Designing Accessible Word Documents

Transcript of the Introduction Video

Talent Acquisition & Development, Human Resources

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Contents

Accessibility Statement

This document includes the content from the introductory video for Designing Accessible Word Documents, arranged as follows:

1. The title of each presentation slide formatted as a Heading 1.
2. Text content from the slide.
3. A figure caption further describing the slide visuals.
4. An image of the slide. This image is marked as decorative for screen readers since the slide in described in the caption.
5. The speaker's script for each slide, presented under a Heading 2.

The introductory video can be found in TAD's [Designing Accessible Word Documents YouTube Playlist](#).

Designing Accessible Word Documents

Talent Acquisition & Development, Human Resources, York University

Figure 1: Title slide with image of a laptop computer on a desk.

Script

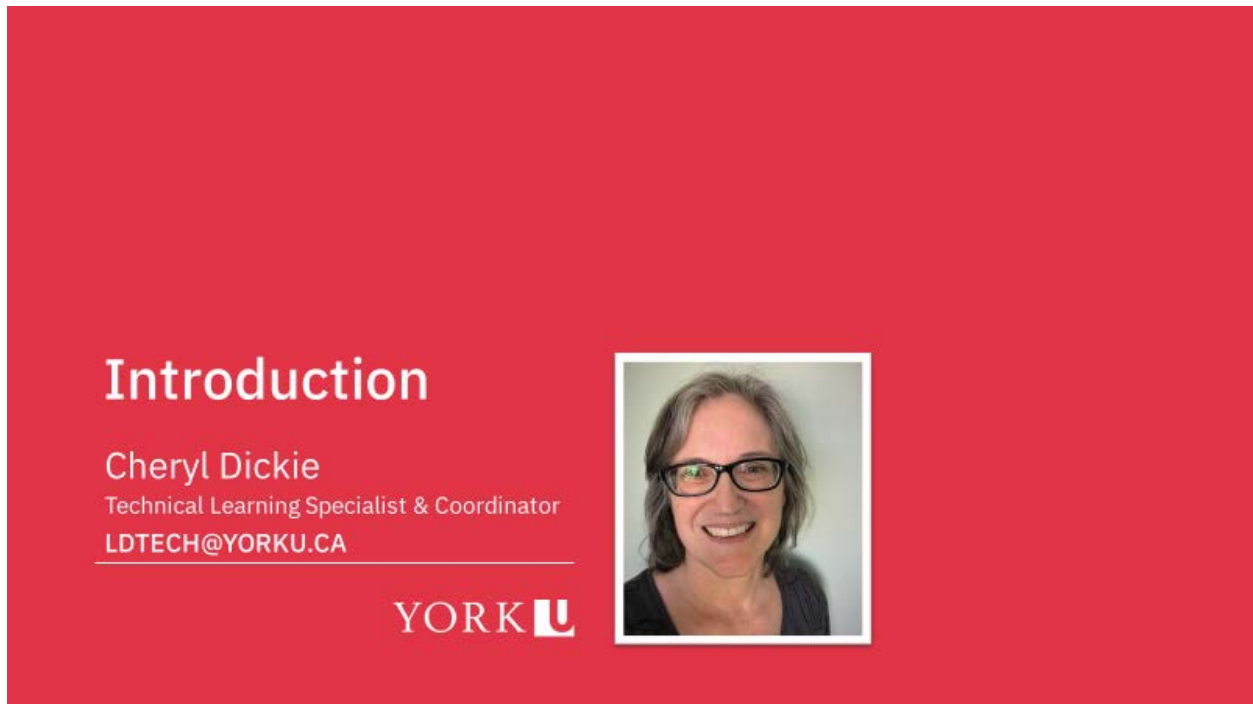Welcome to the Introduction to Designing Accessible Word Documents!

Introduction

Cheryl Dickie
Technical Learning Specialist & Coordinator
LDTECH@Yorku.ca

Figure 2: Introduction slide including a photo of the presenter.

Script

My name is Cheryl Dickie, and I'm the Technical Learning Specialist and Coordinator in Talent Acquisition and Development, part of Human Resources.

If you are responsible for creating documents that will be distributed electronically to the public, this is where you should be.

This video series provides background for our instructor-led demonstration on how to design documents that are accessible to people with disabilities. That course introduces how to use Microsoft Word to create an accessible document and convert it to an accessible PDF. In this series of videos, we'll direct you to resources for working with other kinds of documents as well.

If you need to contact us with any questions about this course, please send an email to ldtech@yorku.ca--that's l d t e c h at yorku dot c a.
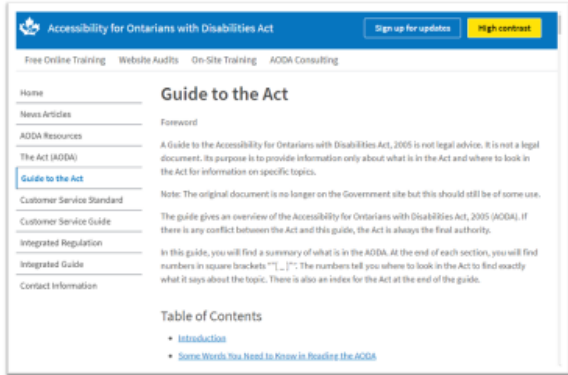
Accessibility for Ontarians with Disabilities Act (AODA)

- Customer Service Standard, as of 2008:
    - Provide accessible info when requested
- Information and Communications Standard, as of January 2014:
    - Make publicly-available info accessible to start with
    - Some exceptions
- Provide accessible version of internal info on request
- Why wait?

Figure 3: Slide with a screenshot of the AODA website and an image of a stopwatch.

Script

Legislation called the Accessibility for Ontarians With Disabilities Act, AODA for short, has been rolling in across Ontario in stages for more than a decade.

Since 2008, the AODA Customer Service Standard has required us to provide an accessible version of a document to anyone who requests it.

Since January 2014, the AODA Information and Communications Standards require that public websites and content—including documents—be made accessible to users with disabilities *before* we make them public in the first place.

This later stage of the legislation acknowledges that waiting for an alternate version of information sets some people behind others and compromises their right to equal access.

There are provisions within the legislation to account for situations where it's not under our control to make something accessible. That rarely, if ever, applies to documents! Almost all the documents we create can readily be made accessible.

What about internal documents, where people must log in with their University credentials to view or download them? As of this recording in January 2021, you do not have to make internal documents accessible right away. Technically, you can wait to receive a request. But if someone asks you for an accessible version of a document, you must provide it without unreasonable delay.

Why wait? We encourage you to plan for accessibility in all the documents you create, whether internal or public—that's the best way to form good habits and be ready for more rigorous stages of accessibility legislation to come into effect in the future.

You may have heard about a new phase of the AODA legislation that recently came into effect. As of January 1, 2021, public website content must now meet a higher level of the published accessibility standards than previously required. As for documents, we've had to do this work since January 2014, so not much has changed.

Accessibility Standards

- Web Content Accessibility Guidelines (WCAG)

Figure 4: Slide with a diagram suggesting the relationship of accessibility principles, guidelines and techniques.
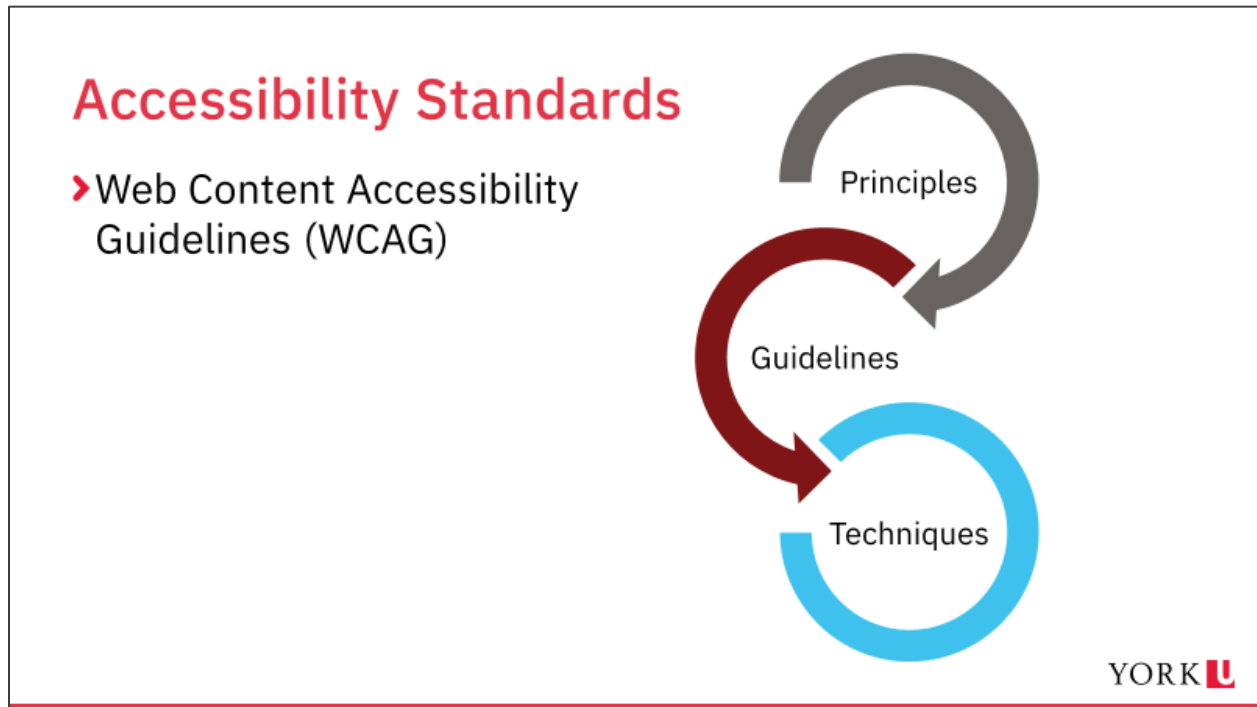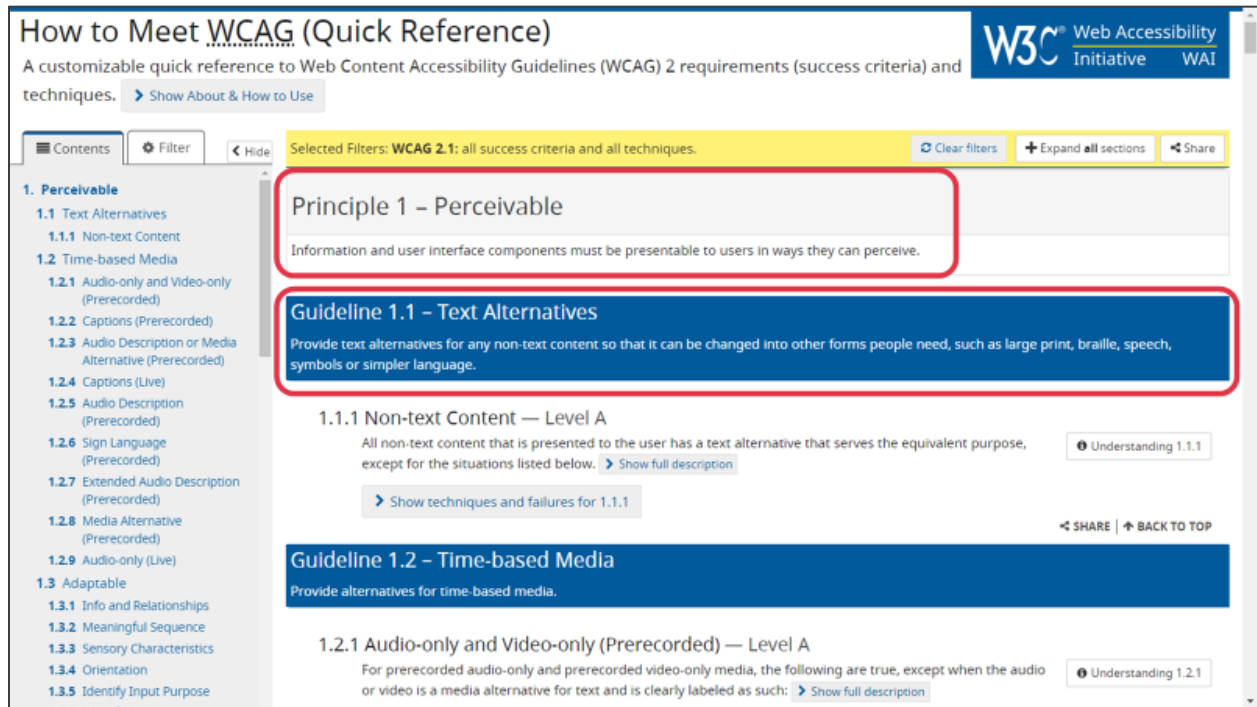

Script

AODA says that public websites must comply with the Web Content Accessibility Guidelines, or WCAG, an international standard that has existed for over 20 years.

WCAG outlines **principles** for accessibility, breaks those down into **guidelines** for creators, and finally points creators to **techniques** they can follow to satisfy the guidelines.

WCAG Quick Reference

Slide has a screenshot but no additional text.

Figure 5: Slide with screenshot of the WCAG Quick Reference website showing Principle 1: Perceivable and Guideline 1.1: Text Alternatives.
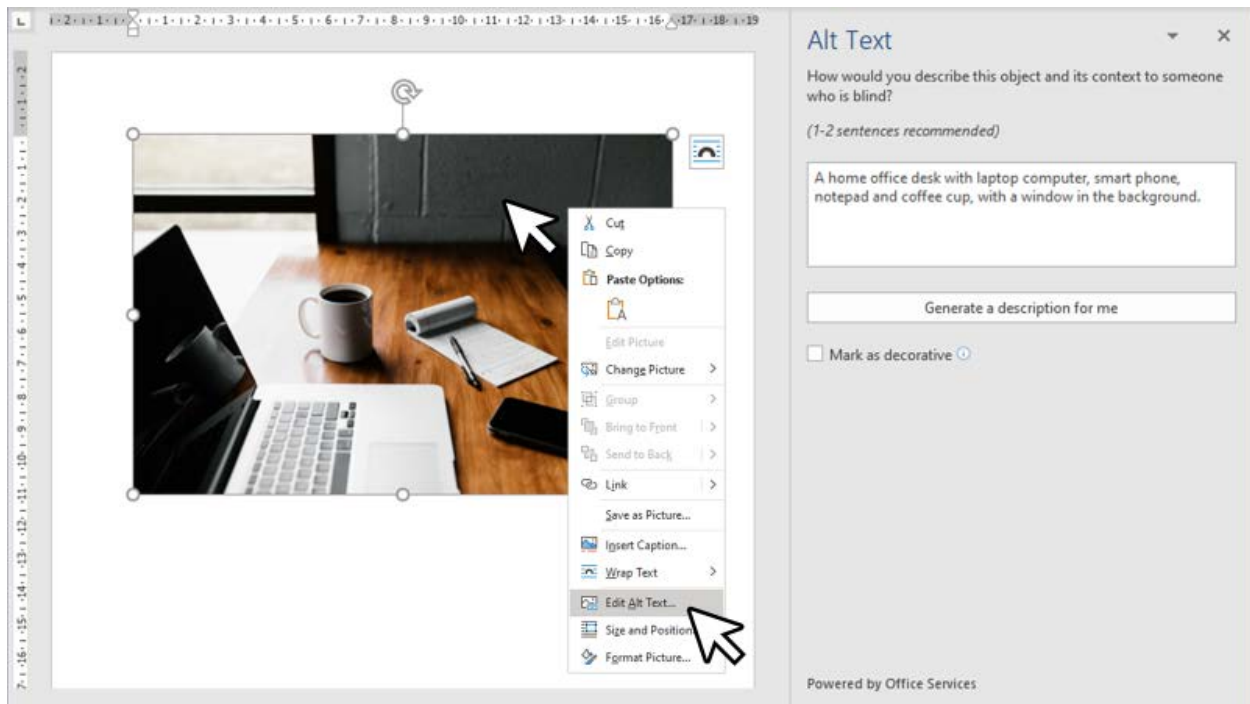

Script

For example, Principle 1, "Perceivable," states that content must be presented in a way that users can perceive.

One *guideline* under the Perceivable principle is that creators using non-text content like an image must include alternative text, or "alt text", that serves the same purpose and presents the same information as the image.

Adding Alt Text in Word

Slide has a screenshot but no additional text.

Figure 6: Slide with a screenshot of adding alt text to an image. The detailed alt text reads: A home office desk with laptop computer, smart phone, notepad and coffee cup, with a window in the background.

Script

A *technique* tells you *how to* satisfy a guideline with the technology you use. For example, in Microsoft Word you right-click on an image, select Edit Alt Text, and then enter alternative text into the Description field.

Did you notice that I started talking about web accessibility standards and then gave you an example from Microsoft Word?

Despite its focus on web authoring, WCAG is *the* definitive standard for making electronic content accessible. The principles and guidelines outlined within it are the same ones we follow when building documents with Word, PowerPoint, or any other software.

You probably won't need to visit the WCAG site and study it yourself. At the end of this video I'll introduce you to a more user-friendly learning resource.

Accessibility Considerations

Category	Examples	Adaptive Tools/Techniques
Visual	Blindness, low vision, colour blindness	Screen reader, screen magnifier or zoom software, described video
Motor	Inability to use a mouse, slow response time, limited fine motor control	Alternative mouse, keyboard shortcuts, voice commands
Auditory	Deafness and hard of hearing	Transcripts, closed captions
Cognitive	Learning disabilities, distractibility, inability to remember or focus on large amounts of information	Any or all of the above

Adapted from WebAIM.org

Figure 7: Slide includes a picture of the table presented above.

Script

I have studied the techniques for making documents accessible to people with disabilities, but I am not an all-around accessibility expert. That said, I'll try to provide some additional background here.

Experts typically divide accessibility considerations into four categories: visual, motor, auditory and cognitive.

Within each category, people may experience barriers for different reasons, and use different adaptive tools or strategies to overcome a potential barrier.

Someone who is blind might adapt by using a screen reader to recite the text content from a document, while someone who has low vision might use a screen magnifier to enlarge everything. Looking at the motor skills category, someone unable to use a mouse might adapt by using keyboard shortcuts or voice commands.

Our job is to make documents that work with as many adaptive tools and strategies as possible.

Let's look more closely at two specific examples within the Visual category.

Cataracts

Images from WebAIM.org

Figure 8: Slide includes two images. The first image is captioned as "Figure 1: Portrait photo of a young child" and appears blurred and very light, making it difficult to see details. The second image is of blurry and very light text against a light background, which is difficult to read.

Figure 1: Portrait photo of a young child
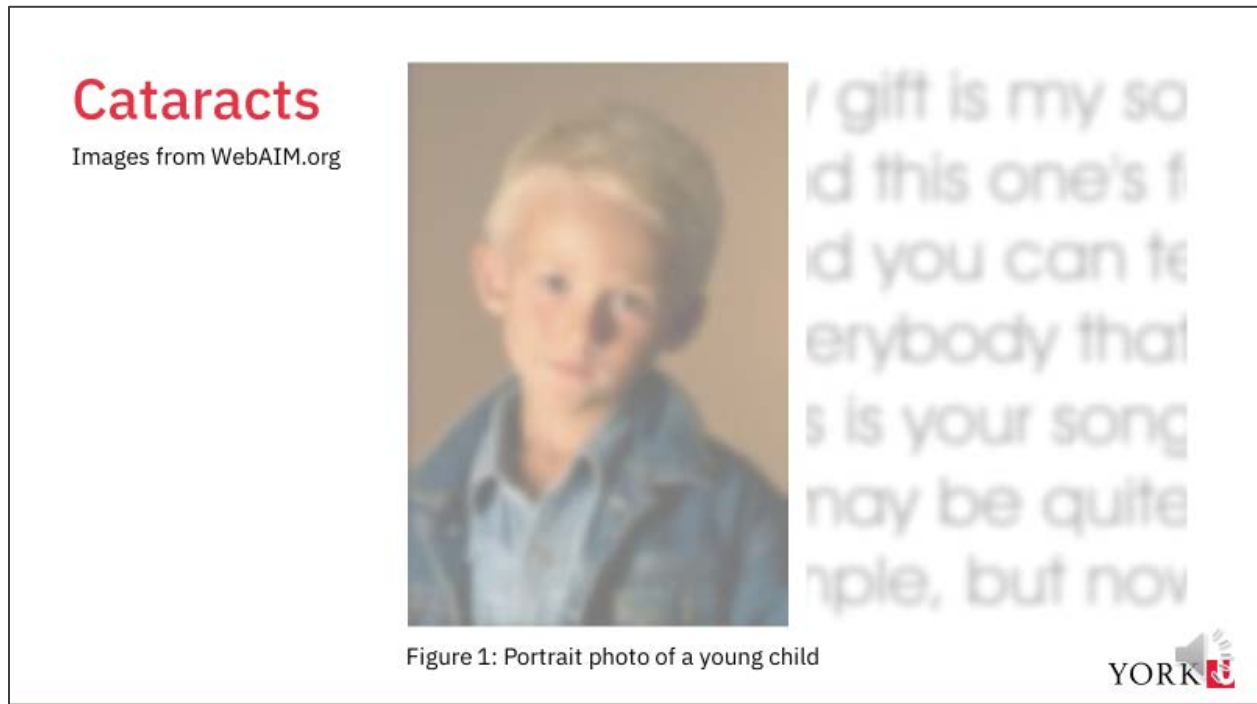
Script

These images simulate how a person who has cataracts might see your document. Everything in a document looks fuzzier and lower contrast to someone with cataracts. We need to ensure high contrast between the text and background and use a simple clear font, so that the document is usable to that person. Including a caption on the photo would be helpful, too, to communicate what the picture represents to someone who can't see it clearly.

Colour Blindness

Images from Vischeck.com

Figure 9: Slide includes two images. The first is a scientific image of a cell stained in red and green to show its internal structure. The second is an image of the same cell showing how it would appear to someone with red-green colour blindness.
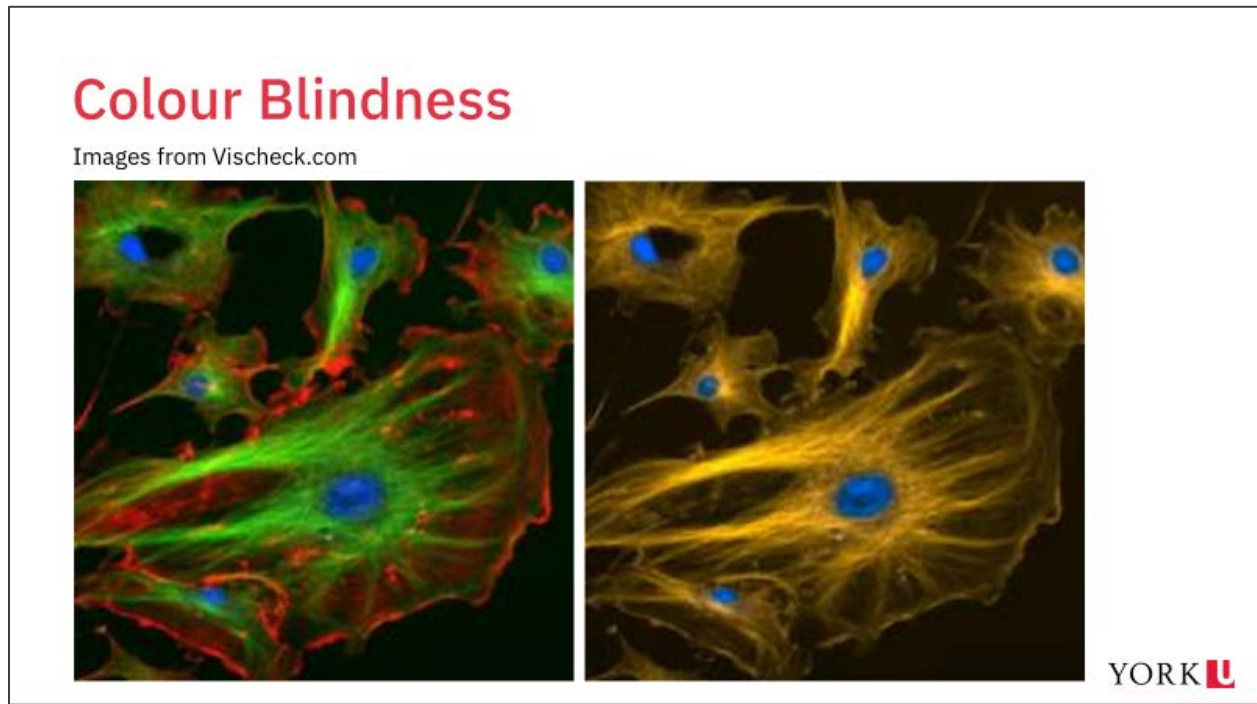
Script

Here are two versions of a scientific slide stained to distinguish the essential structures of a cell. The original image is on the left, while the right simulates what the image would look like to somebody with red-green color blindness. It's not possible to see all the structures on the right!

Color blindness occurs in up to 8% of men and 0.5% of women, and it takes many forms beyond red-green colorblindness.

This example teaches me to be alert to how I use color in general. If color is the only thing that conveys the meaning of something in my document, like red for "stop" and green for "go", I exclude people. Even someone with normal colour vision may be using a greyscale printout of my document—I want it to work in that situation, too!

Web Accessibility in Mind (WebAIM)

- WebAIM.org/intro

Figure 10: Slide includes a screen shot of the introduction to Motor Disabilities on the WebAIM website.
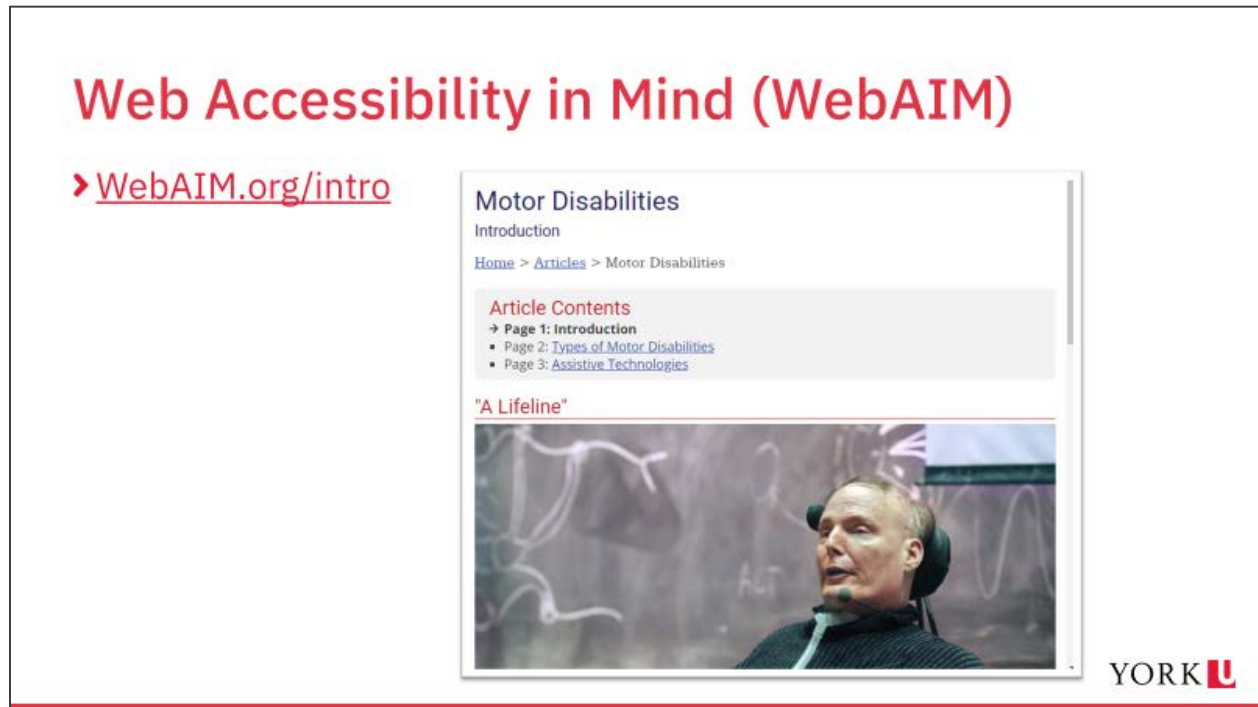
Script

If you'd like to examine these categories and examples further, visit the [Web Accessibility in Mind (WebAIM)](#) site, where they have a great introduction to accessibility considerations including interviews and simulations to illustrate what things are like for people with disabilities when websites are not designed with them in mind.

Accessibility is Individual

- Design documents to work with common adaptive tools and techniques
- Adapt them promptly if a more specific request is received

Figure 11: Slide includes clip art of a desktop computer sitting on a desk with a monitor keyboard and mouse. It includes a caption: "This Photo by Unknown Author is licensed under CC BY-NC-ND."

Script

Our obligation is to design documents to work with common adaptive tools and techniques so that they're accessible for a majority of people.
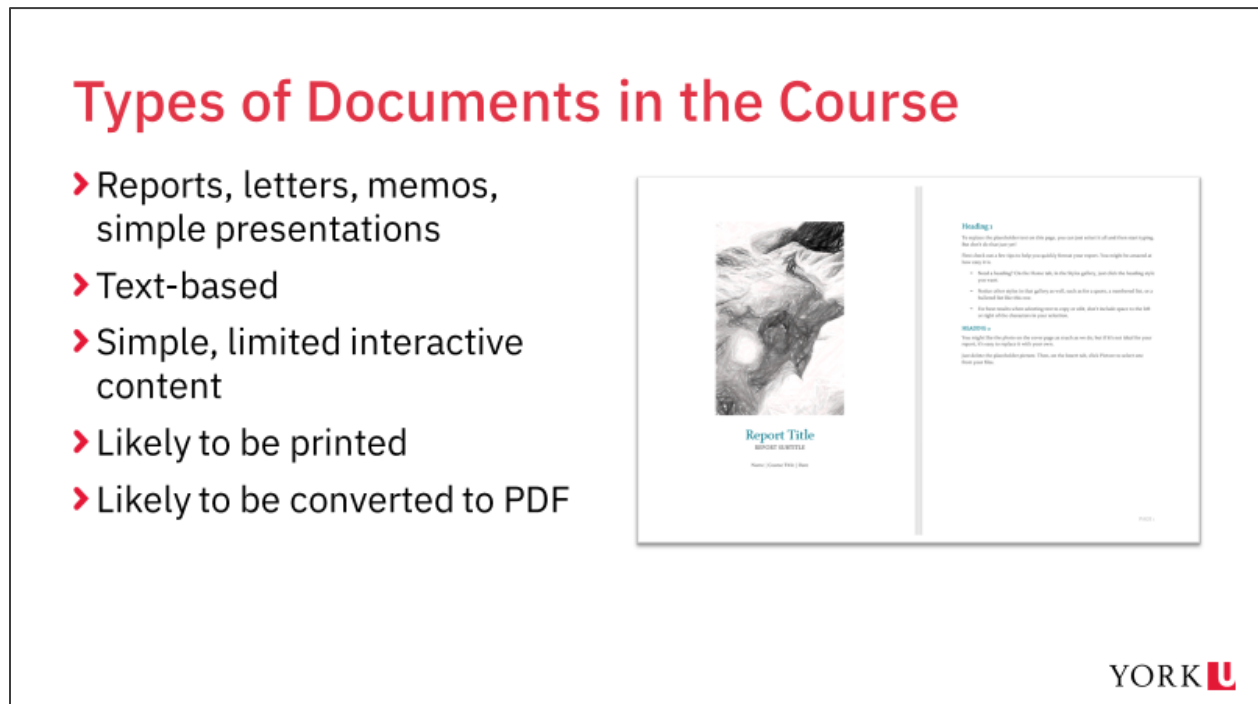
But we must also judge accessibility in terms of individual needs, given that people and their needs (and preferences) vary greatly.

You may still receive requests to adapt some documents further for a specific person's needs. If so, you must respond to that request promptly. That will be much easier if you have a reasonably accessible document to start with!

Types of Documents in the Course

- Reports, letters, memos, simple presentations
- Text-based
- Simple, limited interactive content
- Likely to be printed
- Likely to be converted to PDF

Figure 12: Slide includes an image of a simple report with a cover picture, title and headings.

Script

We designed this course for people who create typical office documents like reports, letters, memos, and basic presentations.

- These documents are primarily **text-based.** They may contain some images or objects like a table or chart, but they are not heavily graphical and they don't contain rich media like audio and video.

- These documents are **not highly interactive**. They might include simple features like a clickable link or table of contents, but they don't include sophisticated interactivity like drop-down menus and form fields.

- People are likely to **print** these documents, so they need to work well both as a printout and as an electronic document.

- People are **likely to convert these documents to PDF,** so we have to keep that in mind as we work.

Making Accessible Forms (a sidebar)

Slide has images with no additional text.

Figure 13: Slide includes two images. The first image is a screenshot of the MachForm application. The second image is a screenshot of the Microsoft Forms application.
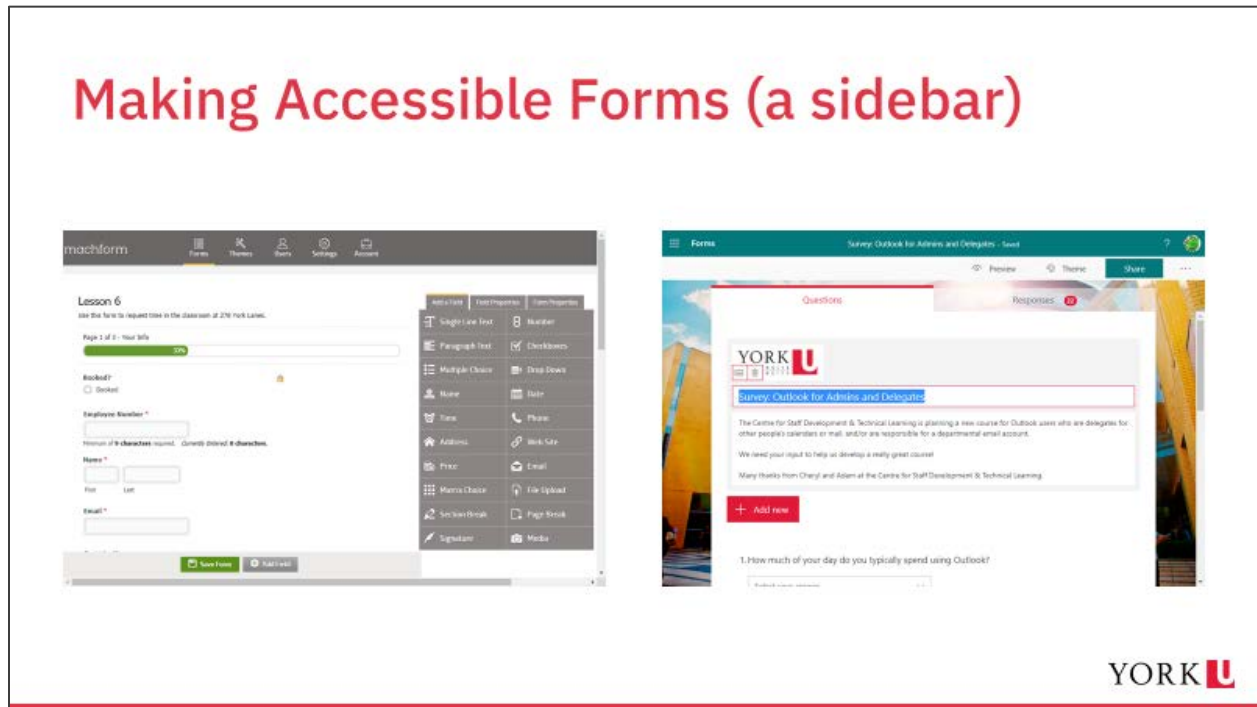
Script

This part of the video is a sidebar for people who create forms. If that doesn't interest you, you might want to jump ahead.

The simplest way to build an accessible form is to use a dedicated form system like MachForm or Microsoft Forms, both available for free from the University. Try to move your Word and PDF forms into these systems if you can.

Making a form accessible requires a sophisticated understanding of your software and how it codes things like input fields and labels under the visible surface, so you should only use a PDF or Microsoft Word form if you have found that an online form just will not work for your situation.

Word Form Pros and Cons

- Poor for gathering data you have to export
- Good for document templates
- Consider using an online form to collect data, and a Word template for supporting documents

Figure 14: Slide includes the Microsoft Word file icon.

Script

This video is a sidebar for people who create forms. If that doesn't interest you, you might want to jump ahead.
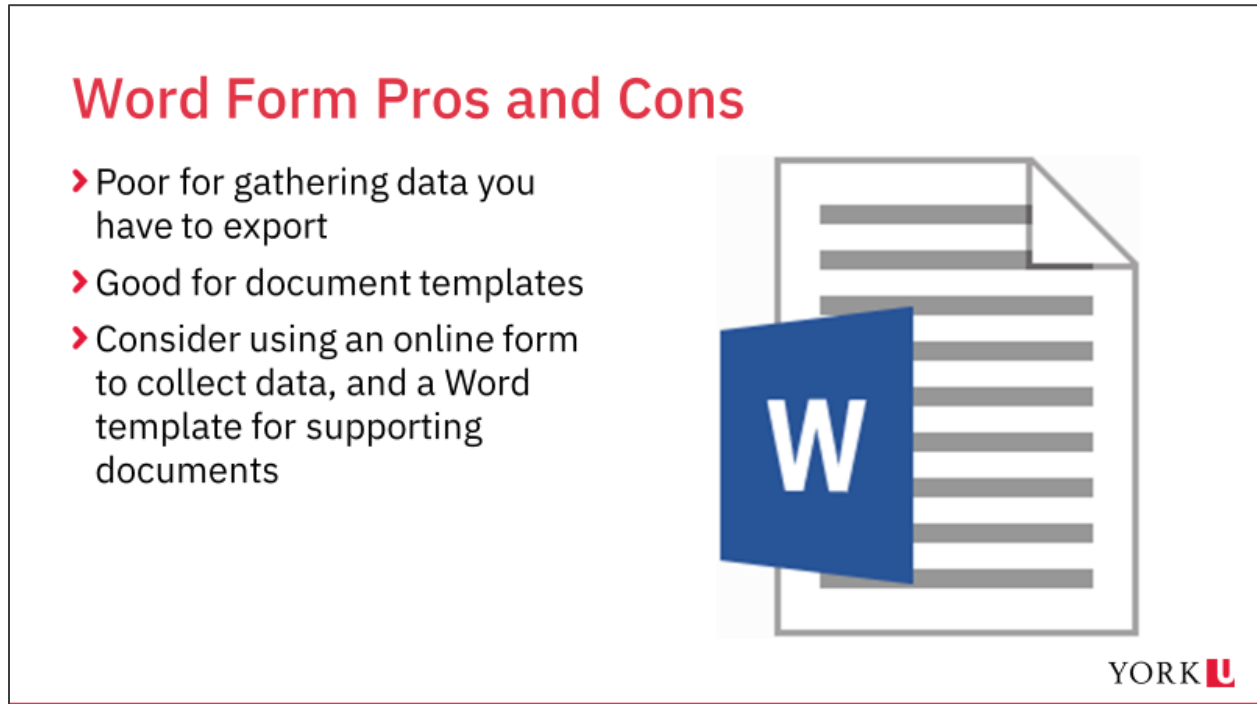
The simplest way to build an accessible form is to use a dedicated form system like MachForm or Microsoft Forms, both available for free from the University. Try to move your Word and PDF forms into these systems if you can.

Making a form accessible requires a sophisticated understanding of your software and how it codes things like input fields and labels under the visible surface, so you should only use a PDF or Microsoft Word form if you have found that an online form just will not work for your situation.

PDF Form Pros and Cons

- Expensive software
- Steep learning curve
- Better for gathering data than Word
- Poor for document templates

Figure 15: Slide includes the PDF file icon.
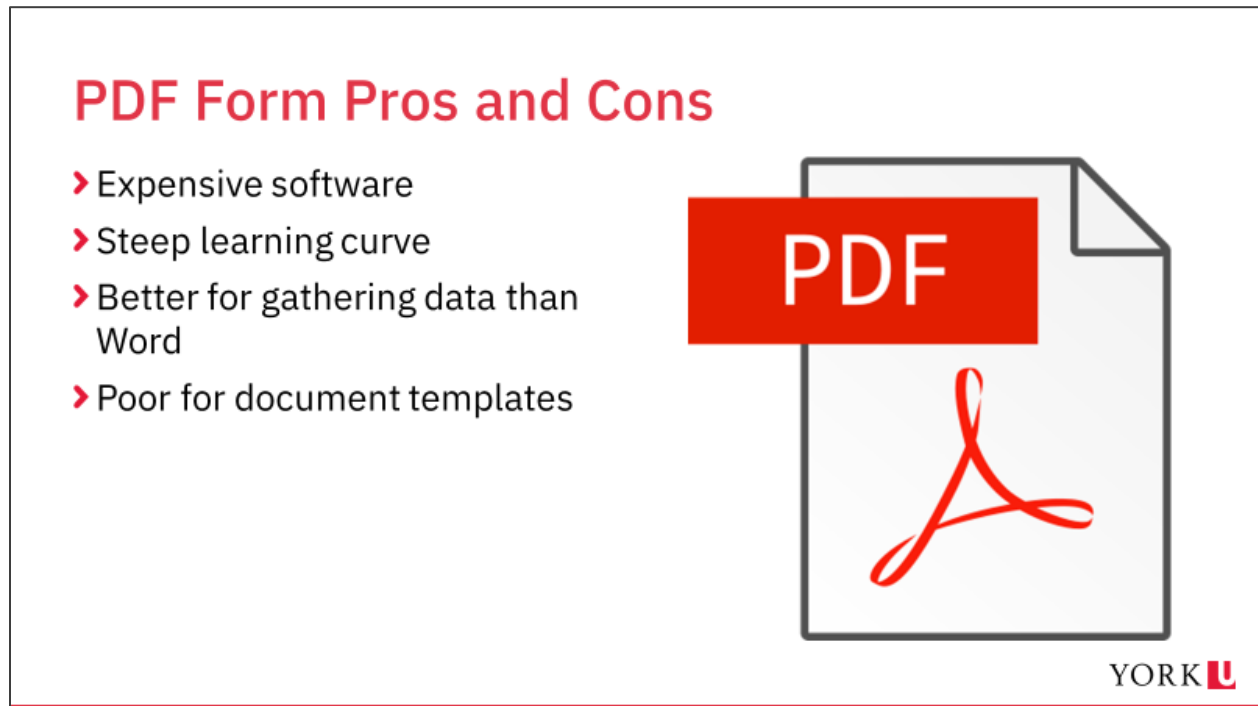
Script

With regard to PDF forms:

- To make an accessible PDF form, you will need professional software that supports accessibility, such as Adobe Acrobat DC, and you'll need to dedicate some time to training or updating your skills. LinkedIn Learning has excellent courses on how to make accessible PDF forms.

- Creating a PDF form is much more difficult than using a dedicated form system, but to gather data that you might need to work with later, it's preferable to Word. Adobe Acrobat does offer a way to extract the data from one or more PDF forms at a time.

- PDF isn't a good format to use when people need to enter long paragraphs of text, as it doesn't handle page breaks nicely like Word does, unless you're willing to invest in additional expensive software that isn't supported at the University.

Accessibility Workflow

Slide includes a diagram with text, described in the caption.

Figure 16: Slide includes a diagram illustrating the accessibility workflow: Starting with an accessible Word source document, publish an accessible PDF. Edit the source document and republish the PDF if needed.
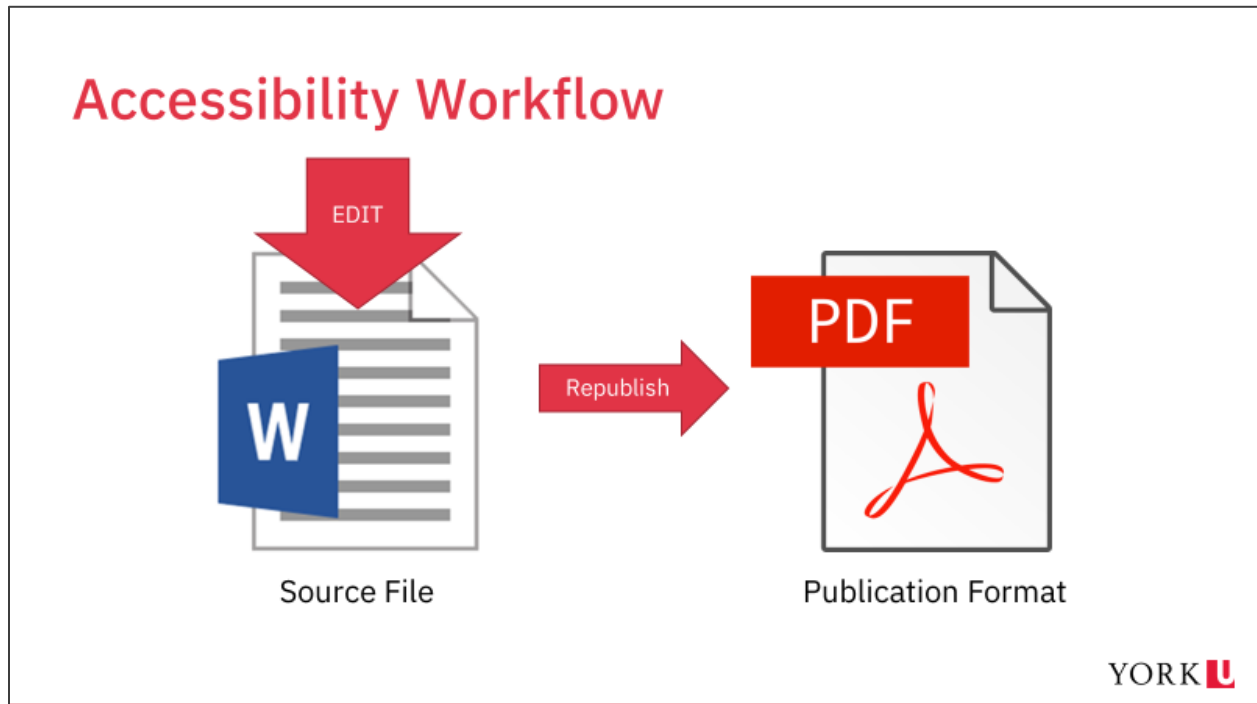
Script

Here's an overview of how to make an accessible document and publish it as an accessible PDF.

1. Start by working in the original source document, like a Word file. Do everything you can to make the original document accessible directly in Word.

2. Convert the document to a PDF in a way that maintains the accessibility work you've already done. There are accessible and *in*accessible ways to make a PDF. We will cover them in the demo, and they're listed on the course handout. (Spoiler alert: don't use the Print to PDF feature!)

3. Always keep your original Word source file. If you discover an issue that you can fix in Word, fix it there and re-create the PDF. In most cases, this is the simplest thing to do.
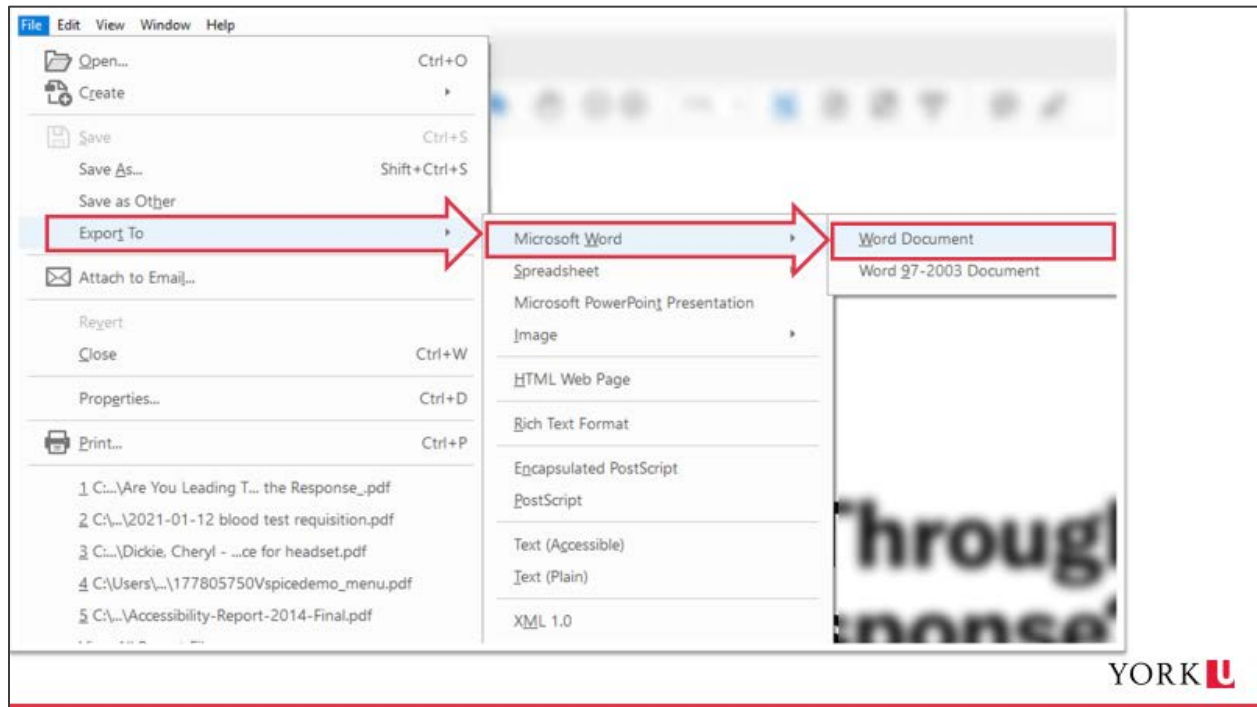
Think of PDF as a publication format: ideally, a PDF should be *easy to replace* when you update the source file.

Convert PDF to Word

Slide has a screenshot but no additional text.

Figure 17: Slide includes a screenshot showing steps of exporting a PDF to a Word document in Adobe Acrobat Pro, using the commands File > Export To > Microsoft Word > Word Document.

Script

If all you have to start with is a PDF, you can convert that to a Word document and make a new source file. You can convert a file using Adobe Acrobat Pro, or one of many free online services.

Most people *don't have to* learn all the ins and outs of editing directly in a PDF file. For most reports and similar documents, even book-length ones, you can make a good accessible PDF directly from Microsoft Word without any other software.

If you create very sophisticated marketing materials with lots of graphics or complex layouts, you may need to do additional work directly in software like Adobe Acrobat Pro to touch up the PDF for accessibility.

This workflow applies not only to Word, but to any software you use to create documents. Because we focus on accessibility principles, most of what you learn about making an accessible Word document applies to other kinds of documents as well.

Can't a Computer Do This for Me?

- Doesn't "understand" the document
- Can identify only mechanical issues
- Limited set of rules

Figure 18: Slide includes two images. First image shows a brain in the silhouette of a head. Second image is a screenshot of the Accessibility task pane in Word showing no accessibility issues found.

Script

Here's a question I get frequently. Can't a computer do this for me?

If I run an accessibility-checking tool, do what it tells me to and get a green check mark, the document is accessible, right?

No. Not necessarily!

To make a document accessible is to make it **perceivable and understandable**. A computer cannot understand the meaning of a document, so how can we allow it to judge accessibility for us?

An accessibility checker *can* be useful in pointing out mechanical issues. For example, it might tell you that the alt text is missing on an image. But it can't tell you if existing

alt text communicates what an image means in the context in which it is used. Only *you* can judge that.

In addition, checkers are limited to the rules programmed into them—they don't check everything. Recently, I heard an opinion from the CNIB that on average only about 60% of the potential issues in a document are detectable with automated accessibility checkers.

I have seen completely inaccessible documents pass all the checks in an automated checker. And I have seen high-quality, accessible documents that had a few unresolved issues in the checker.

When it comes to making a document accessible, there are some helpful tools at our disposal, but we must develop our judgement and not rely on computers uncritically.

Demo Agenda

- Structuring a document
- Writing clearly
- Formatting text
- Image
- Charts and diagrams
- Accessibility Checker
- Convert to accessible PDF

Figure 19: Slide listing the agenda for the live demo, with an image of a laptop computer on a desk.

Script

Let's look ahead to the live demo, where we'll focus on specific accessibility guidelines and techniques.

First, we'll look at structuring documents. This includes formatting headings, lists and tables correctly so that adaptive software like a screen reader can detect the various kinds of content in your document.

Next, we'll talk about writing clearly. This includes how to write hyperlinks that are specific and clear.

We'll look at guidelines for formatting text, including font sizes, font choice, and use of colour.

We'll talk about how to write good alternative text for images and how to ensure that they are detectable by a screen reader. Then we'll look briefly at complex graphic objects like charts and diagrams.

Throughout, we'll use the Accessibility Checker in Microsoft Word, examine its strengths and weaknesses, and introduce you to some additional ways to check your document.

As we approach the end of our time, we'll see how to convert an accessible Word document to an accessible PDF.

Reference Guides

- [Understanding Document Accessibility](#)
- [WebAIM: Word Accessibility](#)

Figure 20: The original slide included a short video tour of the Understanding Document Accessibility website. This image shows the cover of the recommended reference guide titled Understanding Document Accessibility: A Reference for Creating Accessible Office Documents. Author is Digital Education Strategies, The Chang School. Corporate logo of Ryerson University: The Chang School of Continuing Education.
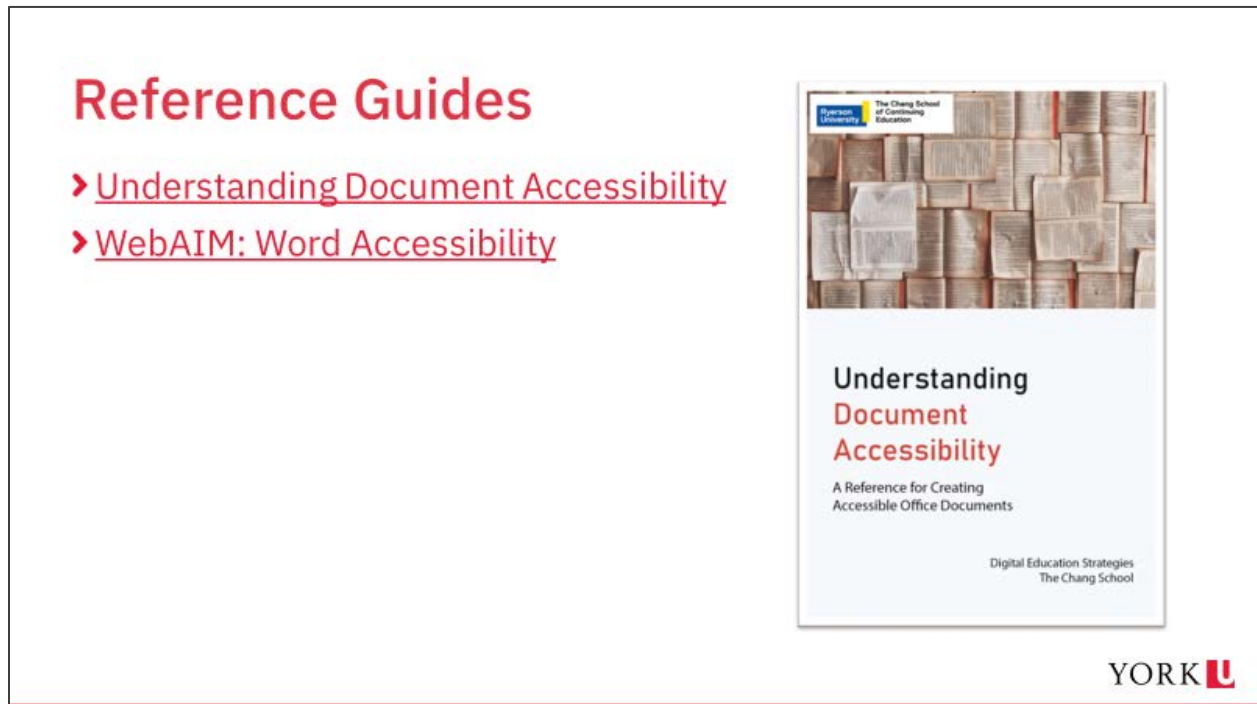
Script

You will need some reference material when you get into practising accessibility on your own.

This website, [Understanding Document Accessibility, from The Chang School at Ryerson University](#), provides a comprehensive guide you can download or browse online.

Consider this the "course manual". Everything we show you in the demo is addressed in here.

The site starts with an overview of accessibility issues that is well worth your time to review.

Following that, it offers a series of guides for the different types of software you might use.

Let's say I'm developing an Excel workbook.

I'll scroll down to the section on Spreadsheet Applications and click into the guide for the version of Excel I use, Office 2016/2019.

I see a list of accessibility techniques. If this is the first time I've worked on making an accessible Excel file, I can work through this like a checklist to teach myself. But if I need a refresher on a specific area I can jump directly to that point.

Let's look at Provide Text Alternatives for Images and Graphical Objects.

The guide explains why it's important to include alternative text and lists tips on how to write useful alt text. Below that, it takes me step by step through how to add alt text in my software.

These guides will help you to expand on what you learn in our Word demo to what you do with the other software you use.

Another resource we encourage you to use is the Web Accessibility in Mind (WebAIM) site that I mentioned in an earlier video. WebAIM provides their own set of guides for how to make accessible Word, PowerPoint and PDF documents, and we provide links to them on the course handout.

Thank you!

Find recordings of the live demo and more resources at the Accessible Documents Learning Package.

Figure 21: Thank you slide with image of laptop computer on a desk.