Developing Accessible Blaise Surveys

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Accessibility and Universal Design
Are Your Users Disabled?
Accessibility in Blaise
Techniques Example
References
Accessibility Recap

▶ Section 508 Refresh – Jan. 2017

> Amendment to Rehabilitation Act of 1973 (Civil Rights Law)

> U.S. Standard

▶ WCAG 2.0 – Dec. 2008

WCAG 2.1 - June 2018: relates to mobile devices and users with low vision. Currently not required but recommended.
Universal Design

Accessibility + Usability
Aunt Rose's Homemade Cupcakes

Aunt Rose's focuses on providing healthy, all natural pastries and baked goods to our customers. Our European inspired bakery product line fits nicely with the health trends of the community. Our baked products includes organic and some flourless delights.

Come by and "Taste the Difference!"

Some of our most popular offerings:

- Croissant: $3.50 each, $32.50/ dozens
- Madeleine: $2.25 each, $22.50/ dozens
- Macaron: $2.25 each, $22.50/ dozens

- Available in the morning
- Available in the afternoon
Blaise Survey out of the box

Aunt Rose's Cupcakes Survey

Which of our pastries have you tried? (Choose all that apply.)
- [ ] Croissant
- [ ] Madeleine
- [ ] Macaron

Which pastry do you like the most? (Choose one.)
- [ ] Croissant
- [ ] Madeleine
- [ ] Macaron
- [ ] Some other pastry [______________________]

Please describe products that you would like Aunt Rose's to carry. (Optional)

[ ]
Who has a Disability?

Everyone!

Me too?
Accessibility/Universal Design

- Provide an equivalent experience to the widest possible audience

- Disabilities: physical, cognitive, hearing, vision
- Low literacy, slow reader, or not fluent in the language
- Aging or non-tech savvy
- Old technology, low bandwidth, or multiple devices
- Anxiety or depression and easily frustrated
- Prone to dizziness or vertigo

And if you don’t have any of these ...
Temporary/Situational

- You get sand in your eyes at the beach and can’t wear your contacts until the scratches heal (enlarged text)
- Oops! My mouse stopped working (keyboard navigation)
- You get an ear infection and can’t hear well out of either ear for a week (closed captioning)
- You break your arm playing hockey (keyboard navigation)
- Your doctor dilates your eyes during a routine exam and you’re extremely light sensitive (color contrast and brightness options)
- The back legs of your chair slip off your friend’s patio and you crack your wrist in her yard (keyboard navigation)
Development Environment

Blaise 5

How To Start Interview

Start Parallel:

Go to End
Login Required
Use CATI

When To Show Special Answers

Hide Special Answers the first time a respondent enters a page
Hide Special Answers for fields with response

Audit Trail Level

None

Culture Source

Client
Datamodel Language

Accessibility options

- Use accessibility optimization
- Disable Auto Focus
- Use Skip Links
Accessibility
The default font size of the Data model Text has been increased and the color contrast ratio has been improved.

Added several properties to controls to improve accessibility:
• AccessibilityRole. The AccessibilityRole property can be used to identify sections of a page (landmarks).
• LabelFor. The LabelFor property can be used to explicitly associate the label to a form control.
  • LabelledBy. The LabelledBy property can show an associated label.

To fine tune the text of error messages, a number of properties have been added:
• AnswerRequiredRoleName. With the AnswerRequiredRoleName property you can decide which control's Text Role you want
to use as an error text.
• AnswerRequiredText. The AnswerRequiredText property allows you to provide literal text that is displayed as soon as an
answer is required.
• AnswerRequiredTextKey. The AnswerRequiredTextKey property allows you to provide a user-defined translatable Text.
• AnswerRequiredTextSource. With the AnswerRequiredTextSource property you can decide whether there should be a answer
required error text and if so, which bound element should be its source.
Blaise Programming Example

LabelFor:

Labelledby:
Would you like to have an aisle seat next time?

- Yes, please I would like to have an aisle seat next time.
- No, thank you I do not want an aisle seat next time.

```html
<input name="Flight.FirstClass" tabindex="0" class="CategoryRadioButtonComponent visibility-visible enabled focus-outline width-pixels height-pixels" id="aga_1ca_2gaba_1e" role="radio" aria-checked="false" aria-hidden="false" aria-invalid="false" aria-required="true" aria-labelledby="aga_1ca_2gaba_1h" aria-live="assertive" style="margin: 3px; width: 16px; height: 16px; visibility: visible;" aria-label="Would you like to have an aisle seat next time? Yes, please I would like to have an aisle seat next time." type="radio" data-fieldname="Flight.FirstClass" />
```
Note: ARIA Roles and Attributes

Not every combination of ARIA roles and attributes is allowed

Failed testing- **Elements must only use allowed ARIA attributes**
Note: Not all ARIA role-attribute combinations are valid. This Rule checks that each role is supplied with allowed attributes.
WCAG Success Criteria: 4.1.1 Parsing, 4.1.2 Name, Role, Value
http://www.w3.org/WAI/WCAG21/quickref/?versions=2.0#principle4

ARIA attribute is not allowed: aria-required="true"  
role="alert" aria-required="true"

For example, setting aria-required to true for an alert widget, which is an output-only element -- requiring input or selection by a user doesn’t make sense and fails testing.
Aunt Rose's Cupcakes Survey

On what date did you last visit Aunt Rose's Cupcakes?

At what time did you last visit Aunt Rose's Cupcakes?

Preferred Visit Time

At what general time of day do you like to shop at Aunt Rose's Cupcakes?

Please rate your level of satisfaction for these services.

<table>
<thead>
<tr>
<th>Service</th>
<th>Very dissatisfied</th>
<th>Somewhat dissatisfied</th>
<th>Neither dissatisfied nor satisfied</th>
<th>Somewhat satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greeted on entering store</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order taken quickly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order filled correctly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References

- https://www.w3.org/WAI/WCAG21/quickref/
- Section508.gov
- Accessibility Resources for Developer and Authors: https://section508.gov/refresh-toolkit/accessibility-resources-for-developers-and-authors
- Accessibility Webinars (DeQue): https://www.deque.com/news-resources/accessibility-webinars:
  > Introduction to Screen Readers and How persons with disabilities use the Web
  > Designing for Accessibility and Inclusion
- Examples of different AT: https://accessibility.umn.edu/adaptive-technologies-u/demonstration-adaptive-technologies