# ELDIG Accessibility Checklists

## Introduction and Summary

At eLDIG we wish to consider accessibility early and throughout the design and development process for seamless and elegant integration into our courses.

Incorporating accessibility from the start of the development of a course increases the positive impact of designing for a broad constituency of disability while allowing for flexibility to make second level accessibility changes for those students who report their disability. By using UDL principles this checklist hopes to decrease development costs associated with accessibility when it is addressed much later and to avoid situations in which accessibility is considered only at the end of the development process.

When accessibility is considered for the first time in a project, some additional steps to ensure accessibility are required, but most of the planning, design, checking and implementation will fit easily into the processes already in place here at eLDIG and can be considered at each stage of design and development. For example, instead of evaluating accessibility separately, integrating accessibility checks iteratively within the current testing and quality assurance (QA) processes is our intent. We as a group wish to follow a systematic design process where accessibility issues are addressed at each stage.

As a result of this desire, we have created this series of checklists for our team. The goal of this checklist is to help eLDIG staff and our faculty identify common accessibility blockers in courses and to make our content more accessible to a diverse audience.

For this project we have created four usable work products:

an introduction and summary of our intent in eLDIG for serving those with disabilities using UDL principles

1. a checklist for our design standards (what IDs should do when creating courses)
2. a checklist for incorporation of QA/QM with IPSs
3. a checklist for final check of code by the Multimedia Team
4. a checklist for second level accessibility options based on specific requests of students

# Instructional Designer (ID) Checklist

## Accessibility Checkers

- Used built-in checker for MS Word, PPT.
- Used an online checker (e.g., WAVE) for web pages.

## Text

- All web page links have the appropriate ARIA tag.
- Strong style is used in place of bold.
- Text color has a high contrast with the background color.
- Document headings (H1, H2, etc.) are used appropriately.
- Table of Contents is created from headings (MS Word only).
- No text boxes are present in the document (MS Word only).
- Minimal use of hard returns to create white space. Styles are used instead.

## Images

- All images have ALT text.
- All images have captions.
- Images are inline with text (MS Word only).
- Images do not overlap (MS PPT only)

## Tables

- Not used for content placement.
- All tables are captioned.
- All tables have ALT text (MS Word only).
- All tables have table headers.
- No tables have merged cells.
- No tables have empty cells.
- No table cells use hard returns to create extra white space. Styles are used instead.

## Videos

- All videos are captioned.
- Screencasts include links to PPT files where applicable (and PPT files are QA'd with alt text etc.).
- Images in videos are described in captions or transcripts.

## Misc

- No hidden data, personal information, or review comments (MS Word only).
- Slide objects are ordered properly (MS PPT only).

# Instructional Production Specialist (IPS) Checklist

## Canvas Syllabus Items

- Smeal logo present
- Does Syllabus have Course Objectives?
- Canvas Syllabus page links work/open to correct item
- QA Canvas Syllabus page text
- Does Syllabus link download/open in a new window?

## Syllabus Doc Items

- Syllabus doc shows correct semester/year (i.e., SU00, FA00, SP00)
- Course Overview/Objectives
- QA Syllabus text
- Syllabus doc in Box shared with "people in your company"
- Syllabus doc does not have "track changes" showing
- Do links within Syllabus work?

## Schedule Items

- Schedule is shared with "people in your company"
- Compare assignment dates on schedule to modules
- Compare schedule module/lesson/assignment titles to Canvas
- QA Schedule text
- Schedule links work/open to correct item
- Assignments Summary matches schedule
- Does Schedule link download/open in a new window?

## Course Orientation

- Course intro video present
- Course objectives/overview present/ Match syllabus
- Course objectives match syllabus
- Instructor bio present/Correct instructor and picture
- Meet your instructor video present/captions present
- Docs open/Box Docs are shared with "people in your company"
- Check links, videos & video downloads Firefox
- Check links, videos & video downloads Safari
- Check links, videos & video downloads Chrome
- Check links, videos & video downloads IE
- QA all text
- Images are responsive and have alt text
- Videos are responsive
- Correct academic Integrity statement present

## Module Intro Pages

- Objectives are listed
- All pages are titled Module # first
- Banner image present
- Check All links, videos and video downloads Firefox, Safari, Chrome, IE
- Check videos for closed captions or link to transcript
- YouTube videos have ?rel=0 at the end of the link
- All docs open and are pointing to the correct version.
- Box docs are set to "people in your company"
- Docs have track changes removed
- Docs are the correct version/QA all text
- Readings listed in Course Reserves are there
- QA all text
- Images are responsive and have alt text
- Tables are responsive and have the "aria" code
- MT pages have the <div id="wizard"> at the beginning and </div> at the end

## Lesson Pages

- Objectives are listed
- Title matches syllabus/schedule
- Headings consistent with H2, H3, H4
- Check All links, videos and video downloads Firefox, Safari, Chrome, IE
- Check videos for closed captions or link to transcript
- Videos are responsive
- YouTube videos have ?rel=0 at the end of the link
- 3rd party videos have copyright statement
- All docs open and are pointing to the correct version.
- Box docs are set to "people in your company"
- Docs have track changes removed
- Docs are the correct version/QA all text
- Readings listed in Course Reserves are there
- QA all text
- Images are responsive and have alt text
- Tables are responsive and have the "aria" code
- MT pages have the <div id="wizard"> at the beginning and </div> at the end
- Reading citations are in APA format

## Assignments

- QA all text
- Check All links, videos and video downloads Firefox, Safari, Chrome, IE
- Formatting consistent
- No remnants for track changes

- Dates reflect current semester
- Titles and due dates match syllabus and schedule

## Discussions

- QA all text
- Check All links, videos and video downloads Firefox, Safari, Chrome, IE
- Title matches syllabus/schedule
- Docs open/Box Docs are shared with "people in your company"
- No remnants for track changes

# Multimedia Checklist

- Ensure that if color is used to convey meaning, a second indicator of the meaning is also present
- Ensure all interactive items are tabbable and usable with screen readers
- Ensure tables aren't used for layout purposes - tabular data only
- Ensure table th elements include "scope"
- Ensure tables do not have merged or empty cells
- Ensure all contest passes WebAIM contrast check
- Start of animations, video, audio is controlled by user
- Progress through presentations is controlled by user
- Ensure that no text items are floated right
- Ensure text is not presented as an image
- Ensure all external links have aria tags ***Note: to be done in MT only.  Canvas has this built in***
- Ensure all hyperlinks are underlined
- Ensure video and/or audio has been captioned, and transcripts are available
- Ensure that if information is presented visually in videos (without audio description), there is also a text description
- Ensure correct heading hierarchy
- Ensure no links start with "click here."  Links should be contextual, add URL if needed for printing
- Ensure PDFs have passed Acrobat accessibility checker*
- Ensure that course syllabus includes the statement on accommodating disabilities.
- Ensure equations are created with LaTeX or an equation editor (e.g., MathType) which allows rapid conversion to MathML.
- Ensure all non-decorative images have alt text

*Avoid the use of PDFs if possible. If you have the original document in MS Word or PowerPoint format, optimize it for accessibility and offer it instead. If you must offer a PDF version of an MS Word or PowerPoint document you created, offer both the original and PDF version. You can state that the MS version is optimized for accessibility, and the PDF version is optimized for printing.

# Second Level Accessibility

When a student is identified by the Office of Disability Services as taking a Smeal course, it is useful to reach out to that student to let them know someone on our team is available to assist them with their accessibility needs.

They may already be working with the World Campus Accessibility office, so partnering with that office to provide material and accommodation is critical.

Some possible secondary levels of support that we might offer include:

- Identify the technology used in the course (e.g., Yammer, VoiceThread, Office365, etc.) both purchased and provided and list them in the syllabus.
- Research the accessibility of each technology and then decide about continued use based on the findings.
- Do not require that students use inaccessible technologies to complete the course; provide options and allow students to use their tool of choice when appropriate.
- When possible, include links to information about the usability and accessibility of all technologies used for class interactions and assignment completion.

General Accommodations that can be used:

- Add extended time to the students' exams if needed.
- Send course readings to the Disability Specialist.
- The content of any non-Penn State resource such as a Web site, PDF article from a journal, slides from external sources or other non-Penn State informational resource must be provided in an accessible format to students requiring accommodation. In some cases, it is permissible to copy and reformat content just for students with a documented need.
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- Use Penn State technology options (e.g., Canvas, Sites at Penn State) for course work whenever possible. Note: See http://accessibility.psu.edu/courses for information on specific Penn State tools.
- Investigate the accessibility of all non-Penn State technologies or materials and decide about continued use based on your findings.

Sight impaired specific accommodations:

- Create enhanced video transcript that can be read by screen reader. Go over the transcript to add text-based descriptions to anything the faculty refers to that is an image.
- Use audio describe any images especially related to assignments

Dyslexia or cognitive impairment:

- Offer Natural Reader integration
- Integration of Google voice for note taking
- Provide link to better grammar and spelling checker for those with writing

# Web Pages Checklist

## Tables

- Do not use tables for layout and design purposes.
- Restrict tables to presentation of data.
- Use the simplest table possible. It is better to use lists or several simple tables rather than a complex table with merged cells.
- Use table headers (<th> tags) to identify row and column headers and specify the scope (scope="col" or scope="row").
- Use a caption to display the table title (add class="offScreen" to hide the caption if you don't want it to be visible).
- Use the summary attribute to describe the type of information and how it is organized or the main point of the table, depending on the table's purpose.
- Don't merge cells.
- Avoid empty cells by using a dash to fill the cell. Screen readers will ignore a cell with a dash. If you want, you can color the dash the same as the background color to make it invisible to sighted viewers; the cell looks empty but is not.
- Never create extra space within a cell by adding hard returns or spaces, as the blank spaces will be read aloud to the viewer by the screen reader.
- Never nest a table within a table.

## Headings

- Use headings to break up page content and provide a visual outline of the page.
- Mark up headings with heading tags tags in order down to <h6>.
- Use descriptive heading text to aid usability and readability.
- In Canvas start with <h2> and in Evolution start with <h3>.

## Fonts

- Use real text with graphics, not text embedded in an image. Screen readers cannot read "graphical text" and when you zoom in on it, it appears distorted.
- Use simple, less ornate fonts that are commonly available on most computers.
- Attempt to use san serif fonts –fonts that do not have any ornamentation on the ends of a character stroke. These types of fonts are less complex visually. Verdana, Tahoma, Trebuchet MS are sans serif fonts developed specifically for use in electronic media and are commonly available on most modern computers. Georgia is a serif font developed specifically for use in electronic media and is also commonly available on most modern computers. While a bit more ornate than the others previously mentioned as it does have ornamentations on the end of its character strokes, it is considered an acceptable font to use.
- Limit the variety of fonts in a document.
- Avoid small (less than 12 point) font sizes.
- Avoid using all capital letters. Words in all caps are harder to process.
- Use headers (H1, H2, etc.) to define the relative sizes of fonts in a document.

- Use the strong style in place of bold. Screen readers process this better. Many HTML editors will do this automatically when you bold text.
- Limit the use of italics. Words in italics are harder to process.
- Avoid blinking or moving text. Screen readers struggle with this.
- Do not use hard returns between list items to add white space. This forces screen readers to read aloud extra unnecessary things between each list item.

## Video and Audio Checklist

- Audio files should be transcribed.
- Videos should be transcribed and captioned. Note: See the videos page for information on storyboarding, speech recognition or captioning services.
- Visual demonstrations need a text or audio description.
- Make sure media files don't play automatically when a user enters the site.
- Transcripts or captioned videos must be provided to students requiring accommodation. However, the distribution of the content may be restricted because of copyright. Find captions/transcripts if you can. Note: See the videos page for tips in finding a pre-existing transcription text.
- The playback of animations should be under the control of the user. If playback controls are not possible, the animation should be set to play several times only. It should not loop continuously.

# MS Word, PowerPoint, and PDF Products Checklist

## Word

- Word Documents should have correctly styled headings, lists, and tables, and images should be described - see the Document Lesson for details.
- All course documents should be real text and free of markings and highlights.
- Table of Contents must be created via text headings.
- Documents with section headings should include semantically tagged headings. Use descriptive heading text to enhance page navigation and readability.
- Font size and type should be 11-point or bigger.
- Font color should be used only as a design element, not for meaning.
- Have a strong contrast between foreground/background colors.
- Check that the Strong style (not Bold) is applied.
- Do not use drop caps or Word Art. If you must use them, create an image of them, add ALT text to them, and replace the drop caps/Word Art with these images.
- Bulleted and Numbered lists – Use the paragraph spacing tool to add white space, NOT extra returns.
- Headers and Footers – Do not include critical information.
- Use contextual links. Example: The Penn State Home Page vs. http://www.psu.edu.
- All images and tables must have alt text and captions.
- All images should be set to "in line."
- All tables must have a header row.
- Keep table rows on the same page.
- Ensure table cells do not contain extra white space/returns.
- If you must produce a PDF from Word document, optimize for accessibility your Word document before producing it.
- Run the Accessibility Checker to spot errors.

## PowerPoint

- Ideally, import an outline from Word into PowerPoint.
- Add a presentation transcript to the Slide Notes Pane.
- Use content placeholders to insert charts, graphics, and text.
- Create new slide masters if you need a slide template with multiple placeholders.
- Use the Selection and Visibility Pane to order content on a slide.
- Run the Accessibility Checker to spot errors.

## PDFs

Avoid the use of PDFs if possible. If you have the original document in MS Word or PowerPoint format, optimize it for accessibility and offer it instead. If you must offer a PDF version of an MS Word or PowerPoint document you created, offer both the original and PDF version. You can state that the MS version is optimized for accessibility, and the PDF version is optimized for printing.

If you have a PDF you did not create, run the Accessibility Checker on it and make the needed corrections.

# Quality Matters (QM) Derived Checklist

## Standard 8.1

Course navigation facilitates ease of use.

- Clear heading structure/ Correct heading levels and styles used
- Good use of data tables
- Meaningful file and page names
- Meaningful link text

## Standard 8.2

Information is provided about the accessibility of all technologies required in the course.

- All required course technology is listed in the syllabus
- Accessibility information about course technologies is provided
- Course technologies have been approved by Risk
- Tools with partial accessibility are used in teams or pairs if needed for graded activities
- Students can choose their own tool when appropriate

## Standard 8.3

The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.

- Videos are captioned and transcribed, or a plan exists to do that if needed
- Audio files are transcribed, or a plan exists to do that if needed
- Images are described in alt text or longer descriptions as appropriate
- Documents are real text, not scans and are free from markings
- Color is not the only means used to convey meaning

## Standard 8.4

The course design facilitates readability.

- Readable fonts are used in documents and images
- Good color contrast is used for page text, images, and documents
- Format and text color are used to communicate key points, group like items, and emphasize relevant relationships
- Math is provided in a machine readable and clearly understandable way for all students which means MathML with MathJax, LaTeX with MathJax or math in Canvas (SVG with alt text)

## Standard 8.5

Course multimedia facilitates ease of use

- Graphics and animations illustrate ideas without causing distractions
- Images are appropriately sized and can be viewed in their entirety without scrolling
- Audio quality is clear
- Videos are chunked (anything longer than 15 to 20 minutes)

- Videos can be resized and have clear resolution
- Movement through presentations can be controlled
- Multimedia elements do not auto play
- Interactive elements work on various platforms and browsers
- Interactive elements need to work with keyboard and assistive technology