authentication sucks!



Email:

Password:

If you have forgotten your password, [click here](#) to reset it.

Which e-mail address did I sign up with again?




 Already have an ID or a Yahoo! Mail address? [Sign In.](#)

Fields marked with an asterisk * are required.

Create Your Yahoo! ID

* First name:

* Last name:

* Preferred content: 

* Gender:

* Yahoo! ID: @yahoo.com

ID may consist of a-z, 0-9, underscores, and a single dot (.)

* Password:

Six characters or more; capitalization matters!

* Re-type password:

If You Forget Your Password...

* Security question:

* Your answer:

Four characters or more. Make sure your answer is memorable for you but hard for others to guess!

* Birthday: dd , yyyy 

* ZIP/Postal code:

Alternate Email: 

Verify Your Registration

* Enter the code shown: [More info](#) 

This helps Yahoo! prevent automated registrations.

Registration Verification Code

- Too many usernames
- Too many passwords
- Too many forms!

Single Sign-On
will save us!



Microsoft®

Passport
Network

The TypeKey logo, featuring a stylized key icon above the text 'TypeKey' and 'Authentication Service' below it. The background of the logo is a blue rectangle with a repeating pattern of small key icons.

TypeKey™
Authentication Service



Would you trust these
men with your identity?



Maybe you trust these people



But what if they turn evil?

Single Sign-On
without a Single
Point-of-Control?



OpenID

- Decentralised - you pick who you want to manage your identity
- Your identity is a URL
- e.g. *swillison.livejournal.com*

Sign-In | Sign-Up



Universally the best way to
share, search, store and sort
your photos online.

Learn More

Demo: logging in to Zoomr using
<http://swillison.livejournal.com/>

China

Japan

POWERED BY



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- Single Sign-On by entering *just your username*
- What about account creation?
- Do we still have to fill out a form?



Demo: creating a new account on
ma.gnolia.com using
<http://simonwillison.myopenid.com/>

So how does it work?



MyOpenID Free OpenID Server

Identity Page for <http://simonwillison.myopenid.com/>

User since Tue Feb 20 08:51:51 2007

This is the [OpenID](#) identity page for <http://simonwillison.myopenid.com/>.

[Learn more](#) about OpenID or start using it by signing up for [your FREE MyOpenID account!](#)

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://
<html>
  <head>
    <title>Identity Page for http://simonwillison.myopenid.com/
  </title>
  <script type="text/javascript" src="http://www.myopenid.com/static/dism
  <link rel="openid.server" href="http://www.myopenid.com/server" />
  <link rel="shortcut icon" href="http://www.myopenid.com/favicon.ico" />
  <link rel="icon" href="http://www.myopenid.com/favicon.ico" />
  <link rel="stylesheet" type="text/css" href="http://www.myopenid.com/st
  </head>
  <body>
    <div id="main">

    <div id="head">

      <div>
        <span id="logotext"><a href="https://www.myopenid.com/">MyOpenID</a
        <span id="logosubhead">Free OpenID Server</span>
        <div class="clear"></div>
      </div>
    </div>

    <div id="main_content">
      <h1>Identity Page for http://simonwillison.myopenid.com/
```

```
<link rel="openid.server"  
  href="http://www.myopenid.com/server" />
```

Cryptography happens

If you want the details, read the spec

Screw LiveJournal and
MyOpenID! This is
meant to be
decentralised!

Simon Willison's Weblog

http://simonwillison.net/

Google

Sign in with OpenID

Simon Willison's Weblog

On [openid](#), [python](#), [funny](#), [django](#), [javascript](#), ...

Recent entries

Elsewhere

[Speaking at the Future of Web Apps](#) 10 days ago

Just a quick update to say that I'll be speaking at the [Future of Web Apps](#) conference in London on February the 21st, talking about OpenID. I really enjoyed last year's event and feel honored to be included in such an exciting schedule.

I gave a [15 minute introductory talk](#) on OpenID at the first [Oxford Geek Night](#) last Wednesday. The event was an enormous success (attracting over 100 people) and there should be another one in the not too distant future. Recommended.

[11:45 pm / 10th February 2007](#) / / [futureofwebapps](#), [openid](#), [oxfordgeeknights](#), [speaking](#)

[Why you should be using disambiguated URLs](#) 16 days ago

Good URLs are important. The best URLs are [readable](#), [reliable](#) and [hackable](#).

One of the nice things about Rails, Django and other modern Web frameworks is that most of them encourage smart URL design. Rails has relatively smart defaults and a powerful routing system for custom URLs; Django forces you to think about URL design up front by defining them as regular

[Yesterday](#)

[Django IRC FAQ](#). Frequently asked questions from the Django IRC channel.

[19th February 2007](#)

[Geek I Manager](#). Meri Williams is one of the most productive people I know. This is her new blog on being a manager and a geek at the same time, with plenty of productivity advice.

[18th February 2007](#)

[30 second PyPy tutorial](#). Zyroth on programming.reddit.com shows how to interactively compile a Python function to C using PyPy and benchmark it against the original.

[17th February 2007](#)

[parseDateString function in dateparse.js return wrong date for '2006-12-31'](#). I didn't realise that you have to initialise a

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Simon Willison's Weblog</title>
<link rel="alternate" type="application/atom+xml" title="Atom" href="http://fe
<link rel="stylesheet" type="text/css" href="/static/css/all.css?r256">
<script type="text/javascript" src="/static/js/all.js?r256"></script>
<link rel="openid.server" href="http://www.livejournal.com/openid/server.bml">
<link rel="openid.delegate" href="http://swillison.livejournal.com/">
</head>
<body>

<p class="bighead-toolbar">
  <a id="atomfeedlink" href="http://feeds.simonwillison.net/swn-everything"

  <a href="/openid/" class="signin">Sign in with 
  <h1>Simon Willison's Weblog</h1>
  <div id="bigheadcontainer">
    <div id="searchbox">
      <form action="/search/" method="get">
        <p><input class="text" type="text" name="q">
        <input type="image" class="image" src="/static/css/img/search.gif" alt="Search"

```

```
<link rel="openid.server"
  href="http://www.livejournal.com/openid/server.bml">
<link rel="openid.delegate"
  href="http://swillison.livejournal.com/">
```

Demo: logging in to Jyte using <http://simonwillison.net/>, delegating to LiveJournal

Jyte: Spread the Cred

http://jyte.com/

Sign in with OpenID Help

jyte Home Sign up Everybody's Claims

Search Go

Make claims and share cred

Including claims about [meta](#), [programming](#) and [food](#).

Claim anything!
Yes, anything. If you have something to say, make a [claim](#) and let the community vote on it. Make claims about yourself, friends, and family. Put your stake in the ground and see where the votes go!

Spread the Cred
Is your friend an expert at something, or do they have a nice personality trait? Give them cred and let the whole world know. Sharing cred is a fun way to build lightweight reputation around OpenID.

Connect with people
Add a new dimension to your social network using Jyte [groups](#) and contacts. Create groups and share your online cred and claims with the people who matter.

Jason is really good at darts
By [branelin.com](#) today

6 + 4 -

Agreed (6) Disagreed (4)

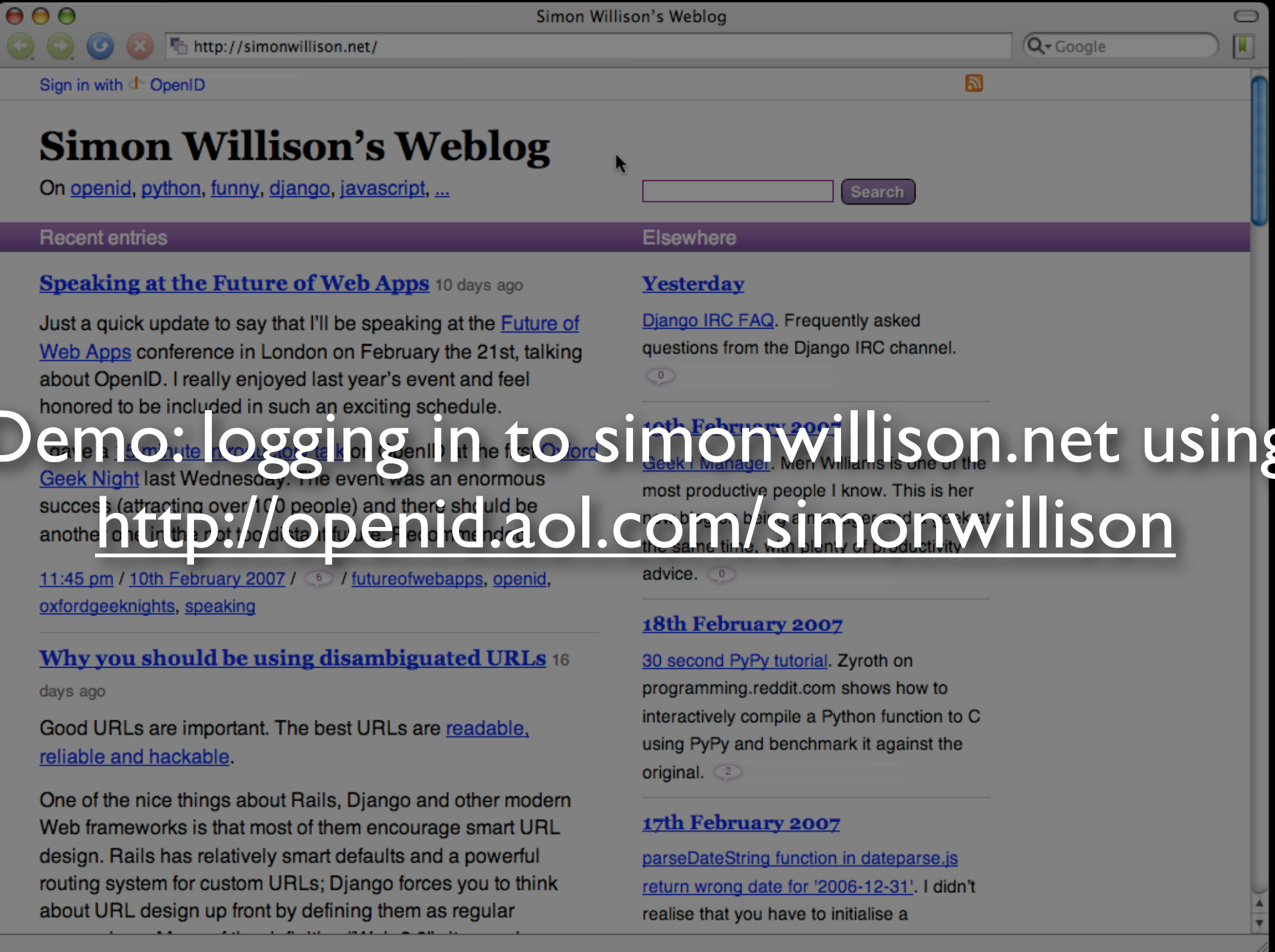
Tags
[meta](#)
[programming](#)
[food](#)
[openid](#)
[politics](#)
[philosophy](#)

Recent claims

23	3	I look for Open Source alternatives By • LinuxTX about 4 hours ago
28	1	The human desire to say something that there is no need to say is often quite irritating

Who provides OpenID?

- SixApart: LiveJournal, Vox, TypeKey
- VeriSign PIP
- MyOpenID.com
- ClaimID.com
- AOL
- Digg - coming soon!



Demo: logging in to simonwillison.net using
http://openid.aol.com/simonwillison

- OpenID doesn't dictate the authentication method used by OpenID providers
- Jabber authentication
- Secure browser certificates
- RSA keyfobs
- DynDNS to bind to your IP

idproxy.net

idproxy.net lets you use your Yahoo! account to sign in to sites that support the OpenID standard ([read more](#), [blog announcement](#)).

YAHOO!



LIVEJOURNAL™

magnolia

claimID

Click below to get started:

YAHOO! Sign In



Demo: creating an OpenID on idproxy.net using an existing Yahoo! account

If you provide an authentication API but don't support OpenID, someone else will support it for you.

One obvious reason to
support OpenID

Startup fatigue

- TechCrunch links to dozens of new startups every week
- TechCrunch readers aren't going to create dozens of new accounts every week

Dumb networks

- The Internet is a *dumb network*
- It gets packets from A to B
- It's up to A and B (the applications) to do the smart stuff
- The intelligence is on the edges

- OpenID is a *dumb network*
- It lets X tell Y that Z can prove ownership of a URL
- It's up to X and Y to do the smart stuff
- The intelligence is on the edges

What can we build with
OpenID that we
couldn't build before?

Light-weight accounts

- Any application that people normally wouldn't bother to create an account for
- Use OpenID to extend the lifetime of cookies

Pre-approved accounts

E-mail a friend and say:

“I’ve added you to as an author to
the blog I set up for our band”

Corporate SSO

- You can use OpenID behind the firewall
- *username.internal.example.com*
- Restrict your applications to only accepting OpenIDs of that format

OpenID and Microformats

- hCard
 - Your OpenID can embed your public contact details
- XFN
 - You can import a user's contacts by introspecting their OpenID

Site-specific OpenID hacks

- "Log in with your LiveJournal OpenID and we'll import your LJ contacts"
- "Log in with your AOL OpenID and we'll send you updates over AIM"

Social whitelists

- Came from discussions around moderation with Tom Coates
- Publish a list of the OpenIDs that you trust to comment on your blog without needing moderation
- Syndicate the trusted whitelists from your friends

Jyte



5.3

Cred Points

13 people have given cred
to Simon Willison

Best Qualities

- **openid** 6.4
- **django** 4.6
- **python** 3.3
- **programming** 3.1
- **evangelist** 2.6
- **leader** 1.9

Simon Willison

User since January 27 [edit your profile](#)

OpenID <http://simonwillison.net/>

Interests

[django](#) [javascript](#) [openid](#) [phishing](#) [python](#) [security](#)

Groups

Simon Willison is a member of [JavaScript Hackers](#), [Openid users](#), [Programming](#), [OpenID Hackers](#)

About:

Claims

By:

Claims

Comments

Votes

Cred

Recent claims about Simon Willison



6

5

[Simon Willison turned me on to OpenID](#)

18

1

Simon Willison is the owner of idproxy.net.

28

2

Simon Willison is one of the creators of Django.



Simon Willison is the owner of [idproxy.net](#).

By • [Carlo Zottmann](#) on January 31, 2007

Tags: [openid](#)

18



1



Agreed

[Marcin Jagodziński](#) • [Simon Willison](#) •
[Carlo Zottmann](#) • [Larry Drebes](#) •
[dAniel hAhler](#) • [David Recordon](#) •
[Martin Atkins](#) • [Gabe Wachob](#) •
[Evan Prodromou](#) • [Lukas Rosenstock](#) •

And 8 more

Disagreed

• [bobloblaw.myopenid.com](#)

18

1

Jyte: Spread the Cred

http://jyte.com/groups/javascript_hackers

Google

Jyte - Profile for Simo...

Jyte - Recent claims ta...

Jyte: Spread the Cred

Signed in as [simonwillison.net](#) (Sign Out) Help

jyte

[Home](#) [You](#) [Make a Claim](#) [Groups](#) [Everybody's Claims](#)

[Go](#)

No
Icon

JavaScript Hackers Group

Created by [Kent Brewster](#) 19 days

Much-maligned computer programming language, capable of amazing things in the right (or wrong) hands.

Interests
[javascript](#)

Membership
[Open membership](#) - You are a member. ([remove](#))

Invite someone to JavaScript Hackers

Moderators (1)

[Kent Brewster](#)

Members (21)

[Kent Brewster](#) [Martin Atkins](#) [dereko](#) [Daniel E Renfer](#) [Carlo Zottmann](#) [Paco NATHAN](#) [Brian Benzinger](#) [Arpad Borsos](#) [giovanni gallucci](#) [Jonathan Rascher](#) [Ilya](#) [Andreas Pizsa](#) [Rick Wong](#) [remark](#) [Kacper Gutowski](#) [Ryan Grove](#) [Brett](#) [Simon Willison](#) [Piotr Petrus](#) [William](#) [stu](#)

Related claims

5

9

[jQuery is the best JavaScript library](#)
By [dAniel hAhlér](#) 1 day ago → [2 comments](#)

12

0

[DArchangel really, really wants you to know that he's writing a JavaScript interpreter.](#)

Jyte group export

- You can export a Jyte group as a simple whitelist-style list of OpenIDs
- You could manage an invite only group using Jyte, then hook that in to another site's authentication mechanism

Decentralised social networks

What sucks about
OpenID

Phishing

Kitten
Overload!



MyOpenID Free OpenID Server [Set A Personal Icon](#)

<http://simonw.myopenid.com/> [Home](#) [Sites](#) [Personas](#) [Settings](#) [Directory](#) [Sign Out](#)
[Confirm Email Address](#)

News

We're pleased to announce the new [MyOpenID Affiliate Program](#)! Become a MyOpenID affiliate now!

MyOpenID Featured Site

 **Jyte** (<http://jyte.com>) Claims, Cred, and Contacts!

My Stuff

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- [My Affiliate Sites \(New!\)](#)

New to OpenID?

Our tutorial will help you get started using your identity.

[» Tutorial »](#)

Latest OpenID Sites

[Crunchy reviewsby.us](#)
[MyMockDraft](#)
[Loud is Relative](#)
[Jyte](#)

[More in the directory](#)

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More
Kittens!

Kitten
Overload!



Identity
theft!
:(

idproxy.net

You need to sign in

You need to log in to idproxy.net to complete this process.

You should **use a bookmark** or **type in the address** to do this. This page does not contain any links, to protect you from phishing.

myopenid.com

MyOpenID needs you to sign in

You must sign in to authenticate to <http://simonwillison.net/> as <http://simonw.myopenid.com/>

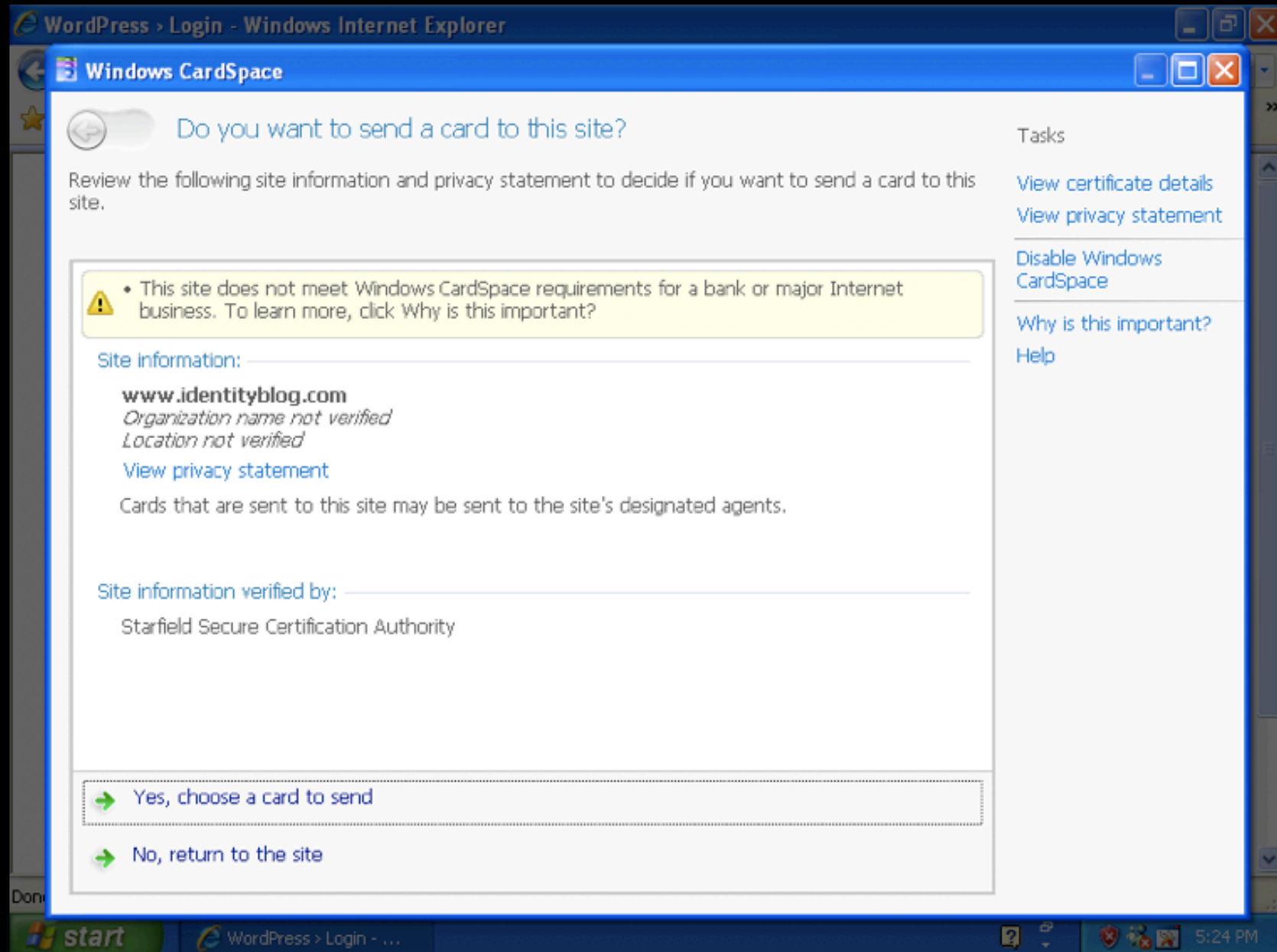
With Safe Sign-In activated, you can only sign into MyOpenID by going directly to the "Sign In" page of the MyOpenID website.

Once you have signed in, you may [continue this action »](#)

If another Web site requests your MyOpenID password, it may be an attempt to steal your password! Only enter your password at the MyOpenID "Sign In" page.

We recommend bookmarking the MyOpenID "Sign In" page, and using that bookmark to sign in at the beginning of your browsing session. If you're at a computer without your bookmarks, you can type <https://www.myopenid.com/signin> into the browser's location bar.

CardSpace



Competition

- Providers can compete on their defences against phishing
- This is a problem that can be solved at the edges

What if my provider
goes down?

One for the applications

- This is a similar problem to password recovery
- E-mail the user a reset token
- Allow users to associate multiple OpenIDs with their account

Privacy!

a.k.a.

“I don’t want my boss
to know that I’m a
furry”

[article](#)[discussion](#)[view source](#)[history](#)

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CULTURE

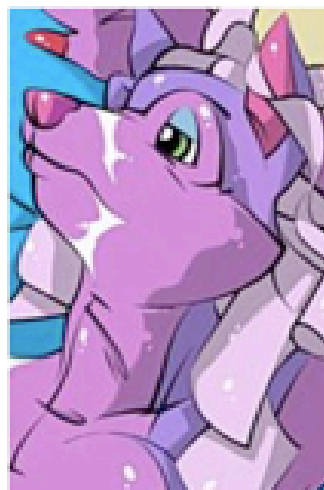
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Featured article

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Balloonies are a particularly fanciful style of [furry character](#), and a sub-genre of the fandom. The basic concept of the Balloonie is a living, animate version of a "real" creature made of rubber, latex, or similar materials, though some have been crafted from substances as unusual as soap bubbles or [bubblegum](#)[?]. Balloonies can be considered a variation of [inanimorph](#) - characters that are composed of inorganic materials or substances not ordinarily considered alive.



When [roleplayed](#), the creation of a balloonie tends to come about through the deliberate action of a second person. Their nature makes them popular with those who have an attraction to materials like rubber, and in some circles these fans and their characters are called [rubberfurs](#). ([more...](#))

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Winners of the [Midwest FurFest 2006 County Fur Pageant](#)

Image credit: [GreenReaper](#)

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Featured comic

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wikia

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Use multiple OpenIDs!

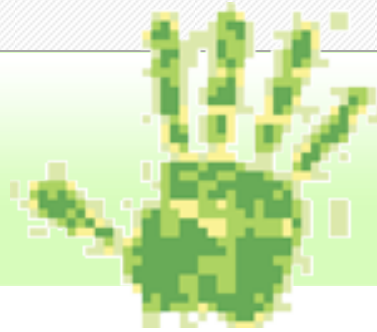
People have been
managing multiple
online identities since
the Internet began

OpenID is hard
to explain

*If it takes 30 minutes to
explain it to a room full of
geeks, what chance has
anyone else got?*

Your help needed!

(Or if you like, this is an Exciting Business Opportunity)



beta
FreeYourID.com

Your name is the basis for your openID, your fully personalized email address and web page.

Your name:



- > [What is Open ID?](#)
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Welcome to YourID.name

Welcome to the service that is likely to do as much for your identity online as your birth certificate has done "offline".

We personalize your presence online and help you manage your identity on the Internet - who gets what information, what is it used for, and how you can be reached. We make it easier for the "good guys" to find you, and harder for the "bad guys" to get, use or abuse your information.

We activate your personalized address for all your web identity data and services on the Internet personal identity space, .name, and an email address you actually can own for life, as opposed to having an address on someone else's domain. It comes with an identity management service using OpenID, and optionally, a personal webpage aggregator powered by Pageflakes.

Try it today for free for 90 days! You'll love it - no strings attached.

Don't just implement OpenID

Innovate with it

Thank you!