

How to pioneer a successful crowd-sourcing site



Interlab 2011

Ryan McKeel

November 1st, 2011



Ryan McKeel

ryan.mckeel@nrel.gov

[linkedin.com/in/ryanmckeel](https://www.linkedin.com/in/ryanmckeel)

[@rmckeel](#)

Introduction to OpenEI

Open Energy Information (OpenEI.org) is a free and open knowledge sharing platform created to facilitate access to energy-related data, models, tools, and information. The collaborative nature of the platform, built using Semantic MediaWiki and following Linked Open Data standards, has led to the creation of a clean energy commons.

The screenshot displays the OpenEI website interface. At the top, the logo "OpenEI | OPENENERGYINFO" is visible, along with "Login | Sign Up" links. Below the logo, there are navigation tabs for "Wiki", "Datasets", and "Linked Data". A search bar with "Go" and "Search" buttons is present. The main content area is divided into several sections:

- Left Sidebar:** Contains links to "Clean Energy Economy CLEAN", "Incentives and Policies", "International Clean Energy Analysis", "Latinoamérica", "LEDS", "Renewable Energy News", "U.S. OpenLabs", "Browse by Region" (with a world map), and "Featured OpenEI Pages".
- Center:** Titled "Energy Information, Data, and other Resources", it features icons for "buildings", "geothermal", "smart grid", "solar", "utilities", "wind", and "oil and gas". Below these icons is a collage of images including a "BIOFUEL" sign, a man speaking at a podium, a car, and power lines.
- Right Sidebar:** Contains "Latest News" with three entries: "23 May 2011 Vice President Joe Biden's visit to NREL...", "20 May 2011 Study Highlights Most Important Attribut...", and "19 May 2011 Japan-U.S. Clean Energy Plan brings lead...". Below this is "Recent Updates" with links to "EIA Utility Companies and Aliases", "BioPower Atlas and BioFuels Atlas", and "BEopt". At the bottom, it says "...see more updates (+)" and "Recent Contributors" with "new this week: Jamesmarian72 (1)".

A brief history of OpenEI.org

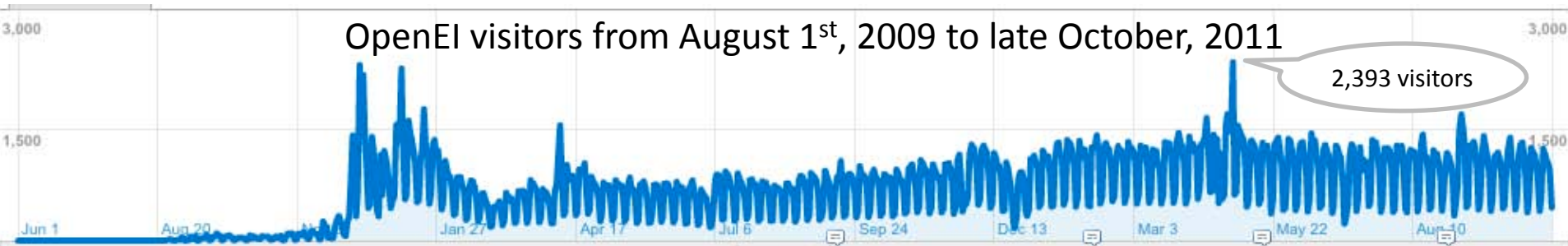
January 2009
Memo on transparency & open
government

Sept 2009
Site launch

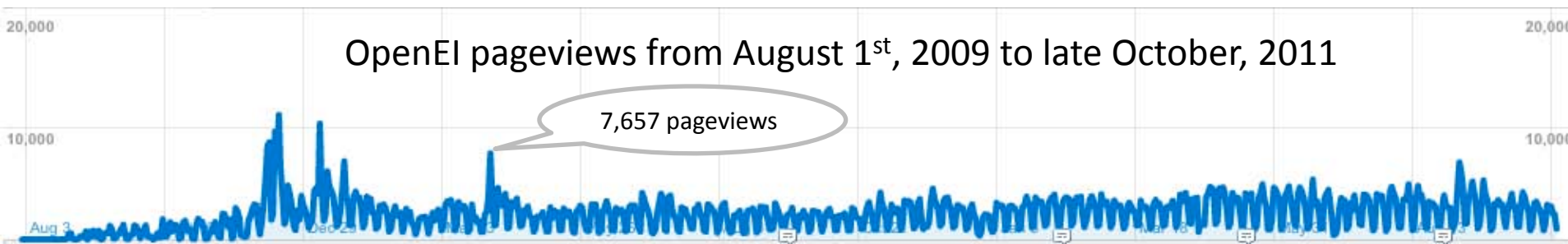
December 2009
Open Government
Directive

2010
Added to White House
Innovations Gallery,
Amazon case study,
LOD diagram

OpenEI visitors from August 1st, 2009 to late October, 2011



OpenEI pageviews from August 1st, 2009 to late October, 2011



The OpenEI team



What is crowd sourcing?

Here is a crowd-sourced crowdsourcing definition:

“Crowdsourcing is the act of sourcing tasks traditionally performed by specific individuals to an undefined large group of people or community (crowd) through an open call.”

- wikipedia.org


To crowd-source, or not...

Why

- Free or low-cost
- Harness DIY mentality for content, data, products
- Out of the box ideas
- Predictions based off “wisdom of the crowds”

Why not

- Low-quality inputs (typos, bad data, spam)
- Legal challenges
- Hard to build up a critical mass



*All we have to do is
build it...*

*Then figure out how to divert
traffic going to the
255,000,000 other ballfields*

Audience survey

- **Crowd-sourcing online is often thought of as group creation and organization of documents and media.**

Audience survey

- **Wikipedia**

- 3.8M content pages
- 494 M page edits
- 15.6 M registered users
- 145 K active users in last 30 days



- **Next largest wikis?**

- Wikimedia Commons
- Then, Baidu Baike, a censored encyclopedia
 - 3.5 M articles
 - First three weeks, Baidu Baike grew to 90 K articles



Why even try?

- **Private contribution sites**

- Is momentum top-down or bottom-up?
- Does the site have a specific goal, and really meet the needs of at least 1 person?

- **Public contribution sites**

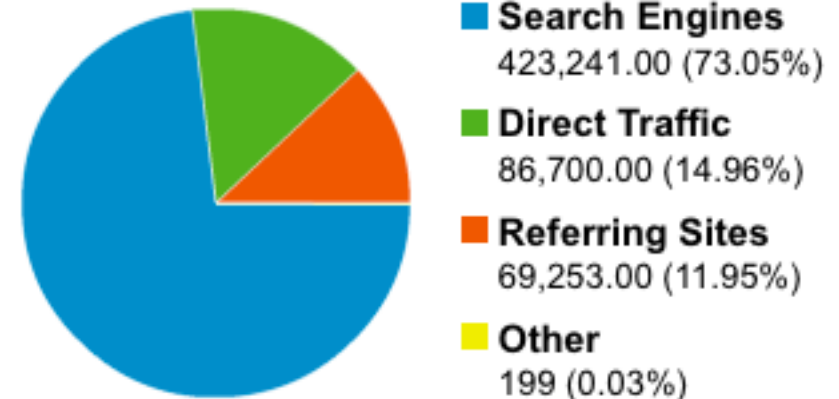
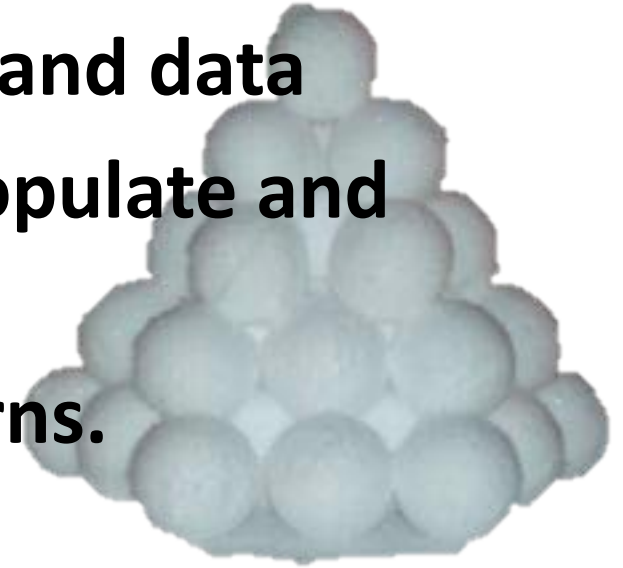
- What is the barrier to entry?
- Are others already doing this better?
- Do you have content experts and funding for the 'dry season'?

Why even try?

- **Know what success is**
- **Be prepared for failure or eventual loss of interest**
 - “When you lose interest in a program, your last duty to it is to hand it off to a competent successor.” – summation from the Cathedral and the Bazaar
 - “Often, the most striking and innovative solutions come from realizing that your concept of the problem was wrong.” – summation from the Cathedral and the Bazaar
 - Plan an exit strategy
- **Prepare for the long-haul**

Starting the snowball

- Use bots to populate content and data
- Give your staff free time to populate and warden your content
- Interns, interns, interns. Interns.
- Press releases
- 1-minute model
- Work on SEO



The snowball gains momentum

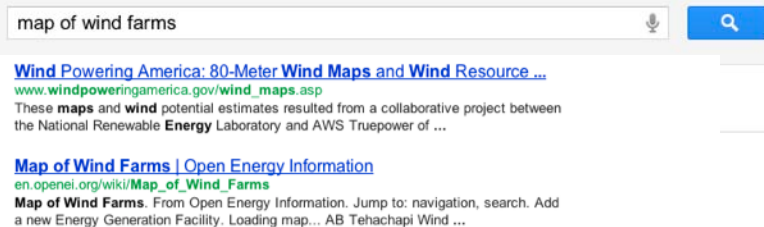
- **Continually update content**
- **APIs and demo apps**
- **Highlight successes**
- **Blogging**
- **Forums, comments, or something to get people talking**
- **Challenges, cash prizes**
- **Seek out groups who find your information useful, and get them relying on it**
- **Help content**

Getting people to contribute to a wiki

Tip: Check out the 90-9-1 theory (see wikipatterns.com)

Carrots

- Self-promotion, especially if your site has great SEO



- “Street cred” – community respect and rewards
- Encourage editing over creating, templates
- Lower the barrier

Sticks

- “Ack! My company info is wrong!”
- All my competitors have a listing..
- Forced submission of data

The snowball is unstoppable

- Team up with outside partners
- Don't stop at cutting the apron strings, give away control
- Tame your complexity and increase “goodness” (check out the [Simplicity Cycle](#) for free)
- Funding for data wardens in high-value areas
- External apps rely on your data
- Long-term community members

Persistence against all odds!





Building apps to showcase your data

OpenEI apps

- Utility rate database
- LEDS
- CLEAN
- Incentives page
- Incentive widget
- Transparent cost database (restricted beta)

More information

- [OpenEI.org](https://openenergy.org)
- [**@openenergyinfo**](https://twitter.com/openenergyinfo)
- [Amazon case study on OpenEI](#)
- [List of large-scale open crowdsourcing examples](#)
- [Amazon Mechanical Turk](#)

Thanks!
