
10.2 What are

(i) auditory icons

Auditory icons are short sound messages that convey information about an object, event or situation. Originally, auditory icons have been used in computer interfaces, but are nowadays found in many other fields. In this review article, an overview is given of the main theoretical ideas behind the use and design of auditory icons. We identified the most common fields in which auditory icons have been used, and analyzed their acoustic characteristics. The review shows that few studies have provided a precise description of the physical characteristics of the sounds in auditory icons, e.g., their intensity level, duration, and frequency range. To improve the validity and replicability of research on auditory icons, and their universal design, precise descriptions of acoustic characteristics should thus be provided.

(ii) earcons?

Earcons are a common feature of computer operating systems and applications, ranging from a simple beep to indicate an error, to the customizable sound schemes of modern operating systems that indicate startup, shutdown, and other events. The name is a pun on the more familiar term icon in computer interfaces.

How can they be used to benefit both visually impaired and sighted users?

- An Auditory Icon makes use of natural everyday sounds in order to represent objects and actions on the interface. For example, as a file is dragged across the screen the noise of paper scraping can be heard.
- An Earcon is a structured audio message based on musical sounds which conveys to the user information about the tasks being carried out. For example, while scrolling up and down a page the user gains information on their place in the document. At the top of the document the pitch of the note given is high; as the user scrolls down the pitch decreases.

10.4 Take your university website or another site of your choice and assess it for accessibility using Bobby. How would you recommend improving the site?

1. Accessibility is not a barrier to innovation - Accessibility will not force you to make a product that is ugly, boring, or cluttered. It will introduce a set of constraints to incorporate as you consider your design. These design constraints will give you new ideas to explore that will lead to better products for all of your users. Design for the diverse set of users who will interact with your products. The Felician website is used by different aged, different cultured and different intellects. So this was considered while making the Felician website.

2. Don't use color as the only visual means of conveying information.

This helps users who are unable to, or have difficulty with, distinguishing one color from another. This includes people who are color blind (1 in 12 men, 1 in 200 women), have low vision (1 in 30 people), or are blind (1 in 188 people). The Felician website has used standard colors and not a lot of bright colors, they are easily distinguishable. **Use color to highlight or complement what is already visible.**

3. Ensure sufficient contrast between text and its background.

[According to the WCAG](#), the contrast ratio between text and a text's background should be at least 4.5 to 1. If your font is at least 24 px or 19 px bold, the minimum drops to 3 to 1. This guideline helps users with low vision, color blindness, or worsening vision see and read the text on your screen. The Felician website takes good consideration of this, the background contrast is nicely done.

4. Provide visual focus indication for keyboard focus.

Let's take a moment to give thanks for the reset style sheet and all of the utility it has given the modern web designer. Without reset style sheets, it would be much more difficult to create a consistent experience across different devices and browsers. Let's now take a moment to blame reset style sheets for playing a role in one of the most widespread accessibility blunders on the Internet. The styling in Felician website is well done, it helps with consistency

5. Be careful with forms.

In recent years we have experienced a de-evolution in form fields. Modern designs have foregone traditional identifying attributes and interactive affordances in favor of a more minimalist approach. Today's forms lack two specific items that are vital for accessibility: clearly defined boundaries and visible labels. In the Felician website the boundaries aren't well and it's hard to know if they are normal texts or labels

6. Avoid component identity crises.

Q: When is a menu no longer a menu?

A: When it's a non-modal dialog.

This question is at the core of today's biggest web accessibility problems. In order to understand this fully, consider the W3C's Authoring Practices for Design Patterns. This is the guide for how to build an accessible version of many of today's common design patterns including menus, modals, autocompletes, trees, tab sets, and many others. The Felician website has perfect fit for all of the above named menus.

7. Don't make people hover to find things.

This principle mainly serves people with motor-related disabilities. This includes keyboard-only users who have vision, and those who use speech recognition tools like [Dragon NaturallySpeaking](#) to interact with web pages. Keyboard users and assistive technologies like Dragon rely on actionable items being visible on the screen. If a link or button cannot be seen by Dragon, it cannot be verbally "clicked". If a keyboard-only user cannot see that a button exists on a page, how can we expect them to navigate to the empty space where it will ultimately appear? In this case the Felician website was a little inconsiderate, there's a lot of hovering required before finding what's needed

10.7 Use the screen reader simulation available at www.webaim.org/simulations/screenreader to experience something of what it is like to access the web using a screen reader. Can you find the answers to the test questions on the site?

This site is not working, it requires a shockwave player plugin which was discontinued by adobe in 2019

This study resource was shared via CourseHero.com