A NEW THEME LAYER FOR DRUPAL 8

Jen Lampton ~ @jenlampton
Nate Haug ~ @quicksketch

DRUPALCAMP SACRAMENTO

WHO ARE WE?

I AM
quicksketch
(Nate Haug)

work for Lullabot
working with Drupal since D4.6
contrib maintainer (webform, flag, more) since D4.7
wrote Using Drupal O'Reilly book (D6 version)

added image module & dragon drop into core

I AM
jenlampton
(Jen Lampton)

work for myself
working with Drupal (since D4.7)
conrib maintainer (youtube, more) since D5
training instructor (since D6)

made sure bunnies were still fuzzy in core

WHO ARE YOU?

YOU ARE:

Theme developers?
(D7? D6? D5?)

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Theme developers?
(D7? D6? D5?)

New to Drupal?
(just want to know what the heck is going on in D8)

YOU ARE:

Theme developers?
(D7? D6? D5?)

New to Drupal?
(just want to know what the heck is going on in D8)

Drupal Experts?
(also want to know what the heck is going on in D8)

DRUPAL 8 :
A NEW THEME LAYER

DRUPAL 8 :
A NEW THEME LAYER

(maybe)

WHY?

DRUPAL 7

(remember how some of you said that you had built themes for Drupal 7?)

DRUPAL 7: POSITIVE

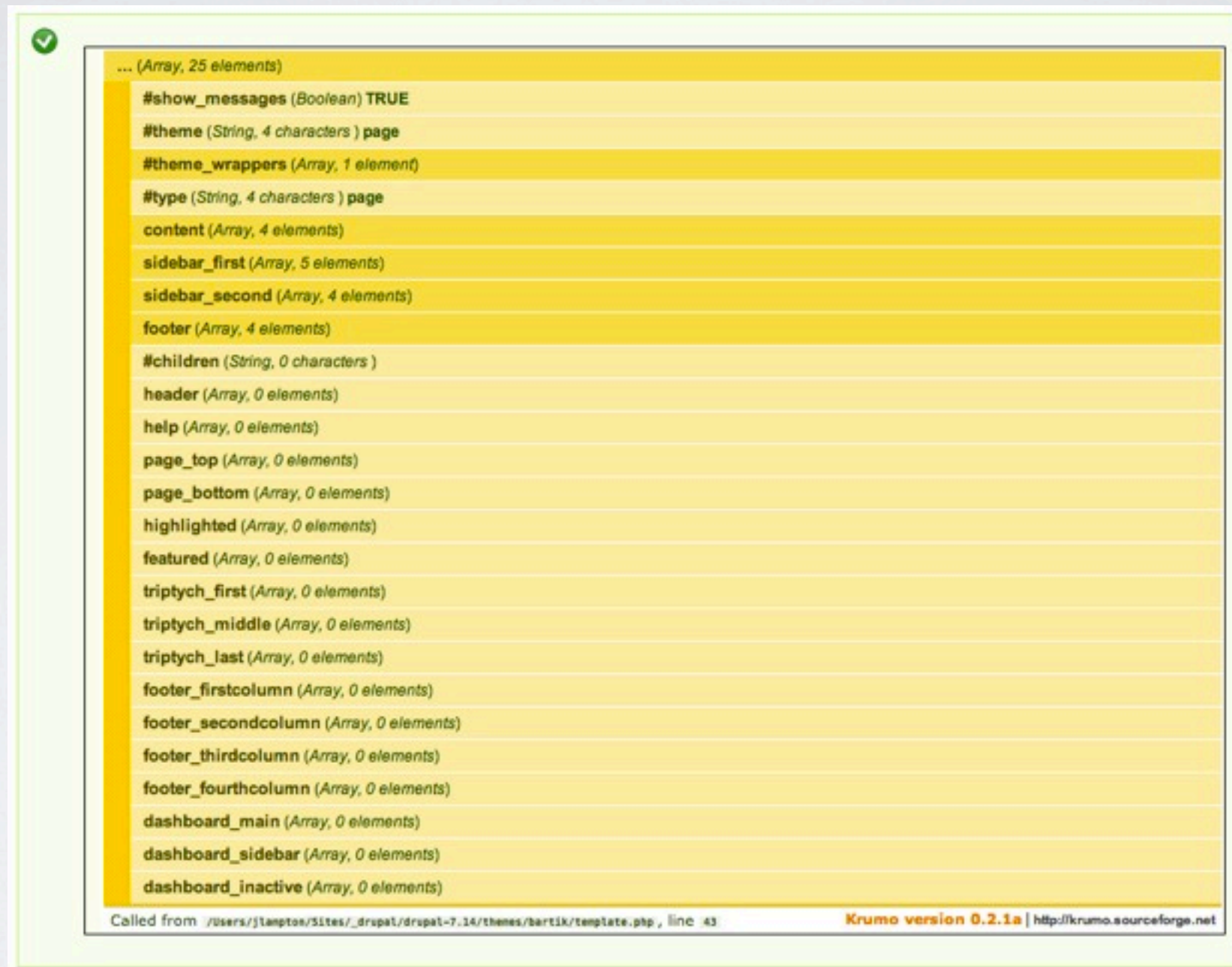# DRUPAL 7: POSITIVE

flexible

DRUPAL 7: POSITIVE

unified data structures everywhere

DRUPAL 7: POSITIVE
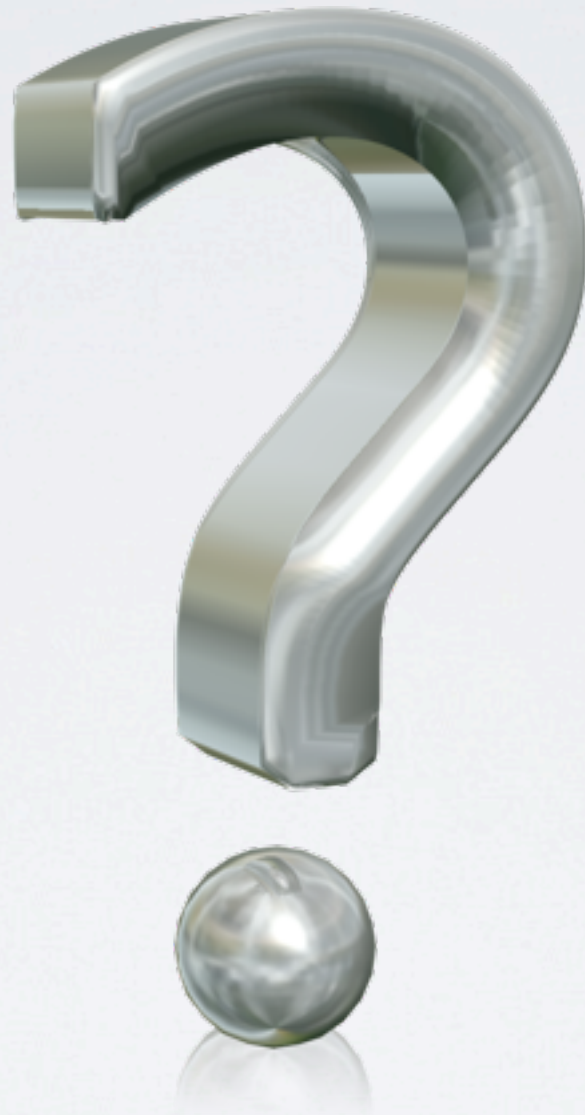
anyone?

DRUPAL 7: NEGATIVE

DRUPAL 7: NEGATIVE

```
?>
<div id="node-<?php print $node->nid; ?>" class="<?php print $classes; ?> clearfix"<?php print $attributes; ?>>

  <?php print render($title_prefix); ?>
  <?php if (!$page): ?>
    <h2<?php print $title_attributes; ?>>
      <a href="<?php print $node_url; ?>"><?php print $title; ?></a>
    </h2>
  <?php endif; ?>
  <?php print render($title_suffix); ?>

  <?php if ($display_submitted): ?>
    <div class="meta submitted">
      <?php print $user_picture; ?>
      <?php print $submitted; ?>
    </div>
  <?php endif; ?>
```

```
<?php if ($page['featured']): ?>
  <div id="featured"><div class="section clearfix">
    <?php print render($page['featured']); ?>
  </div></div> <!-- /.section, /#featured -->
<?php endif; ?>
```

Drupal only (weird) syntax

DRUPAL 7: NEGATIVE

Object or Array?

DRUPAL 7: NEGATIVE


```php
?>
<div id="node-<?php print $node->nid; ?>" class="<?php print $classes; ?> clearfix"<?php print $attributes; ?>>

  <?php print render($title_prefix); ?>
  <?php if (!$page): ?>
    <h2<?php print $title_attributes; ?>>
      <a href="<?php print $node_url; ?>"><?php print $title; ?></a>
    </h2>
  <?php endif; ?>
  <?php print render($title_suffix); ?>

  <?php if ($display_submitted): ?>
    <div class="meta submitted">
      <?php print $user_picture; ?>
      <?php print $submitted; ?>
    </div>
  <?php endif; ?>
```

```php
<?php if ($page['featured']): ?>
  <div id="featured"><div class="section clearfix">
    <?php print render($page['featured']); ?>
  </div></div> <!-- /.section, /#featured -->
<?php endif; ?>
```
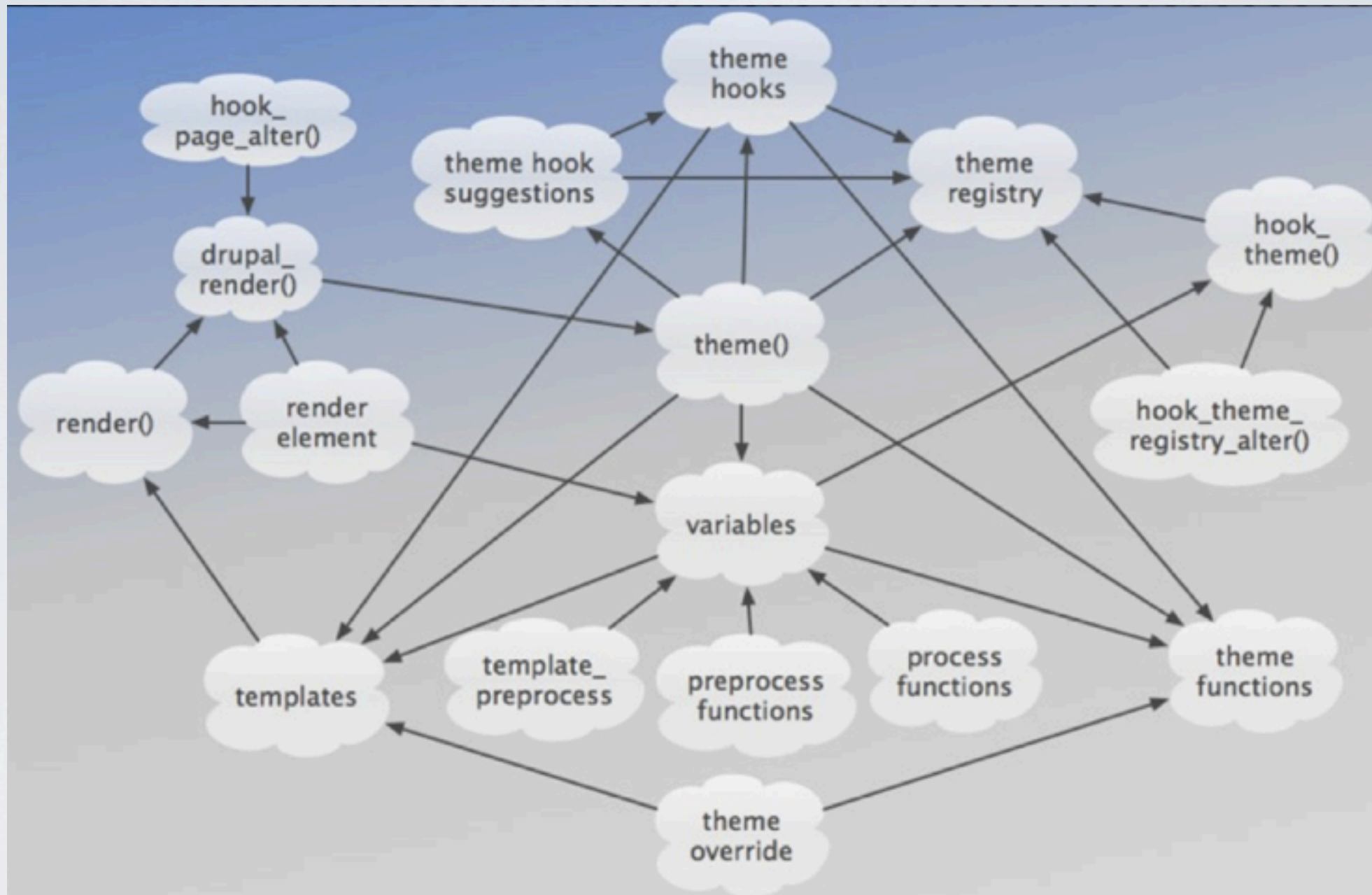
print or print render() ?

DRUPAL 7: NEGATIVE

complex mix of subsystems

DRUPAL 7: NEGATIVE


```php
<?php db_query("DROP TABLE {node}"); ?>
```

PHP is insecure

DRUPAL 7: NEGATIVE

```
> find . -name "*.tpl.php"
./aggregator/aggregator-feed-source.tpl.php
./aggregator/aggregator-item.tpl.php
./aggregator/aggregator-summary-item.tpl.php
./aggregator/aggregator-summary-items.tpl.php
./aggregator/aggregator-wrapper.tpl.php
./block/block-admin-display-form.tpl.php
./block/block.tpl.php
./block/tests/themes/block_test_theme/page.tpl.php
./book/book-all-books-block.tpl.php
./book/book-export-html.tpl.php
./book/book-navigation.tpl.php
./book/book-node-export-html.tpl.php
./comment/comment-wrapper.tpl.php
./comment/comment.tpl.php
./field/theme/field.tpl.php
./forum/forum-icon.tpl.php
./forum/forum-list.tpl.php
./forum/forum-submitted.tpl.php
./forum/forum-topic-list.tpl.php
./forum/forums.tpl.php
./node/node.tpl.php
./overlay/overlay.tpl.php
./poll/poll-bar--block.tpl.php
./poll/poll-bar.tpl.php
./poll/poll-results--block.tpl.php
./poll/poll-results.tpl.php
./poll/poll-vote.tpl.php
./profile/profile-block.tpl.php
./profile/profile-listing.tpl.php
./profile/profile-wrapper.tpl.php
./search/search-block-form.tpl.php
./search/search-result.tpl.php
./search/search-results.tpl.php
./simpletest/tests/theme_test.template_test.tpl.php
./system/html.tpl.php
./system/maintenance-page.tpl.php
./system/page.tpl.php
./system/region.tpl.php
./taxonomy/taxonomy-term.tpl.php
./toolbar/toolbar.tpl.php
./user/user-picture.tpl.php
./user/user-profile-category.tpl.php
./user/user-profile-item.tpl.php
./user/user-profile.tpl.php
```

Too many template files

DRUPAL 7: NEGATIVE

prone to bugs

DRUPAL 7: NEGATIVE

Drupal 7 is too hard to learn!

DRUPAL 8

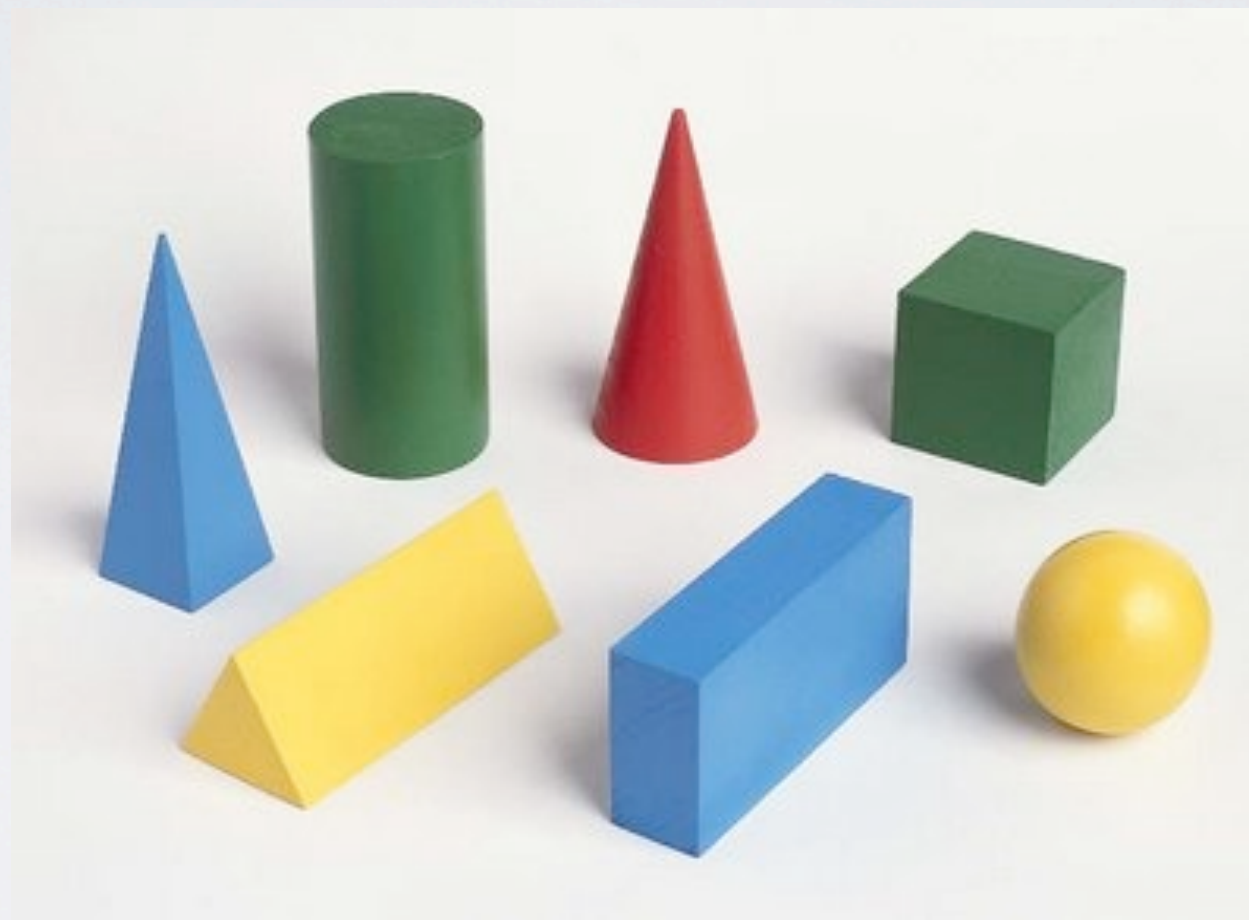what do we want?

DRUPAL 8

what do we want?

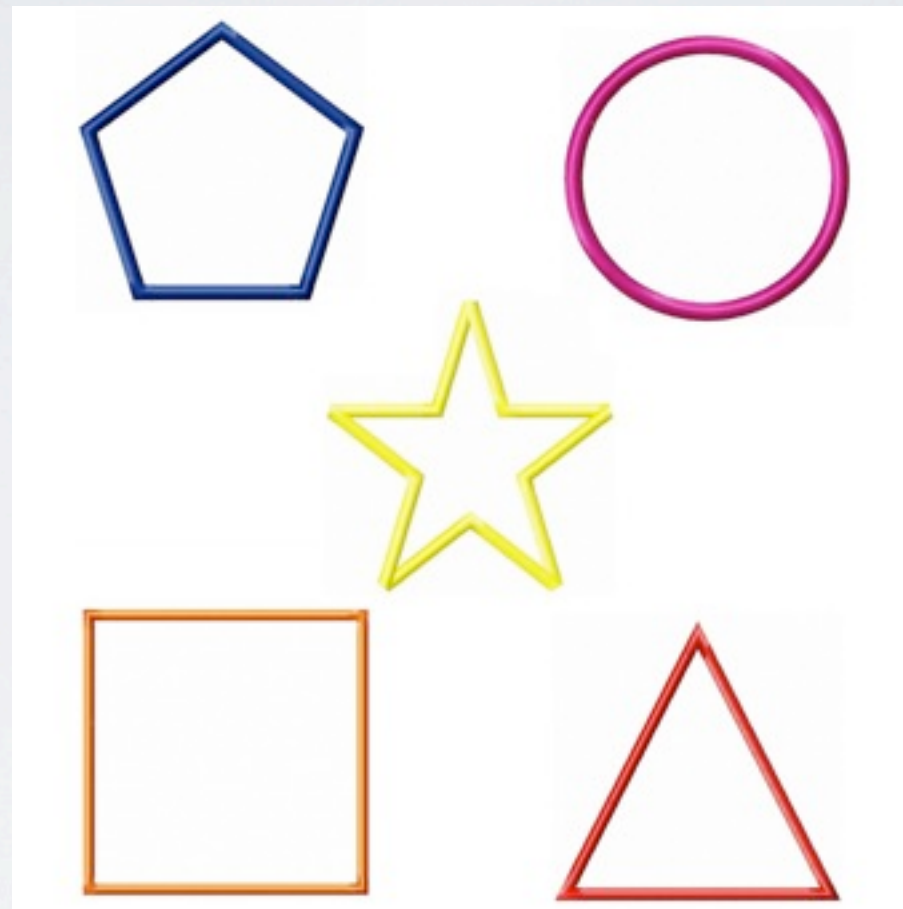Something proudly found elsewhere

DRUPAL 8

what do we want?

Objects

DRUPAL 8

what do we want?

Objects
(but not in the templates)

DRUPAL 8
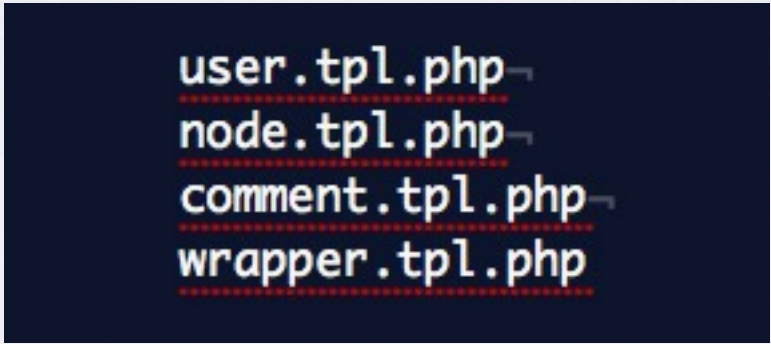
what do we want?

Secure

DRUPAL 8

what do we want?

The right templates

DRUPAL 8

what do we want?

Consistency

TWIG
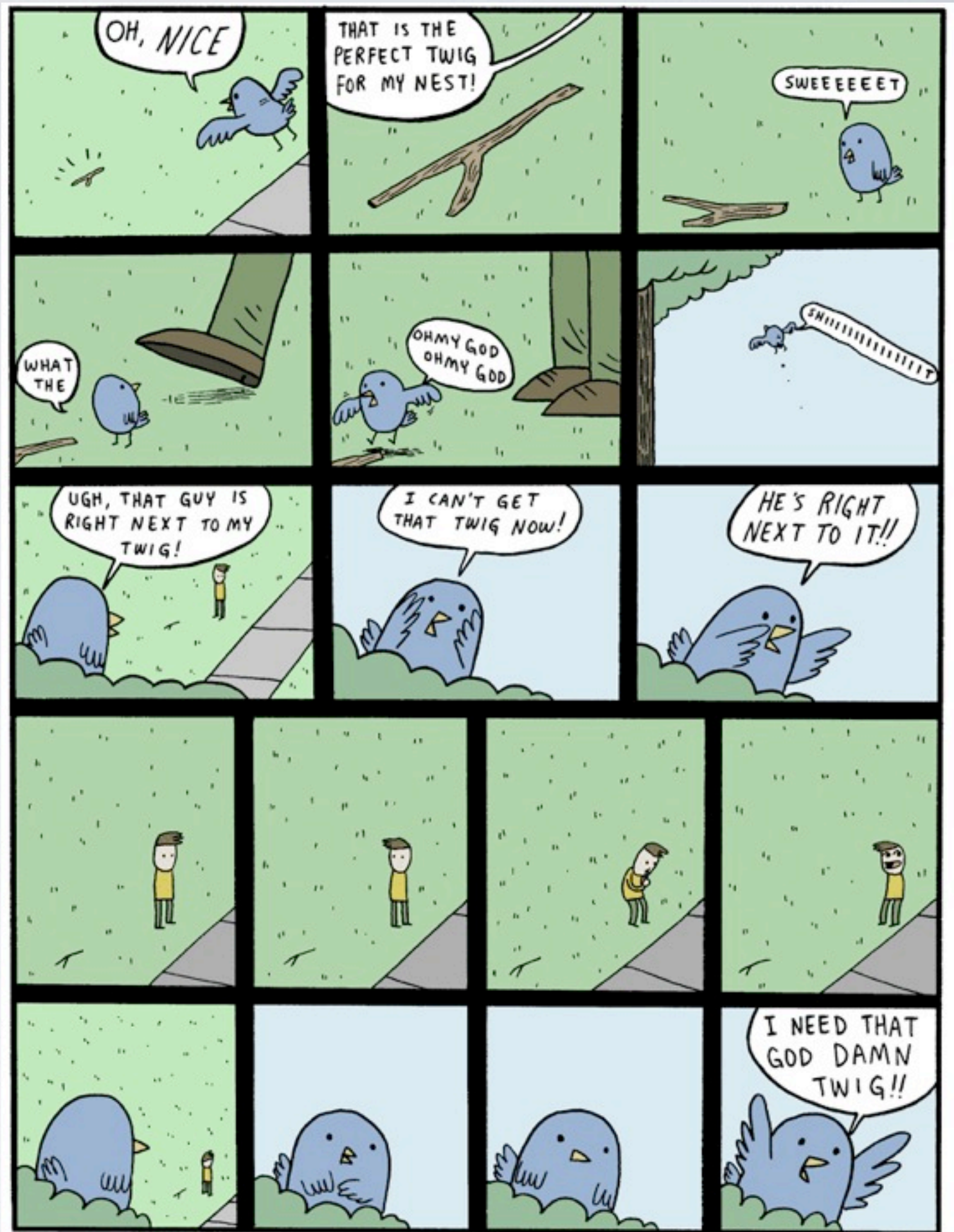
TWIG

A modern template engine for PHP.

http://twig.sensiolabs.org

TWIG

what's so great about it?

- well documented
- extensible
- secure
- well tested
- IDE integration
- recognizable syntax
  - Python (django)
  - JS (TwigJS)
  - Ruby (Liquid)
- by Symfony's author, Fabien Potencier

TWIG

what does it look like?

```
{% if items %}
  <{{ type }} class="{{ items.attributes.class }}" {{ items.attributes }}>
  {% for item in items %}
    <li class="{{ item.attributes.class }} {{ item.attributes }}>
      {{- item -}}
    </li>
  {% endfor %}
  </{{ type }}>
{% endif %}
```

TWIG

what does it look like?

```
{% if items %}
  <{{ type }} class="{{ items.attributes.class }}" {{ items.attributes }}>
  {% for item in items %}
    <li class="{{ item.attributes.class }} {{ item.attributes }}>
      {{- item -}}
    </li>
  {% endfor %}
  </{{ type }}>
{% endif %}
```

print with {{ }}

TWIG

what does it look like?

commands with {% %}

TWIG

what does it look like?

```
{% if items %}
 <{{ type }} class="{{ items.attributes.class }}" {{ items.attributes }}>
  {% for item in items %}
    <li class="{{ item.attributes.class }} {{ item.attributes }}>
      {{- item -}}
    </li>
  {% endfor %}  {# end for loop #}
 </{{ type }}>
{% endif %}
```

comments with {# #}

TWIG

what does it look like?

```twig
{% if items %}
  <{{ type }} class="{{ items.attributes.class }}" {{ items.attributes }}>
  {% for item in items %}
    <li class="{{ item.attributes.class }} {{ item.attributes }}>
      {{- item -}}
    </li>
  {% endfor %}
  </{{ type }}>
{% endif %}
```

simple and intuitive

INTERLUDE:

attributes

attributes are messy

INTERLUDE:

attributes

HTML5 attribute types:

String

```
<div class="item-list"></div>
```

Boolean

```
<input type="checkbox" checked />
```

Enumerated

```
<div id="box" contenteditable="true" ></div>
```

attributes are messy

INTERLUDE:

attributes

We need attributes to be "drillable"

attributes
or
attributes.class
or
attributes.id

INTERLUDE:

attributes

PHP5 to the rescue!

ArrayAccess
allows objects to be treated as arrays

__toString
allows "flattening" of arrays or objects into HTML strings

INTERLUDE:

attributes

but, this has nothing to do with TWIG.

so

let's do it now:
http://drupal.org/node/1290694

TWIG

how would it work?

D7

```
function theme_username($variables) {
  if (isset($variables['link_path'])) {
    $output = l($variables['name'] . $variables['extra'], $variables['link_path'], $variables['link_options']);
  }
  else {
    $output = '<span' . drupal_attributes($variables['attributes_array']) . '>' . $variables['name'] . $variables['extra'] . '</span>';
  }
  return $output;
}
```

D8

```
{% if link %}
  <a href="{{ link.path }}" {{ link.attributes }}>{{ name }} {{- extra }}</a>
{% else %}
  <span {{ attributes }}>{{ name }} {{- extra }}</span>
{% endif %}
```

all theme functions become template files.
a single way to override markup!

TWIG

how would it work?

D7

```
'comment' => array(
  'template' => 'comment',
  'render element' => 'elements',
),
```
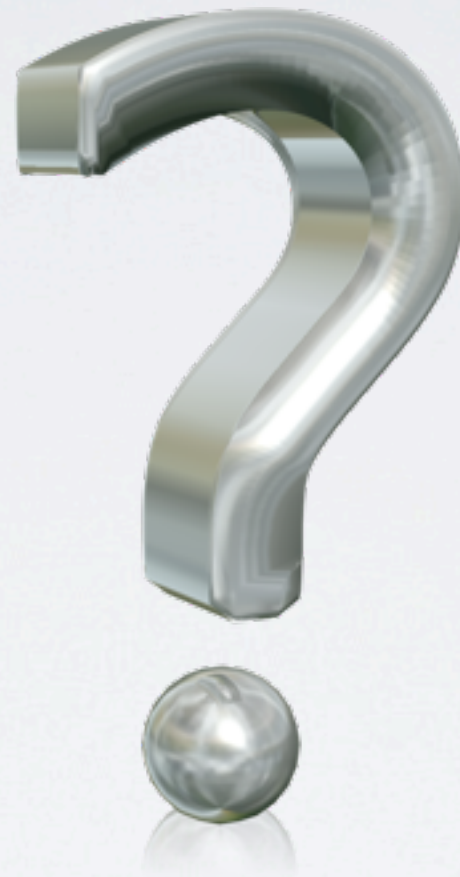
D8

```
'comment' => array(
  'template' => 'comment',
  'variables' => array(
    'title' => NULL,
    'attributes' => array(),
    'content' => NULL,
  ),
),
```

more like Drupal 6!

TWIG

how would it work?

there's a lot we still don't know.
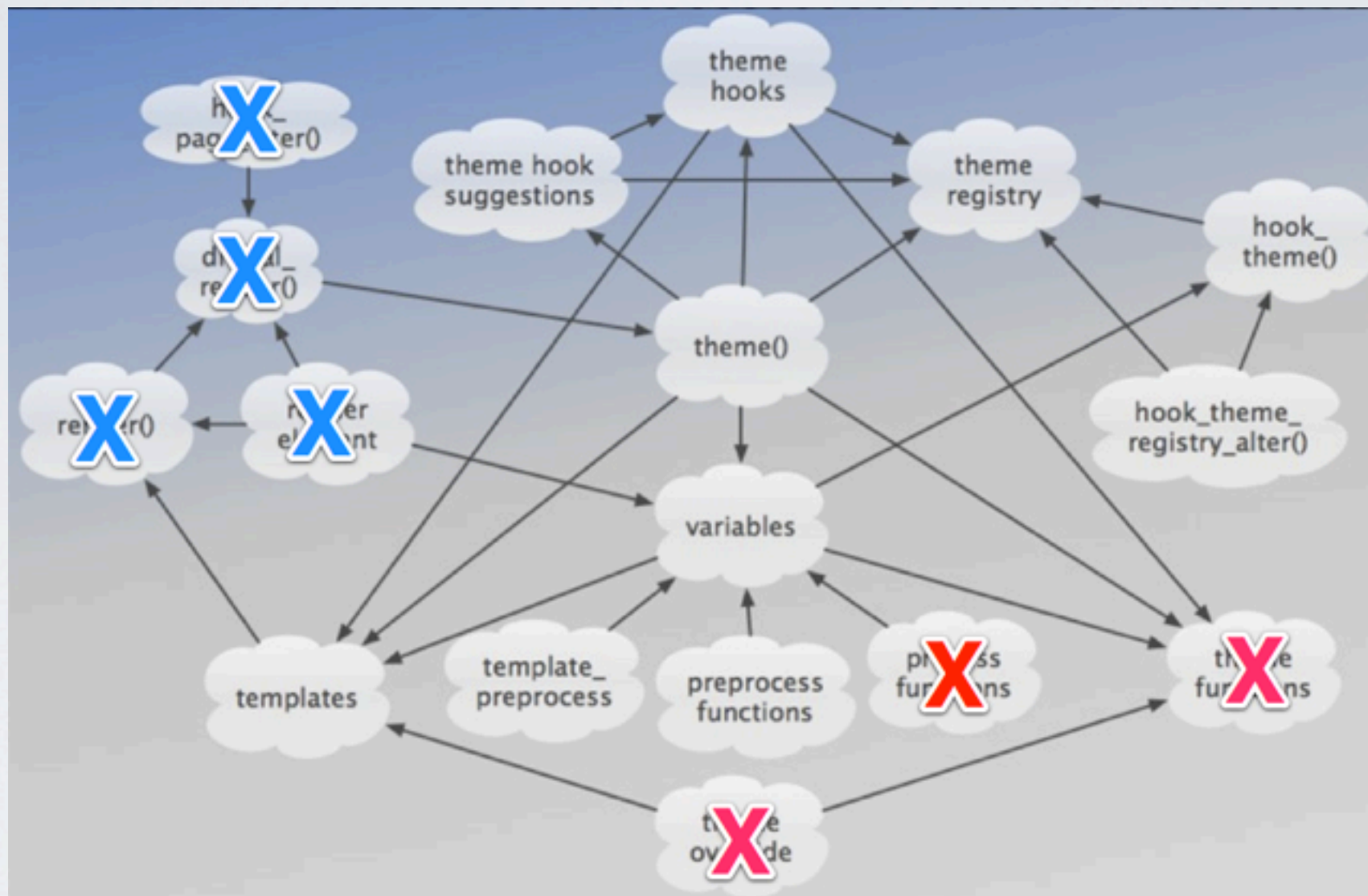
TWIG

why is this good?

remember the complexity of Drupal 7?

TWIG

why is this good?

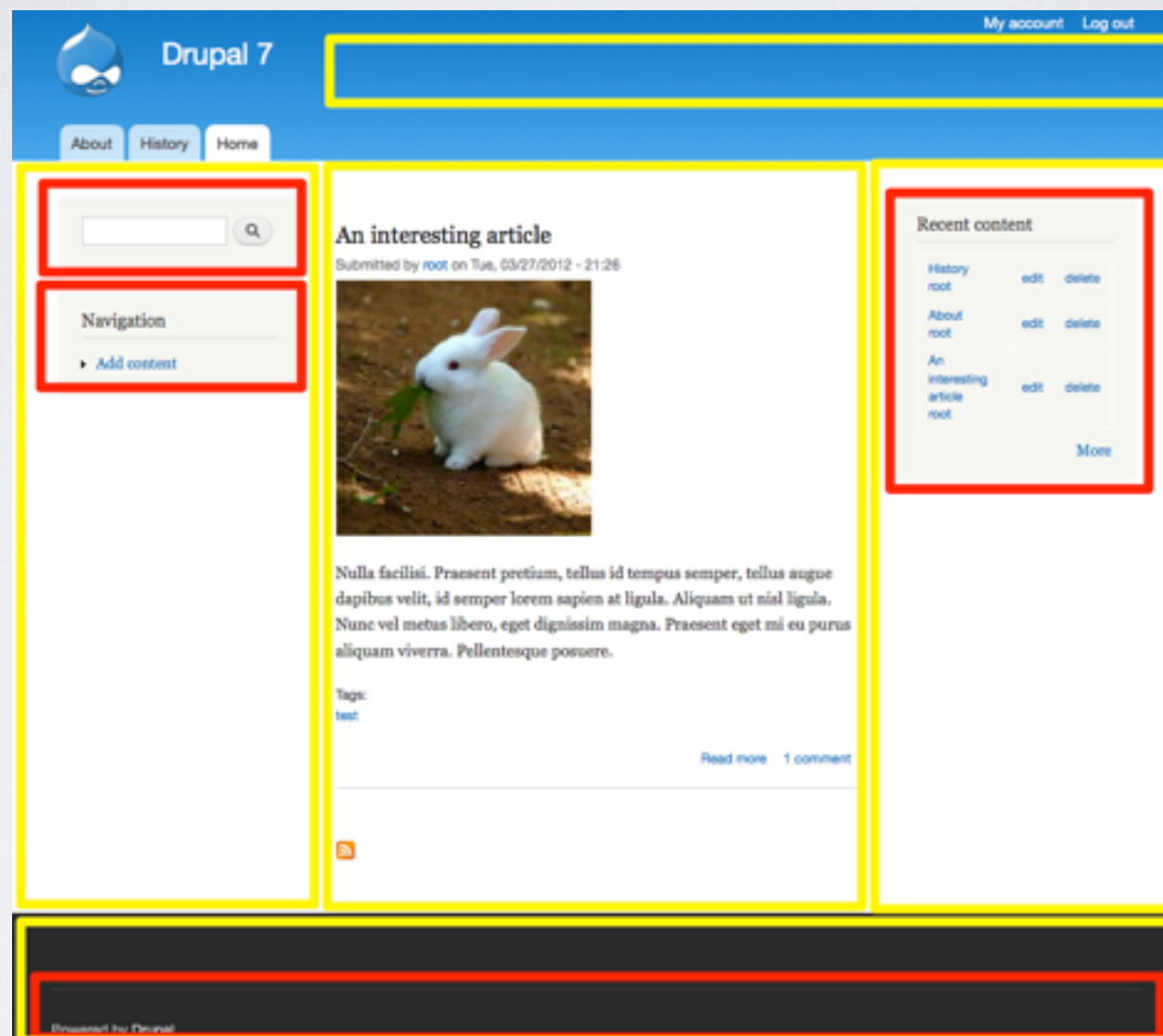look what would happen in Drupal 8.

TWIG

where does this fit in with SCOTCH?

The "Blocks everywhere" initiative complicates things

TWIG

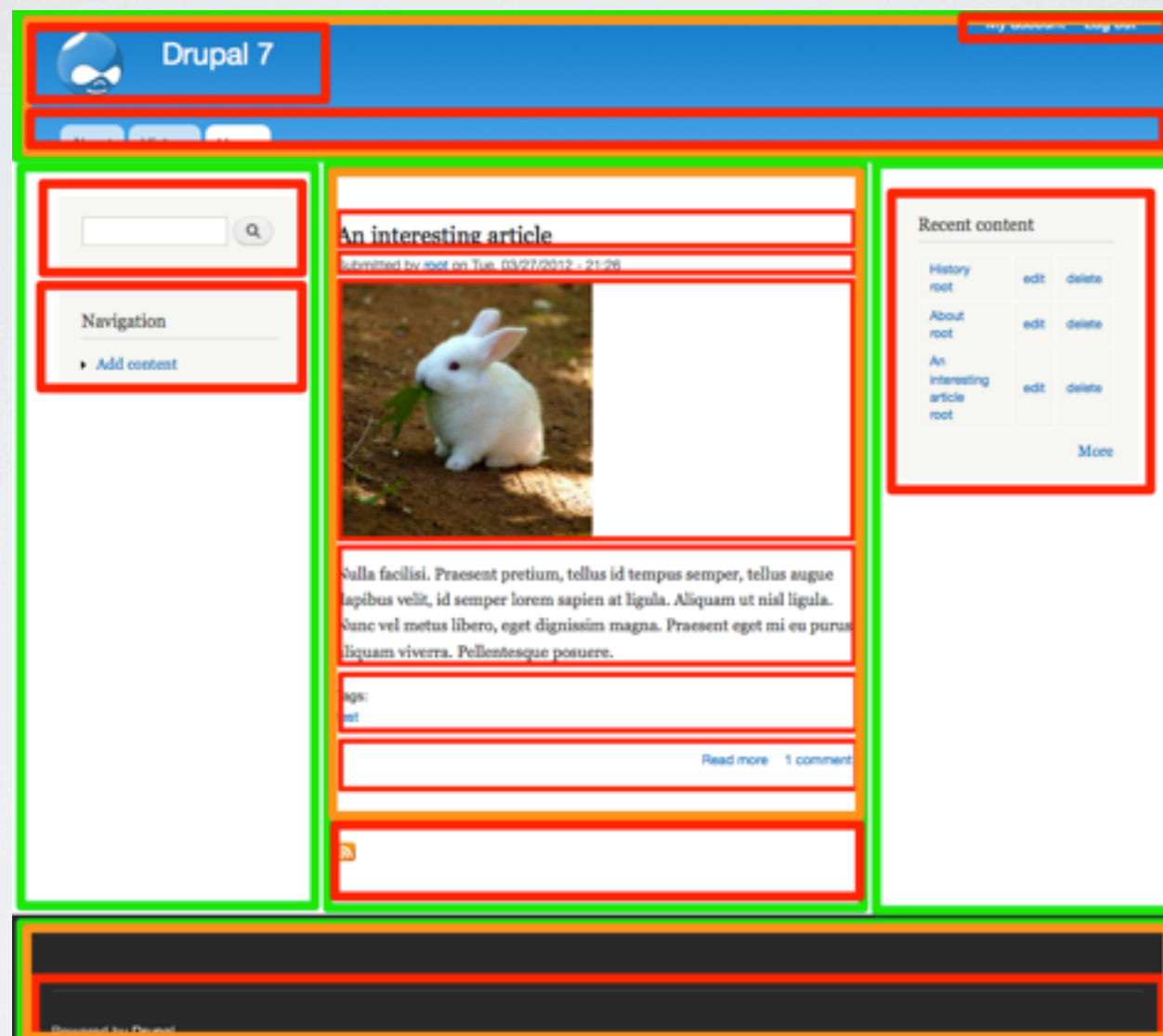where does this fit in with SCOTCH?

Blocks in D7 (in red)

TWIG

where does this fit in with SCOTCH?

Blocks in D8 (in red)

TWIG

while we're at it...

PHPTemplate	Twig template	Status
page.tpl.php	–	layouts provided by Sctotch
region.tpl.php	–	eliminated in favor of wrapper.twig
block.tpl.php	block.twig	same as wrapper.twig, but uses 'aside' HTML5 tag
node.tpl.php	node.twig	same as wrapper.twig, but uses 'article' HTML5 tag
comment.tpl.php	comment.twig	same as node.twig, here for ease of learning?
comment-wrapper.tpl.php	–	eliminated in favor of wrapper.twig
field.tpl.php	–	eliminated in favor of item_list.twig
forums.tpl.php	–	eliminated in favor of wrapper.twig
search-results.tpl.php	–	eliminated in favor of wrapper.twig, and item_list.twig
search-result.tpl.php	–	eliminated in favor of wrapper.twig

...let's clean up the template files!

TWIG

"Learnability"

- Easier to learn than PHP
- Consistent
- Secure

TWIG

TWIG will make Drupal easier to learn!

DISCUSS!

A NEW THEME LAYER FOR DRUPAL 8

@jenlampton | http://www.jenlampton.com

@quicksketch | http://www.quicksketch.org

photo credits:

lolcat-wut:
http://www.funnyjunk.com/funny_pictures/1152056/Dude/

lolcat-flexible
http://icanhascheezburger.com/2008/10/24/funny-pictures-fexlibility-i-haz-it/

lolcat questionmark
http://icanhascheezburger.com/2007/10/31/11197/

questionmark
http://fr.wikipedia.org/wiki/Fichier:Question_mark_3d.png

wheel-reinvented
http://www.brainwads.net/drewhawkins/2012/01/dont-re-invent-the-wheel-make-something-better/

objects
http://2teachers1classroom.blogspot.com/2009_02_01_archive.html

shapes
http://englishclass.jp/reading/topic/For_Screening_Purposes_Only

secure
http://blog.stratepedia.org/2010/06/03/what-is-a-secure-site/

consistency
http://icsigns.org/press/2010/03/23/consistency-staying-on-the-mark/

twig bird comic
http://s302.photobucket.com/albums/nn105/walkseva/?action=view&current=thebirdneedsthattwig.gif&currenttag=bird%20park%20twig%20comic%20need%20it

scotch
http://www.thespir.it/articles/scotch-101/?viewall=1

twig
http://galletly.blogspot.com/2009/10/twig.html