Publisher Accessibility Checklist for MediaWiki / Wikipedia

Text content

When dealing with text content it is important to explicitly tag the sematic structure elements in HTML. Headings must be tagged as headings <hx>, paragraphs as paragraphs <p>, listings as lists etc. Especially blind people are reliant on any semantic structure that is visually perceivable to be discernible from the HTML code. Visual accentuations comprise font changes, font size, underlining, numbering, colouring, increased spacing as wells special positioning of content, e.g. info boxes.

Assistive technologies interpret empty <p>-elements as empty paragraphs. As such they carry semantic meaning. Only for visual users this semantic meaning is not perceivable. It is present though for all kinds of reading machines such as search engine bots and screenreaders. HTML is not designed for visual design but for semantic structuring of contents.

Checklist

☐ Headings are tagged using the heading element h

☐ No heading levels are skipped

☐ Bold tagging <strong> is only used to accent segments inline in a running text

☐ Paragraphs are marked up using <p>

☐ There are no empty paragraphs <p> to create space in the layout

MediaWiki Syntax

Heading Structure

Headings are marked up in MediaWiki editor as follows:

Html Syntax	MediaWiki Syntax
Heading (level 1)	• Page names, e.g. "Heading (level 1)" are displayed as H1 headings • = Heading (level 1) = also makes a heading of level 1. Don't use, see below: • Recommendation: Start content heading levels with heading level 2 (== Heading (level 2)==). All content is part of the subject introduced by the page name (heading level 1) and is semantically subsumed.
Heading (level 2)	• == Heading (level 2) == • Recommendation: Start content heading levels with heading level 2 (== Heading (level 2)==). All content is part of the subject introduced by the page name (heading level 1) and is semantically subsumed.
Heading (level 3) …	• === Heading (level 3) ===

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Paragraphs

Paragraphs are automatically created by MediaWiki by blank lines in the MediaWiki editor.

- In order structure content in paragraphs they must be seprated by blank lines.

- Never separate paragraphs by more than one blank line. This creates empty semantically false paragraphs in the output.

Alternatives for graphic contents

It is of utter importance that information bearing graphical content is communicated explicitly as text. Blind and visually impaired people command of no alternative chance to perceive this information.

In the case of linked graphical elements, the alt-attributes must contain information on the link purpose. This is equally true for hyperlinks as well as for interactive functions. Often the link purpose is accordant to the graphical information. If not, the link purpose has priority. Format changes must be mentioned, e.g. "PriceList.pdf (PDF, 3MB)".

(Decoration) graphics that do not command of any alt-attributes are announced by screenreaders by their respective image paths. Only images with explicitly empty alt-attributes alt=" " are ignored by screenreaders as desirable. Generally separation lines, special bullet symbols in lists, symbols preceding link texts such as tiny PDF icons but also atmospheric pictures can be considered as decoration graphics.

Checklist

- ☐ Informative images and graphics have a meaningful and equivalent alternative text.

- ☐ Linked graphics have an alternative text, which indicates the link purpose and a possible change in format (e.g. PDF download)

- ☐ Decorative graphics have empty alt attributes

- ☐ Diagrams and comprehensive info graphics such as organigrams or maps are described by a commentarial text before or after the graphic or on a separate page.

- ☐ Graphics have an adequate contrast ratio

MediaWiki Syntax

Graphics type	MediaWiki graphics syntax examples:
Informative graphics	`[[File:example.jpg|alt=An example image]]`
Linked graphics	`[[File:example.jpg|`**`link=Main page`**`|alt=Main page]]` `[[File:example.jpg|`**`link=http://wikipedia.org/wiki/Test`**`|` `alt=Wikipedia on "Test"]]`
Decorative graphics	`[[File:DecoExample.jpg|alt=]]`

More on MediaWiki syntax of images: https://www.mediawiki.org/wiki/Help:Images

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Tables

Tables are always challenging regarding their accessible implementation. Nevertheless, if they are implemented in a semantically correct way, they're well readable with screenreaders.

Tables should be used for displaying tabular data only. Layout tables are, also in regard to accessibility, **deprecated**. For tabular designs purposes use CSS exclusively. True tabular content/data (table cells) can always be assigned to two or more dimensions: columns and rows. Each column or row accordingly bears semantic meaning. Very rarely it makes sense from a semantic perspective to implement tables not containing table headers for both columns **and** rows. Tables with only one semantic dimension, e.g. table headers in columns only, are lists and should be implemented as lists. For listings with more than one column, HTML provides the <dl> (definition list) element.

For further examples, please refer to the following website (in German however): [Benimmregeln für Datentabellen](#).

Checklist

- ☐ Tables are not used for layout purposes (Very difficult to achieve in MediaWiki)
- ☐ Tables are formatted with headers for columns **and** rows
- ☐ Matrix tables come with headers for columns **and** rows
- ☐ There are no empty columns or rows
- ☐ Tables have no special characters (e.g. ↑ ☐)
- ☐ Complex data tables have titles and summaries

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MediaWiki Syntax

Layout tables

The first checkpoint is very difficult if not impossible to achieve in MediaWiki. Using the MediaWiki editor the use of tables seems to be the only way to visually structure content. This is a fundamental problem of the MediaWiki CMS system. We just can hope, that MediaWiki will evolve versus a CMS providing the ability to separate layout from content in a semantically correct way.

Table headers for matrix tables

Column heading 1	Column heading 2	Column heading 3
Row heading 1	Cell 2	Cell 3
Row heading A	Cell B	Cell C

Html syntax example	MediaWiki syntax example

<pre><table><tbody><tr>
<th>Column heading 1**</th>**
<th>Column heading 2**</th>**
<th>Column heading 3**</th>**
</tr>
<tr>
<th>Row heading 1**</th>**
<td>Cell 2</td>
<td>Cell 3</td>
</tr>
<tr>
<th>Row heading A**</th>**
<td>Cell B</td>
<td>Cell C</td>
</tr></tbody></table></pre>
	<pre>{|
	|-
	! Column heading 1
	! Column heading 2
	! Column heading 3
	|-
	! Row heading 1
	| Cell 2
	| Cell 3
	|-
	! Row heading A
	| Cell B
	| Cell C
	|}</pre>

<pre><table style="margin-left: 3em;" border="3">
<tbody><tr>
<th scope="col">Column heading 1</th>
<th scope="col">Column heading 2</th>
<th scope="col">Column heading 3</th>
</tr>
<tr>
<th scope="row">Row heading 1</th>
<td>Cell 2</td>
<td>Cell 3</td>
</tr>
<tr>
<th scope="row">Row heading A</th>
<td>Cell B</td>
<td>Cell C</td>
</tr>
</tbody></table></pre>
	<pre>{| border="3" style="margin-left: 3em;"
	|-
	! **scope="col"** | Column heading 1
	! **scope="col"** | Column heading 2
	! **scope="col"** | Column heading 3
	|-
	! **scope="row"** | Row heading 1
	| Cell 2
	| Cell 3
	|-
	! **scope="row"** | Row heading A
	| Cell B
	| Cell C
	|}</pre>

More on MediaWiki syntax of tables: http://en.wikipedia.org/wiki/Help:Table

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Lists

Additionally to a correct semantic implementation of listings in general, the HTML markup of listings as lists <ul>, or <dl>, is highly relevant in terms of accessibility. This applies to listings of contents such as recipes as well as for link lists or entire navigation blocks as nested lists.

Background for correct list mark up to be important in terms of accessibility is that people with normal vision can estimate the length of lists at first glance. This allows them to decide very fast whether they want to read ignore the list. If listings are not tagged as lists, blind people cannot know whether a commencing list will finish after the next item or after thousands more. If the listing is tagged correctly, screenreaders will announce lists as "list with twenty items".

Checklist

☐ Each listed information is formatted as a list

☐ Listed information with several levels are formatted as nested list

☐ For listings with more than one column, definition lists are preferable.

MediaWiki Syntax

List type	Html syntax examples	MediaWiki syntax esamples

Unordered list:
 	
• One
   o One one
   o One two
• Two
• Three
	`<ul>`
	  `<li>One`
	    `<li>One one</li>`
	    `<li>One two</li>`
	  `</li>`
	  `<li>Two</li>`
	  `<li>Three</li>`
	`</ul>`
		`* One`
		`** One one`
		`** One two`
		`* Two`
		`* Three`

Ordered list:
 	
1. One
   a. One one
   b. One two
2. Two
3. Three
	`<ol>`
	  `<li>One`
	    `<li>One one</li>`
	    `<li>One two</li>`
	  `</li>`
	  `<li>Two</li>`
	  `<li>Three</li>`
	`</ol>`
		`# One`
		`## One one`
		`## One two`
		`# Two`
		`# Three`

Definition list:
 	
Definition
  Description 1
  Description 2
	`<dl>`
	  `<dt>Definition</dt>`
	  `<dd>Description 1</dd>`
	  `<dd>Description 2</dd>`
	`<dl>`
		`;Definition`
		`:Description 1`
		`:Description 2`

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Links

One very important requirement for assistive technology users to navigate efficiently is that link texts inform them in self-explaining way about the respective link purposes. The background for this issue are functionalities of screenreaders allowing to generate link lists, to navigate and to directly access them.

Given pages containing overviews of articles with teaser texts and links named "more" or "read more", screenreader users are not able to use auto-generated link lists to get to their desired article in an efficient way, nor do search engines find these links. People with normal vision on the other hand can see what links refer to what article at first glance.

Declarations of format change and file size like "pricelist (PDF 3MB)" is not only important from an accessibility point of view but also from a usability perspective. Visitors of websites want to what and what amounts of data they are downloading when triggering links.

Concerning accessibility, this information is additionally important because some formats cause more accessibility problems than others and must be opened by special software. Further, people suffering from attention and concentration deficits are easily disturbed by format changes.

Checklist

☐ Link texts are understandable, independently of the context

☐ Links to documents have a link text, which describes the format and the file size

MediaWiki Syntax Examples

Internal link

[[Page name]] → Page name

Internal link with different text

[[page name| Description text]] → Description text

External link

http://mediawiki.org

External link with different text

[http://mediawiki.org MediaWiki] → MediaWiki

More on MediaWiki syntax of links (german): http://www.mediawiki.org/wiki/Help:Links/de

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Using colours

Information given by nothing but colour, such as what tab of a menu is currently activated, cannot be accessed by screenreaders, hence they lose orientation and navigation becomes very difficult.

Further, information given by colour only is problematic for all people that are dependent on customized styles. Such customized CSS-styles are often used by people with a series of visual impairments such as increased light sensitivity.

Obviously, this issue addresses colour blind people too.

Check(list)

☐   Information is not only communicated with colours

Multimedia contents

As general rule for dealing with multimedia in the respect to accessibility, just always follow the two-senses principle. Any information contained in a multimedia element must be available for two different sensual modalities, minimum. Text, as an example is accessible visually on the screen, by listening when using text-2-speech synthesizers and by hands using tactile braille displays.

For this reason exclusively visual information such as actions and background processes in videos must be presented in text or as audio-descriptions. Auditory information must be presented visually or in text.

For audio and video contents it is important, that they do not start automatically. Screenreader users must be able to hear the information that their screenreader is providing to them at any time. In the worst case a screenreader user cannot continue navigating the page because he cannot hear a thing.

Checklist

☐   Audio contents have an alternative text version available

☐   Audio and video contents do not start automatically

There are some more checkpoints dealing with video and audio, but since to date there are no videos available on Wikipedia, they are disregarded here.

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Comprehensibility

Obviously, the complexity of written language is very much dependent on the complexity of the discussed issues. Only very few websites deal with issues that cannot be described in plain language. So, proof the depth of your understanding of your issues by writing it down in plain language.

Plain language helps everybody. It helps people suffering from attention and concentration deficits as well as people dealing with a certain issue for the first time, elderly people or people with migration background struggling with their new language.

Instead of explicitly explaining unknown abbreviations in the text when they first occur, the HTML-element <abbr> can be used.

Checklist

☐ The content is written as simple as possible (use active formulations in place of passive ones, avoid too long sentences and avoid or explain technical terms): plain language.

☐ Generally not understandable abbreviations are explained when they first occur

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PDFs

☐ If information is only available as PDF, the document must be accessible. A first check is possible with the free tool PDF Accessibility Checker PAC, provided by the foundation „Acess for All".

☐ If it is not possible to create an accessible PDF, the information must be provided in an alternative format, e.g. in HTML.

In order for a PDF to be accessible, the following conditions must be met:

1. The PDF must be tagged.
2. Resizing text must be possible and reasonable (flow around)
3. There are no formal errors for important contents
4. The contents have a tag-structure and a logical reading order
5. Important images have meaningful alternative texts
6. Tabs are correctly marked up
7. Bookmarks are available for PDFs with 3 or more pages
8. The PDF has a correct structure
9. The document language is defined

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