# knewtarget



Stunning Ideas, Delivered Online.

#### Pedja Grujic (pgrujic)



United States

LinkedIn Drupal Answers

Current Role(s): Director of Technology New Target, Inc.

IRC: codezpecg

#### Professional Info

Industries Worked In: Associations, Non-Profit, Government, Corporate

http://www.newtarget.com

#### Personal Info

Gender: male

Languages spoken: Bosnian Croatian English Serbian Serbo-Croatian

#### History

Member for 4 years 2 months

Documentation Over 5 edits

Areas of Expertise:

Developer Frontend developer Project Manager System Architect Consultant

Drupal Events:

DrupalCon Denver 2012 DrupalCon Portland 2013 DrupalCon Austin 2014 DrupalCon Los Angeles 2015

#### Projects

Slickmap (10 commits)

Traffic Advisor (9 commits)

Commerce CyberSource SASOP (2 commits)

Revive Adserver Keywords (2 commits)

MD5 Check (1 commit)

DeDupe Content Checker (1 commit)

Membersuite SSO (1 commit)

Claymore (1 commit)

Fellowship One SSO (1 commit)

Total: 28 commits

Hey! Want to support the Drupal Community, Drupal.org's infrastructure, and get one of the cool Drupal Association badges on your profile page? Become an Individual Member today.

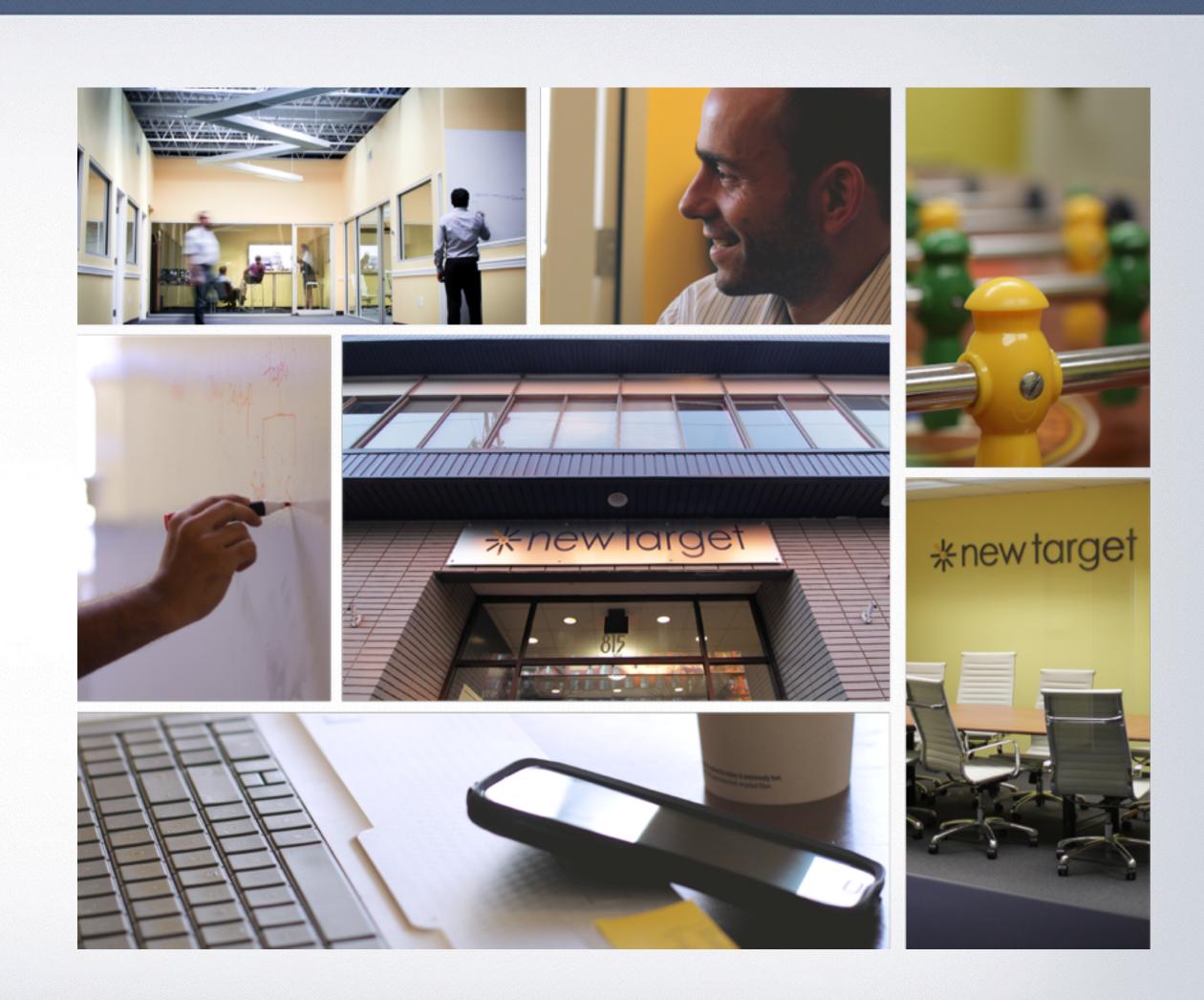


pgrujic helps support and grow the Drupal community with the Drupal Association.

I contributed Drupal patches I contributed Drupal modules I contributed to Drupal.org I contributed Drupal documentation I contributed Drupal translations I reviewed Project applications I help in the Drupal support forums I provide Drupal-related services I give support on IRC

## New Target Inc

- Creating membership experiences
- Integrating association technologies
- Utilizing the best techniques and languages
- Designing elegant purpose-driven designs
- Architecting performance



### Our Services







Design



Development



Integration



Hosting



Marketing

### Our Experience















## Drupal and Solr Search: A Powerful Marriage

# What is Apache Solr?

## On-site Search



## Apache Solr



Blazing fast open source enterprise search

#### What is Solr?

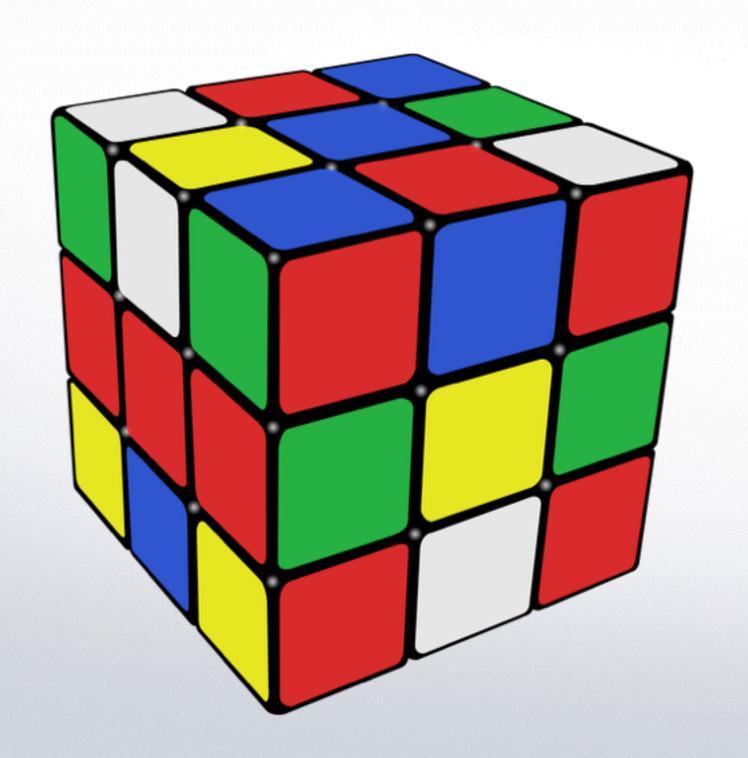
- A service that runs separately from your website
- Contains a copy of each piece of content that might come back from a search
- Responds to queries by deciding which copies are most relevant to the submitted search terms
- Returns a list telling your site what pieces of content to display and in what order

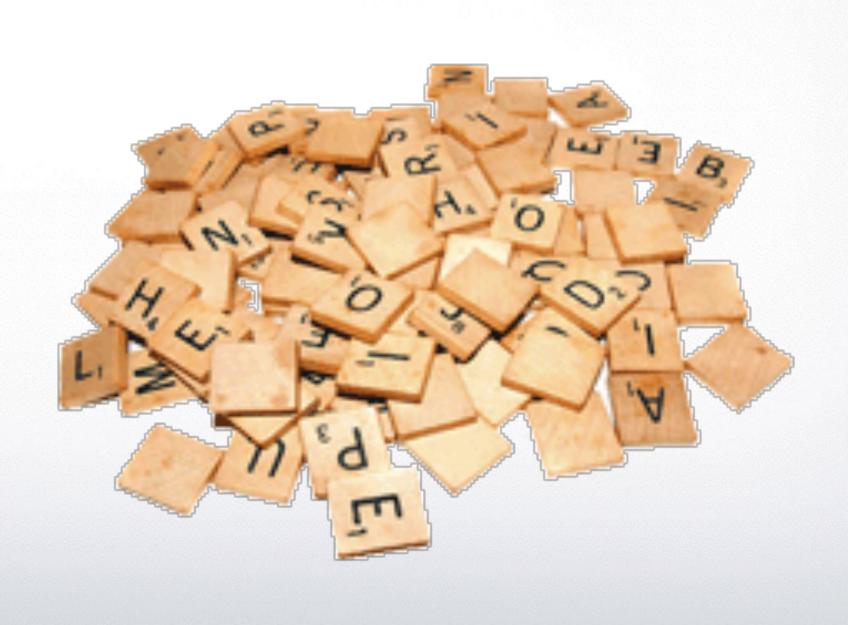
#### What is Solr made of?

- · One or more cores, each with:
- A Lucene index
- · Configuration files defining a schema for each core
- A REST-like interface to:
- · Handle index submissions, deletions and updates
- Accept and respond to queries
- Plug-ins like Tika (for indexing PDFs and Word documents)

## Query Database?

Databases must be organized into neat columns and rows Solr uses an indexing library called Lucene that is designed for unstructured data

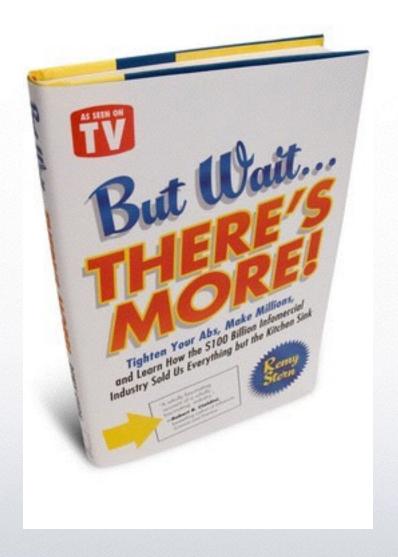




### How does it work?

It makes an "inverted index" of each word in each document
How frequent is it in the document?
How rare is it on the site?
Is it in bold? Is it in the title?

It uses its index to match search words to the most relevant documents



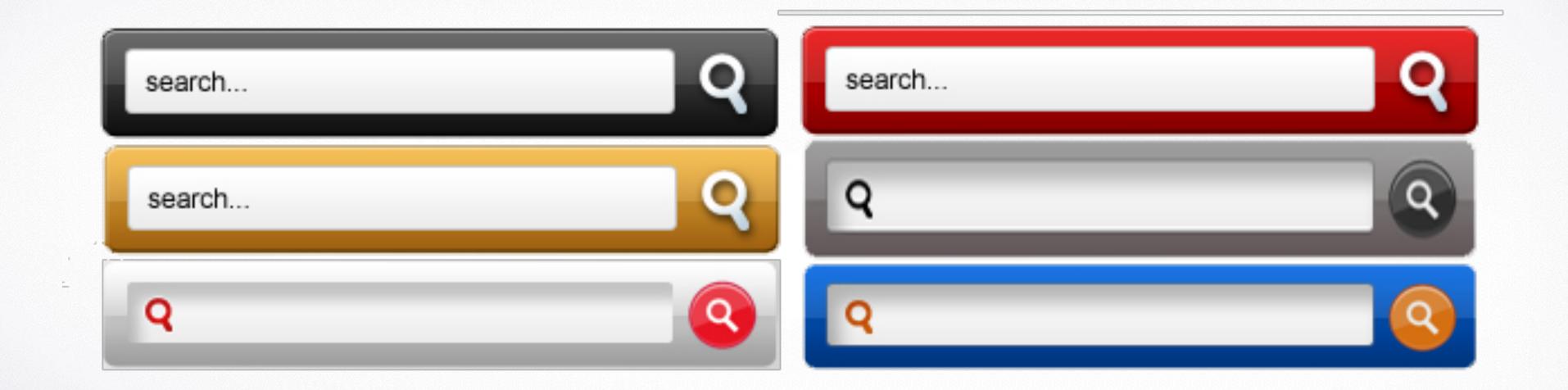
## What else does Solr do?

- Pagination
- Sorting
- Faceting
- Spell checking
- Hit highlighting
- "More like this"
- Document clustering
- Multilingual searching



## What is Solr missing?

A user-friendly interface for indexing and searching

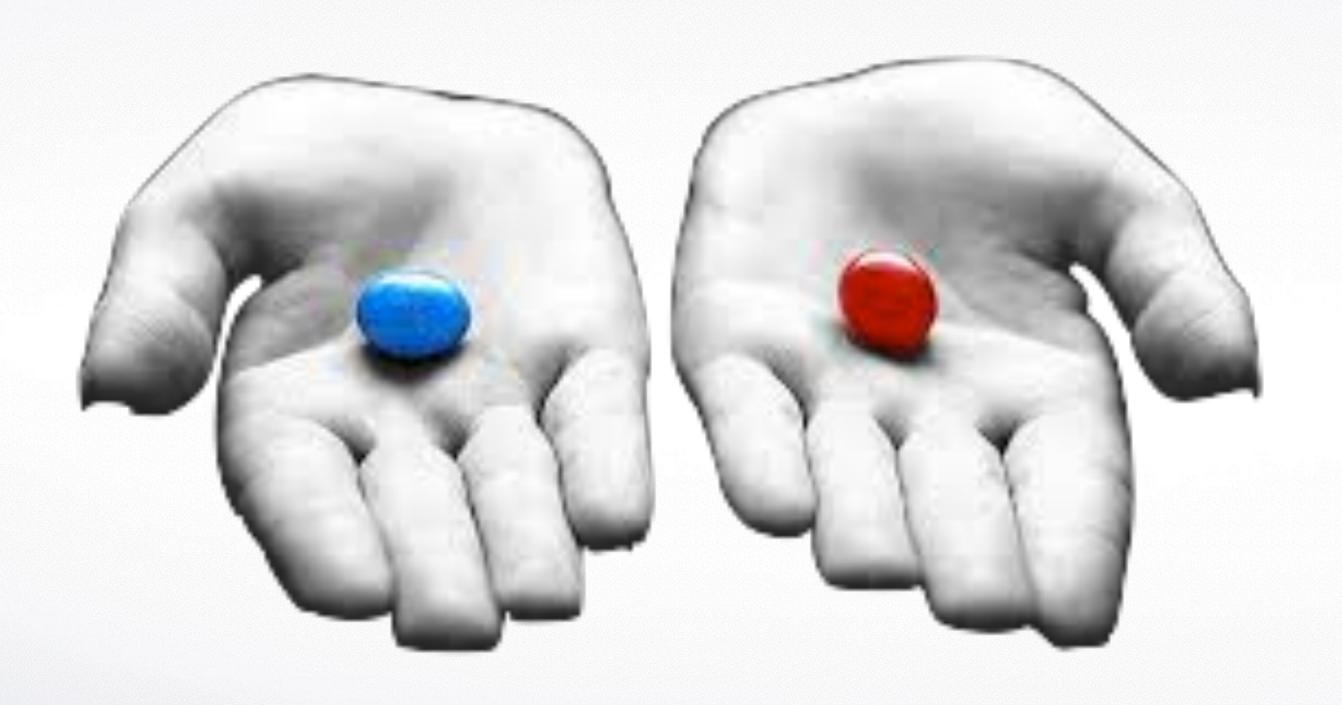


## Drupal to the rescue



# Drupal Modules

## Choose Your Own Adventure



## Solr Modules

### Apache Solr Search

- Reported installs: 21,571 sites currently report using this module.
- Downloads: 488,672

#### Search API

- Reported installs: 65,541
   sites currently report using this module.
- Downloads: 574,446

#### A Brighter Future

Apache Solr Search and Search API join forces for Drupal 8

## Apache Solr Search

- · Apache Solr Search https://www.drupal.org/project/apachesolr
- Apache Solr Attachments https://www.drupal.org/project/ apachesolr\_attachments
- Apache Solr Sort https://www.drupal.org/project/ apachesolr\_sort
- Apache Solr Autocomplete https://www.drupal.org/project/ apachesolr\_autocomplete
- Facet API <a href="https://www.drupal.org/project/facetapi">https://www.drupal.org/project/facetapi</a>

## Hooks

#### Apache Solr Hooks

- hook\_apachesolr\_process\_results This is invoked by apachesolr\_search.module for the whole resultset returned in a search.
- · hook\_apachesolr\_query\_alter Alter the query after it's prepared and cached.
- · hook\_apachesolr\_query\_prepare -Prepare the query by adding parameters, sorts, etc.
- hook\_apachesolr\_search\_page\_alter Modify the build array for any search output build by Apache Solr This
  includes core and custom pages and makes it very easy to modify both of them at once
- hook\_apachesolr\_search\_result\_alter This is invoked by apachesolr\_search.module for each document returned in a search. T
- · hook\_apachesolr\_search\_types\_alter Modify the search types as found in the search pages administration
- More @ http://www.drupalcontrib.org/api/drupal/contributions!apachesolr!apachesolr.api.php/7

## Simple Hook

```
function deathstar_custom_apachesolr_search_page_alter(array &$build, array $search_page) {
 // Adds a text to the top of the page
 $info = array('#markup' => t('Add information to every search page'));
 array_unshift($build, $info);
 foreach ($build['search_results']['#results'] as $key=>$result){
  $build['search_results']['#results'][$key]['snippet'] = str_replace('Fortune', 'Luck', $build['search_results']
['#results'][$key]['snippet']);
```

# Stuck?

## HELP!



- · Drupal Answers drupal.stackexchange.com
- Drupal Forums www.drupal.org/forum
- · This session useful links www.newtarget.com/solr

# Demonstration

Q8A