



Utilizing a PDF as a Tool for Learning

This document is guide to using PDF's for accessibility purposes with the Universal Design for Learning in mind. This document includes some best practices and documentation for making common media tools such as Microsoft Word, PowerPoint and Articulate Rise into more accessible documents for all learners.

Table of Contents:

1. [The Implications of using a PDF](#)
2. How and Why to Include a PDF as a Supplemental Document when Supplying Content in a Course.
 - a. [Creating a PDF from a Rise Document](#)
 - b. [Creating a PDF from a PowerPoint Presentation](#)
 - c. [Creating a PDF from a Word Document](#)
3. [Additional Resources and Tools](#)

The Implications of Using a PDF

There are many reasons why offering a PDF version of content can be useful to all learners. By including a PDF duplicate of a Rise module or PowerPoint presentation you allow the learner or individual who is consuming the content the freedom of accessing the content in different ways. For example, a PowerPoint presentation often includes audio and visual content. Although this content can help to enrich the learners engagement with the material, it can also

limit the learners engagement with material. For instance, someone who has low vision may need to access the content using a screen reader. Typically navigating a PowerPoint with a screen reader can be challenging as the content on each slide may be presented in an inconsistent or an incorrect order that the content creator intended, which can cause confusion. Whereas if the PowerPoint presentation is exported as a PDF, the content can be delivered in a sequential or linear order, and can have clear syntactic tagging, which helps to indicate the importance of the material being presented. Having an accessible PDF also encourages the use alternative text on images. Using alt-tags not only allows someone with low vision to experience an image, but allows for a unique opportunity for a content creator to add more depth and meaning to why a specific image was included in the content. By including alt-tags, it reminds us to examine the purpose for including visuals in content forces us to question the inclusion of all visuals. Exporting to a PDF also allows for users to access the file at a fraction of the size. This means that users who may have low bandwidth or who may be accessing the content from a cellphone can do so without having to access large file sizes. For video that may be embedded in the PowerPoint or other media, consumers should be able to access that content from a link if they choose.

Creating an Accessible PDF using Adobe Acrobat (from an Articulate Rise course)

Below is a detailed step-by-step guide on how to export an interactive Articulate Rise module and convert it into an accessible PDF. Once exported from Articulate Rise, the steps to make the PDF accessible can be applied to any PDF.

- Begin by opening the PDF using Adobe Acrobat, and opening the Rise module by logging into www.rise.articulate.com
- Find the Course in question in the Rise module list (if you cannot find it, the course may need to be shared from the course owner for access to the course and the editing privileges)
- For the best workflow, open the PDF on one side of your screen and the Rise editor on the other side of the screen
- Under the Action Wizard tool in Acrobat (this can be added to your tool list by customizing your toolbar or can be accessed by clicking on the tools tab), click the "make accessible" button.
- Click Start
- The tool will take you through several changes in the workflow:
 - Description: Leave all boxes titled "Leave as is" checked, this will maintain the naming convention exported by Rise
 - Recognize Text: under output, select "searchable image (exact)"

- The tool will now convert images to recognizable images for a screen reader. This usually takes anywhere from 2-15 minutes depending on the amount of images.
- When completed Acrobat will prompt a popup window asking what you would like to do about detectable forms, simply click "no, skip this step" as students will never need to worry about filling any forms out using the PDFs (unless otherwise instructed).
- Set correct reading language and click "ok"
- Acrobat will run through the pages to check for forms and mark them as not fillable.
- Once completed, a "set Alternate Text" window will pop up with a counter of "x of y" images where x is the numbered image that you are on and y is the total number of images in the document.
- The popup window will move through each image in the document. The image that corresponds to the pop up will be highlighted in blue on the actual document itself.
- For any decorative or nonessential images (bullet points, buttons, etc) fill the alt-text tag as two consecutive quotation marks. "" This will tell a screen reader to bypass the image. Doing this is a good option as marking the image as decorative will break up the flow that a screen reader will compute the data on the screen and will call out to the user that there has been an image marked as decorative. Use "" for images that come up as bullet points or text indicators. All images that are considered decorative should be marked as decorative images as per the AODA WCAG 2.1 AAA standards.
- Continue to move through the document marking punctuation and indicators using the "" until you come across an image that may have an alternative tag attached (anything that is an actual image conveying meaning for the user).
- When you come to an image on the PDF document, scroll through the Rise module in the online editable version on www.rise.articulate.com in your browser.
- When you find the image in Rise, Click edit to open the content and settings side drawer, and then click on the edit button to the right of the image (typically images that will have alt text attached will have the word "alt" written on them).
- After clicking "edit" click "edit alt-tag" to view the alt tag.
- From here, copy the text in the alt-tag from rise and paste it into the box in Acrobat.
- Continue to work through the process until complete.

- If you happen to come across an image in Rise that does not have an alt-tag and should ([see AODA WCAG 2.1 AAA standards here](#)) reach out to the Instructional Designer or Content Creator for further instruction. Keep in mind, alt-tags should be included in all images that portray meaning in the content and should be completed by the content creator for correct meaning.
- Once the alt-tag process is complete, click save and then “Run Accessibility Full Check” from the tool bar side-drawer.
- When this process is complete, the left side-drawer should open and show any issues.
- Right click on each section with issues to view and resolve the issues as needed.
 - To resolve an issue, right click to bring up secondary menu and then click “fix”
 - To correctly resolve issues, several standards must be met and updated
- Typically when exporting a Rise document, reading order is something that should be spot checked (reading order is the order in which a screen reader moves through content). Pages that have incorrect reading order will display content incorrectly which will make content hard to understand.
- To update and spot check reading order, in the left drawer under the Action Wizard click on the reading order icon which looks like a “Z”.
- You should now see the order and which content is read on each page (this includes images that have been marked as decorative or marked to be hidden)
- To edit the order of each item, click on the object in the left drawer under the corresponding page (the object will have a number on it that corresponds to the object list in the drawer).
- To change the order, drag the object up or down in the list in the left drawer.
- Once you have completed spot checking the reading order, click the “tag” tool button (looks like a hang tag) under the reading order button. This tool manages the syntactical hierarchy that is set for text/images.
- Although technically for the document to be accessible this step needs to be done, however can afford to be skipped if necessary.

- To set correct syntax for tags, click on the object in the left drawer and update the tag accordingly. For more on tagging syntax see [W3C's work on tagging syntax](#).
- Once the Acrobat Accessibility process is complete, update the file name from "filename.pdf" to "filename_accessible.pdf" and upload it back up to the appropriate place as a duplicate file.

Exporting a PowerPoint Presentation to PDF

- Begin by opening your PowerPoint presentation
- Click on the "file" in the menu bar, and then "save as"
- Choose PDF from the dropdown and then click save
- Follow the steps noted above to increase the accessibility of the document
- Keep in mind that although PowerPoint has its own accessibility features (this includes adding alternative text for images), it is still necessary to go through the Adobe Acrobat process to make sure that the PDF has the correct syntactical tagging and that the alternative text added in PowerPoint transferred to the PDF.

Exporting a Word Document to PDF

- Begin by opening your Word document
- Click on the "file" in the menu bar, and then "save as"
- Choose PDF from the dropdown and then click save
- Follow the steps noted in the "to increase the accessibility of the document"
- Keep in mind that although Word has its own accessibility features (this includes adding alternative text for images), it is still necessary to go through the Adobe Acrobat process to make sure that the PDF has the correct syntactical tagging and that the alternative text added in PowerPoint transferred to the PDF.

Additional Resources and Tools

- [World Wide Web Consortium \(W3C\)](#)
 - The governing body on accessibility guidelines and standards. All Accessibility for Ontarians with Disabilities (AODA) is based on the standards created by the consortium
- [Accessibility for Ontarians with Disabilities \(AODA\)](#)
 - The AODA standards are specific to Ontario
 - All public facing businesses and content supplied by them are required to comply with AODA standards
- [Adobe Acrobat Pro DC](#)
 - A subscription based tool to manipulate PDF's. The paid version must be used to access accessibility features
- [Articulate Rise Accessibility Forum](#)
 - Articulate is continually adding to their accessibility features by harnessing the community updating their tools. This webpage lists new features that are added and how to use them.
- [Queen's Accessibility Hub](#)
 - The Accessibility Hub has Queen's specific guidelines and tools that may help in the process of creating accessible documents.
 - The Accessibility Hub can also be contacted if more information or support is needed.
- [Arts and Science Online Multimedia Team](#)
 - For more support relating to accessibility, please feel free to reach out to the Arts and Science Multimedia team at: asomm@queensu.ca