

Auditing your site for accessibility: now what?

Caveats

1: Identify

PyOhio

July 29-30, 2017



SAVE THE DATE!:

PyOhio 2018 is July 28 & 29 at The Ohio Union in Columbus, OH.

Come be a part of the *10th Annual PyOhio!*

A *FREE* annual conference at the Ohio Union in Columbus, Ohio for Python programmers in and around Ohio, the entire Midwest, maybe even the whole world.

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2016 > 2015 > 2014 > 2013 > 2012 > 2011 >

2010 >

PyOhio 2018

The FREE Annual Python Conference in Ohio

PyOhio 2018 is July 28-29, 2018

at [The Ohio Union](#) in Columbus, OH

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- [Events Overview](#)
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1: Identify

Quick and easy method -
browser extensions

- WAVE
- aXe
- Lighthouse

Automation can only catch
about $1/3$ of potential
accessibility issues

2: Verify

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What kinds of manual tests can we do?

- Keyboard
- Screen reader

2: Verify

What kinds of manual tests can we do?

- Keyboard
- Screen reader
- Browser zoom
- Touch devices

3: Plan

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Many small changes? Organize
by page or flow

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Many small changes? Organize
by page or flow

Many large changes?
Incremental updates (long-term
feature branch)

3: Plan

Set goals per release

- Percentage or numeric value of defects closed
- No regressions in a particular area
- 1+ new thing learned per feature



EXPLORER

- PYOHIO-WEBSITE
 - .vscode
 - archive
 - copy
 - fixtures
 - gulp
 - pinaxcon
 - proposals
 - registrasion
 - site_media
 - templates
 - registrasion
 - static_pages
 - symposion
 - schedule
 - sponsorship
 - base.html
 - wiki
 - _account_bar.html
 - _default_sidebar.html

OUTLINE

site_base_onecolumn.html

```
1 {% extends "site_base.html" %}
2
3
4 {% block body_base %}
5     <section id="content_body">
6         <div class="container">
7             {% include "_messages.html" %}
8             {% block body %}
9             {% endblock %}
10        </div>
11    </section>
12 {% endblock %}
13
```



```
1  $(document).ready(function() { ...
39  });
40
41  function handleHomeAlert() { ...
48  }
49
50  function handleResultNotificationElements() { ...
61  }
62
63  /* ...
69  |
70  function handleLoginErrors() { ...
84  }
85
86  function handleSignupErrors() { ...
118  }
119
120  function handleCommonTalkDataForm() { ...
155  }
156
157  function handleAddSpeakerForm() { ...
173  }
174
175  function handleSponsorErrors() { ...
201  }
202
```

```
41  ▫ function handleHomeAlert() {
42      ... // Notification for confirmation email sent
43
44      ... var banner = $('div.alert');
45  ▫      ... if(banner.length) {
46          ... | ... banner.attr('role', 'alert');
47          ... | ... }
48      ... }
49
```

```

86  function handleSignupErrors() {
87      var globalError = $('div.alert');
88      var formItems = $('div.form-group');
89
90      // This form is complicated:
91      // * Can have global error
92      // * Can have inline error
93      // * Global doesn't tie direct to input
94      // User potentially has to error twice to hear both.
95  if(globalError.length) {
96      globalError.attr('role', 'alert');
97  }
98
99  if(formItems.length) {
100  formItems.each(function(index) {
101      if($('formItems[index]').hasClass('has-error')) {
102          var errorMessage = $('formItems[index]').find('span.help-block');
103          var errorInput = errorMessage.prev();
104
105          errorInput.attr('aria-invalid', 'true');
106          errorInput.attr('aria-describedby', errorInput.attr('id') + '-error');
107          errorMessage.attr('id', errorInput.attr('id') + '-error');
108          errorMessage.attr('role', 'alert');
109      }
110  });
111  }
112
113  if($('input[aria-invalid]').length) {
114      // Use native focus
115      // Won't work right until reconciled w/ pinax-theme-bootstrap
116      document.querySelector('input[aria-invalid]').focus();
117  }
118  }

```

```

86 # function handleSignupErrors
87   --- globalError = $('div.alert');
88   --- formItems = $('div.form-group');
89
90   --- // This form is complicated:
91   --- // * Can have global error
92   --- // * Can have inline error
93   --- // * Global doesn't tie direct to input
94   --- // User potentially has to error twice to hear both.
95 # --- if(globalError.length) {
96   --- globalError.attr('role', 'alert');
97   --- }
98
99 # --- if(formItems.length) {
100 # ---   formItems.each(function(index) {
101 # ---     --- if($('formItems index').hasClass('has-error')) {
102 # ---       --- errorMessage = $('formItems index').find('span.help-block');
103 # ---       --- errorInput = errorMessage.prev();
104 # ---
105 # ---       errorInput.attr('aria-invalid', 'true');
106 # ---       errorInput.attr('aria-describedby', errorInput.attr('id') + '-error');
107 # ---       errorMessage.attr('id', errorInput.attr('id') + '-error');
108 # ---       errorMessage.attr('role', 'alert');
109 # ---     }
110 # ---   }
111 # --- }
112
113 # --- if($('input[aria-invalid]').length) {
114 # ---   --- // Use native focus
115 # ---   --- // Won't work right until reconciled w/ pinax-theme-bootstrap
116 # ---   --- document.querySelector('input[aria-invalid]').focus();
117 # --- }
118

```



```

120  function handleCommonTalkDataForm() {
121      var formItems = $('div.form-group');
122      formItems.each(function(index) {
123          var helpText = $(formItems[index]).find('p.help-block');
124          if($(formItems[index]).hasClass('has-error')) {
125              // Errors may have multiple "help" blocks
126
127              var errorMessage = helpText.prev();
128              var errorInput = errorMessage.prev();
129              var errorID = errorInput.attr('id') + '-error';
130              var helpID = errorInput.attr('id') + '-help';
131
132              errorInput.attr('aria-invalid', 'true');
133              errorInput.attr('aria-describedby', errorID + ' ' + helpID);
134              helpText.attr('id', helpID);
135              errorMessage.attr('id', errorID);
136              errorMessage.attr('role', 'alert');
137          }
138          else {
139              // Handle help text
140
141              if(helpText) {
142                  var prev = helpText.prev();
143
144                  // Set up describedby relationship
145                  helpText.attr('id', prev.attr('id') + '-help');
146                  prev.attr('aria-describedby', helpText.attr('id'));
147              }
148          }
149      });
150
151      if($('input[aria-invalid]').length) {
152          // Use native focus
153          document.querySelector('input[aria-invalid]').focus();
154      }
155  }

```



4: Due diligence

4: Due Diligence

- Keep fixing
- Keep testing
- Future proofing

4: Due Diligence

Pa11y

<http://pa11y.org>

Resources

WAVE

<https://wave.webaim.org/about>

Resources

aXe

<https://www.deque.com/axe/>

Resources

Lighthouse

<https://developers.google.com/web/tools/lighthouse/>

Resources

Pa11y

<http://pa11y.org>

