

Slide 1 - Accessibility Assessments

Accessibility Assessments



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Welcome, everyone, to the Accessibility Assessments lecture.

We'll talk about what an accessibility assessment is and how to conduct one. You'll actually be conducting two assessments: one as a team in Assignment 4A and one individually in Assignment 5.

Slide 2 - Assessment vs. Audits

Assessments vs. Audits

- Assessments
 - Quick review to uncover issues
 - Does design meet **guidelines**?
 - Usually performed prior to user testing
- Audits
 - More formal than assessment
 - Does design meet **standards, laws**?
 - Usually performed prior to product launch (but should happen sooner!)



You can Google 'accessibility assessments' and 'accessibility audits' and come up with numerous definitions for each. Some sources state they are the same thing. Some state they are different. For the purposes of this class, we are treating them as separate evaluations because they really are different.

Accessibility assessments focus on identifying specific issues, like missing alternate text or insufficient color contrast, and verifying that accessibility guidelines are met.

Assessments can be done quickly and efficiently using a combination of manual and automated testing tools that measure adherence to guidelines.

Assessments can also involve testers navigating the site or document to uncover barriers that might not violate industry standards but still make it difficult for people with disabilities to use.

Since assessments are a quick review, several can be performed throughout the design process.

Accessibility audits provide a more detailed review of the product's overall accessibility by examining whether it adheres to industry standards such as the web content accessibility guidelines.

Audits typically involve a combination of automated testing tools and expert evaluations. And, normally, there is only one or two done because of the breadth of the work.

The audit report establishes steps needed to improve accessibility and identifies any key concepts that could limit future issues.

Both assessments and audits require the use of methods and tools to complete. Some of the methods and tools are the same, but others are not. Check the Assessment Methods and Tools lecture for more information.

In addition, both take time. Even though an assessment is a, quote, unquote, quick review, it doesn't mean it takes just a few minutes. A thorough assessment can take anywhere from a few hours to a few weeks, depending on the type and depth of the assessment. Audits can take even longer.

For this module and the next, we'll be exploring assessments, which is now circled in red on the screen.

Slide 3 - Why should I conduct an assessment?

Why should I conduct an assessment?

- Quick check of design against guidelines and/or principles
- Find “low-hanging fruit” accessibility gaps in design
- Use assessment to plan formal audit



So why would you conduct an assessment? Why not just go straight for the audit?

As mentioned on the last slide, audits are much more involved than assessments. Performing an audit means checking designs against industry standards and whether or not the product is compliant with laws and regulations. Performing an audit using WCAG on a website takes time. A lot of time. WCAG two point two has eighty seven success criteria.

If you perform an assessment first, you can find the gaps in accessibility guidelines that can be adjusted prior to the audit. Making those assessment changes will help you plan a smoother audit since you'll have fixed some of the common issues that would have been flagged.

Also, remember that following guidelines can lead to better compliance with accessibility legislation. This gives you a jump start on making sure the design is in alignment with laws and regulations. It also gives you a jump start on planning a more involved audit.

Slide 4 - How to conduct an assessment?

How should I conduct an assessment?

- Choose product or interface
- Choose guidelines and/or principles
- Rate elements against guidelines and/or principles
- Provide examples for non-adherence
- Report findings
- Present recommendations

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The process for conducting assessments is pretty straightforward.

Choose the product, then choose the guidelines and or principles against which you want to rate the product.

If something does not adhere to the guideline or principle or standard, provide examples.

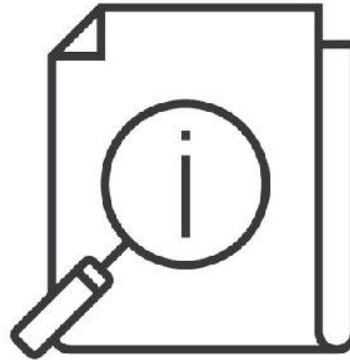
Then you will report the major findings, which usually is in the form of recommendations.

In simple assessments, there may not be sketches for how improvements could be made, but you could use annotated screenshots where you visually point out accessibility issues. However, in more complex assessments and in audits, you want to present those recommendations in a visual way through designing sketches or prototypes.

Slide 5 - Guidelines' role in assessments

Principles' & guidelines' roles in assessments

- Serve as benchmark against which accessibility is measured
- Serve as checklist of evaluation criteria
- Provide a measurable framework for evaluation



The guidelines serve as a benchmark from which to measure accessibility.

A benchmark is a method that uses metrics to show how something compares or performs against something else. For example, a benchmark for user experience is to compare a product to UX best practices.

The same rule applies to accessibility. You are evaluating a design against guidelines to evaluate its overall performance and adherence.

Guidelines and principles help you evaluate various aspects of the design, such as color contrast, keyboard accessibility, screen reader compatibility, and text readability.

For your assessment Assignment 4A, you will be using some of the guidelines discussed in the Accessibility Guidelines lecture.

Accessibility guidelines and principles also provide a structured, measurable framework for evaluating a design during an assessment. Meeting principles and-or guidelines are the measures for if a design is accessible to users with disabilities and for as many people as possible.

Slide 6 - For team assessment - Assignment 4a

For team assessment - Assignment 4a

4a

- Instructor-provided cross-media product
- **Principles** = Morville's UX Honeycomb
- Review against common **guidelines**
- Review for accessibility with screen readers, keyboard access, color contrast
- Summarize findings, provide recommendations

The assessment for Assignment 4A is a smaller scale evaluation that each team will conduct.

As a team, you'll choose between two cross-media examples for the team to tackle.

Review the product against the six honeycomb pieces as pass or fail. If there's a fail, give examples.

And for the seventh, accessibility, you'll review the site for accessibility with screen readers, keyboard access, and color contrast ratios.

The team will assemble a summary of the findings and some recommendations for what can be done to fix any issues. The team's summary will be posted to the discussion board, and each of you will write a reflection of how the assessment and teamwork went.

Slide 7 - UX principles

Team assessment principles > Honeycomb

- Peter Morville's UX Honeycomb
- Review other six (6) for compliance



Image adapted from original honeycomb, Peter Morville, <https://www.semanticstudios.com>

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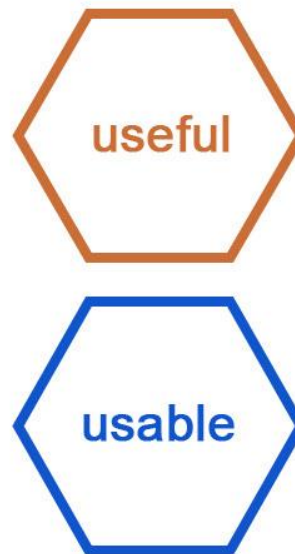
We reviewed the UX Honeycomb principles in the UX and Accessibility Principles lecture. As mentioned, accessibility is the goal and the other six: useful, usable, findable, credible, valuable, and desirable, need to be in adherence in order to have a better chance of being accessible to as many people as possible.

For the accessibility itself, you'll also review the products for acceptable color contrasts and accessibility with keyboards and screen readers..

Slide 8 - Morville principles > useful & usable

Honeycomb > useful & usable

- Useful is:
 - of value to users
 - meeting users' needs
 - allowing users to accomplish goals
- Usable is:
 - easy to use
 - easy to understand



4a

Image adapted from original honeycomb, Peter Morville, <https://www.semanticstudios.com>

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To review, useful means it is of value to users and meets a need or needs of a user, especially when it comes to accomplishing goals on a website, such as buying a product or in a document, such as learning important information.

Usable means the product is easy to use and easy for users to understand how it works.

Slide 9 - UX principles > findable

Honeycomb > findable & credible

- Findable is:
 - easy to navigate
 - easy for users to find information
- Credible is:
 - trustworthy
 - consistent
 - matching the company's brand



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Image adapted from original honeycomb, Peter Morville, <https://www.semanticstudios.com>

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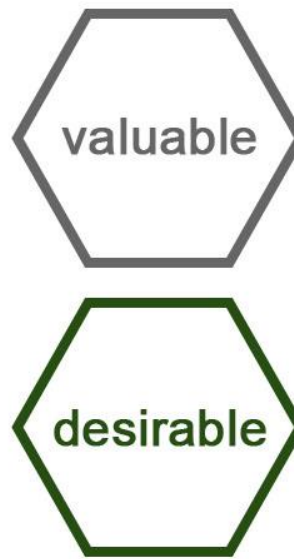
Findable overlaps a bit with use usable but has a more functionality focus, making sure users can navigate and find the information or accomplish the goal with the product.

Credibility can be a deal killer with users. If they do not believe the information you are providing is trustworthy, they will leave and may not come back. Credible also is visual in that you've created a consistent design that matches the company and that the information you're providing is consistent.

Slide 10 - UX principles > valuable & desirable

UX principles > valuable & desirable

- Valuable is:
 - (uniquely) valuable to users
 - valuable to stakeholders
- Desirable is:
 - visually appealing
 - offering what users need
 - standing out over other products



4a

Image adapted from original honeycomb, Peter Morville, <https://www.semanticstudios.com>

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A product must provide value to both its owners and users.

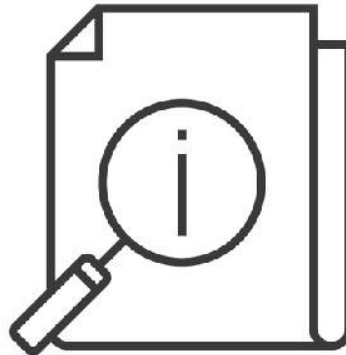
Desirable has some crossover with valuable because if something is not valuable, likely it wouldn't be desirable. Desirability isn't just visual appeal but also is ensuring users' needs are at the forefront.

Slide 11 - UX principles > valuable

Team assessment guidelines

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- Appropriate alt text for all images
- Appropriate use of headings
- Evidence of plain language
- Appropriate keyboard access
- Acceptable color contrast



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Another part of the assessment has to do with guidelines, specifically the five overarching guidelines of text alternatives, especially alt text for all non text content; logical structure with appropriate use of headings; evidence of plain language that's free of jargon or abbreviations; checking keyboard access to make sure interactive elements are accessible; and checking the color contrast.

And how will you be testing these guidelines? By using specific methods and tools.

Slide 12 – Accessing guidelines > Screen readers

Assessing guidelines > Screen readers

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- Check for:
 - image alt text
 - headings
 - plain language
- Tools:
 - VoiceOver (Mac built-in)
 - Navigator (Windows built-in)
 - NVDA (Windows download)



The first method is checking for alt text and headings and plain language.

An effective tool to do this is a screen reader. The most well known is JAWS, j a w s. I would love to have a license for the entire class to share, but I don't even have one. It's about a thousand dollars per license. But there are others that are free. They aren't as complex but will catch many of the accessibility issues.

You can choose from the three on the screen. VoiceOver, which is a native app on Apple devices, including laptops and desktops. Navigator, which is built in for Windows. And NVDA, which is only available for Windows operating systems and does require you to download it.

If there is another you've used in the past and still have access to, feel free to use that instead.

Slide 13 - Accessing guidelines > Keyboard Access

Assessing guidelines > Keyboard access

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- Check for:
 - appropriate navigation using keyboard only
- Tools:
 - Tab key
 - Enter key
 - Space bar
 - Arrow keys

Tab key: Use the Tab key to navigate to the next interactive item (navigation, links, buttons, form fields). Shift+Tab navigates to the previous item.

Enter key: Press Enter key to activate interactive items (navigation, links, buttons, form fields).

Space bar: Use space bar to scroll down a page and to select/deselect checkboxes on forms.

Arrow keys: Down arrow scrolls down a page; Up arrow scrolls up a page.

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The next method is ensuring the content, especially interactive elements, are accessible only through the keyboard and are not reliant on a user using a mouse or a pointing device.

Logical structure and especially headings figure into this, just like screen readers.

How you accomplish checking for keyboard accessibility is very easy. Use the keyboard! Utilize the tab, enter, and arrow keys, as well as the space bar.

The yellow box on the right side of the slide is from the Accessibility in Design Part 2 lecture and reads as follows: Tab key: Use the tab key to navigate to the next interactive item, such as navigation, links, buttons, form fields; Shift-Tab navigates to the previous item; Enter key: Press enter key to activate interactive items:

navigation, links, buttons, form fields, etc.; Space bar: Use the space bar to scroll down a page and to select or deselect checkboxes on forms. Arrow keys: Down arrow scrolls down a page. Up arrow scrolls up a page.

Also, check to see if there are any visual cues such as form fields being highlighted or text areas being highlighted, letting the user know where they are on the page.

Slide 14 - Accessing guidelines > Color contrast

Assessing guidelines > Color contrast

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- Check for:
 - appropriate color contrast
- Tools:
 - WebAIM color checker
 - AudioEye color checker



The final method is making sure there is appropriate contrast between the foreground and background colors.

As mentioned in a previous lecture, every color has a HEX or h e x value.

One great tool for grabbing that HEX value is the ColorZilla plug in for Chrome and Firefox, which will allow you to capture colors from websites inside the browser and documents and PDFs outside the browser. There's a link to that in Canvas.

Once you determine the colors, you can check the color contrast ratio using several online tools, including WebAIM's and AudioEye's color checkers. Again, if you have used another in the past or are curious about using something different, you can, but make sure it does calculate the contrast ratio.

Slide 15 - Don't forget to view the lectures on methods & tools

**View the lectures on
assessment methods & tools**



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Thanks for watching the lecture on accessibility assessments. Make sure to view the lecture on more methods and tools that are available to you for this module's assignment and the next.