

# **Designing for** Accessibility

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**This document outlines considerations  
when designing for users:**

who have Autism  
who use Screen readers  
with Low vision  
with Physical or Motor disabilities  
who are Deaf or Hard of hearing  
with Dyslexia  
with Anxiety

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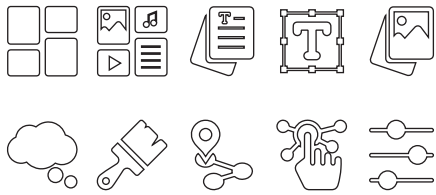
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**Designing for**

**Accessibility**

# PREFACE

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**Prepared by a group of students from RMIT's Master of Communication Design program (2023), this document serves Arts House and aims to assist individuals engaged in disability-focused design work, providing guidelines for inclusive design that consider users with anxiety, low vision, dyslexia, deaf or hard of hearing individuals, physical or motor disabilities, those who have Autism, and users who rely on screen readers.**

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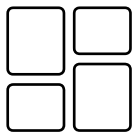
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# Designing for users with Autism

Autism spectrum disorder (ASD) is a condition that affects how the brain develops and functions, resulting in a developmental disability. Individuals with ASD frequently experience challenges in social communication and interaction, as well as exhibit restricted or repetitive behaviors and interests. Additionally, people with ASD may demonstrate unique patterns of learning, movement, or attention.

## DO THIS!

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### Layout

- Use a simple and structured layout
  - Utilize appropriate spacing and margins
  - Communicate information consistently and in a logical order
- 



### Content

- Write clear and concise content
  - Try to avoid or explain technical terms and difficult vocabulary and exclude unnecessary information
  - Write consistently to prevent confusion
-



## Text

- Use clear and appropriate fonts
- Provide alternative text
- Consider legibility in terms of font, size, colour, etc.



## Imagery

- Use simple and clear images
- Convey emotions through facial expressions and body language
- Use clear contrast and colour



## Visual and verbal metaphors

- Use consistent visual metaphors
- Use concrete imagery or metaphors to explain abstract concepts



## Colour

- Use limited colours to avoid sensory overload
- Consider contrast to ensure visual distinction
- Adjust colour contrast to prevent glare or discomfort



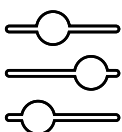
## Navigation

- Use concise and consistent navigation
- Maintain consistency by placing menus in fixed locations
- Clearly indicate navigation through text, icons, etc.



## Interaction

- Make interaction simple and clear
- Use predictable patterns of interaction
- Provide feedback for user actions



## Personalization

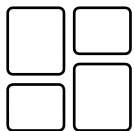
- Provide customization options for the user
  - Allow users to adjust settings to meet their individual needs
  - Consider the user's preferences, abilities, and interests
-

# Designing for users who use Screen readers

A screen reader is a technology that helps people who have difficulties seeing to access and interact with digital content, like websites or applications through audio or touch. The primary users of screen readers are people who are blind or have minimal vision.

## DO THIS!

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### Layout

- Follow a linear logical layout
- Build for keyboard use or screen tap use in case of mobile devices



### Content

- Spread content all over a page
  - Write descriptive links and headings
  - Structure content using HTML5
  - Describe images and provide transcripts for video
-





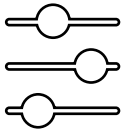
## Imagery

- Place a picture in line with the text
  - Provide alternative text for words in a picture that are meant to be read
  - Upload vector images (SVG) or pictures with enough extra resolution to stay sharp when enlarged
- 



## Colour

- Make sure selected colours for fonts and graphic elements have a lot of contrast against their background
  - Using contrasts to differentiate between things
  - Avoid using colour alone
- 



## Personalization

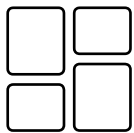
- Avoid Relying on Sensory Characteristics
  - Provide multiple means of understanding if your content is drawing attention to one of those attributes
-

## Designing for users with **Low vision**

Low vision can include partial sight in one or both eyes, blurry vision, tunnel vision, central field loss, and clouded vision. It affects 246 million people, or about 4% of the world's population.

### DO THIS!

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#### Typography

- Ensure text has good contrast against it's background
- Use a readable font size
- Avoid using Italics, slanted, small caps, or all caps
- A line spacing of 1.5 is recommended for users with low vision
- Choose typefaces with a taller 'x'-height
- Typefaces with large counters (white spaces) are easier to read
- Avoid ligatures



## Layout

- Use single column layout wherever possible
- Make sure design is responsive for different screen sizes



## Content

- Use clear hierarchy with headings and subheadings
- Use a combination of colours, shapes, icons and text to convey meaning



## Imagery

- Describe the appearance or function of an image on a page



## Colour

- Use high colour contrast
- Use patterns and textures instead of only relying on colours
- For charts and graphs, use values of a single colour



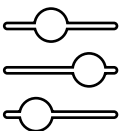
## Navigation

- Give a list of contents to navigate directly to sections of the document/ website



## Interaction

- For print, matte paper is recommended over glossy



## Personalization

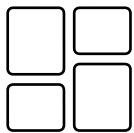
- Provide an accessibility menu, so users can adjust contrast, line spacing according to their preferences

# Designing for users with Physical or Motor disabilities

Motor impairment is the partial or total loss of function of a body part, usually a limb or limbs. It is the final pathway that causes physical disability in a wide range of diseases and health conditions. It can involve weakness, fatigue, impaired sensation, reduced balance, muscle contracture and poor co-ordination - common features of many health conditions and aging. If someone has an injury or disability that hinders normal physical functioning, they will be described as having a physical impairment. If they has a loss or limited function in their muscle control, movement or mobility, they will be described as having a motor impairment.

## DO THIS!

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### Layout

- Specific text and image display methods
- Give users enough time to read and use content
- Enough line spaces



### Content

- Make sure all content and design follow a logical structure
- The reading order should match the visual order
- Use bias-free-language



## Text

- Make text readable and understandable
- Use real text instead of text images
- Use adequate font size



## Visual and verbal metaphors

- Provide good contrast
- Colours with Good Contrast



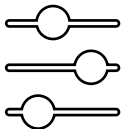
## Navigation

- Use the Search Field feature
- Use "Jump to the end / top" button
- Large Links, Buttons, and Controls
- Provide shortcuts / Links



## Interaction

- Reducing needs for a lot of clicking
- Expand the click range of the mouse
- Provides a play/pause button of animation, video, and audio



## Personalization

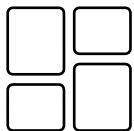
- Voice recognition software
  - Eye-tracking devices
  - Help users avoid and correct mistakes (while typing)
  - Freely adjust the size of text and pictures
  - Do not use content that causes seizures
-

# Designing for users who are Deaf or Hard of hearing

Deaf usually refers to a hearing loss so severe that there is very little or no functional hearing. Hard of hearing refers to a hearing loss where there may be enough residual hearing that an auditory device, such as a hearing aid or FM system, provides adequate assistance to process speech.

## DO THIS!

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### Layout

- Use a linear and logical layout
- Break up content with sub-headings, images, and videos



### Content

- Use simple English and short sentences and always be to the point
  - A clear content structure
  - Offer all information that should be seen
  - Add subtitles and captions for audio and video
-



## Text

- Summarize the content of pictures, audio and video or have a visual description and transcripts
- Use legible fonts



## Colour

- Consider strong contrast for distinction
- It can help users reduce eye fatigue



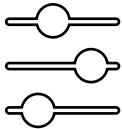
## Interaction

- Provide multiple contact options including a phone number, email, live web chat, online form and so on
- It should be easy to operate and understand



## Navigation

- Provide easy navigation to reach and access the required information within a few clicks
- Include a search button



## Personalization

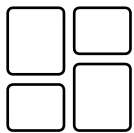
- Let users request an interpreter for an appointment
  - Allow users to change their caption font, colour, and background
  - It should be flexible enough for users to access. It should let users enlarge content using screen magnifiers and render using screen readers
-

# Designing for users with Dyslexia

Dyslexia is a specific learning disorder that is neurological in origin, meaning that it is brain-based. It is characterised by difficulties with accurate and fluent word reading and by poor spelling and decoding abilities that do not progress as expected

## DO THIS!

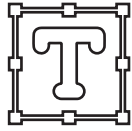
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### Layout

- Left align text, without justification. This makes it easier to find the start and finish of each line
- Avoid multiple columns (as used in newspapers)
- Write short simple sentences: 60 to 70 characters is optimal
- Break up the text with regular section headings in long documents and include a table of contents





## Fonts

- Use sans serif fonts
- Avoid using capital letter and uppercase letters for continuous text
- Lower case letters are easier to read
- Some dyslexic readers may request a larger font
- Larger tracking improves readability, ideally around 35% of the average letter width
- Avoid Underlining and italics as this can make the text appear to run together and cause crowding. Use bold for emphasis



## Text

- Be concise; avoid using long, dense paragraphs
- Write in simple clear language using everyday words
- Use images to support text
- Consider using bullet points and numbering rather than continuous prose
- Avoid double negatives



## Colour

- Use single colour backgrounds. Avoid background patterns or pictures and distracting surrounds
- Use sufficient contrast levels between background and text
- Consider alternatives to white backgrounds for paper, computer and visual aids such as whiteboards. White can appear too dazzling
- When printing, use matt paper rather than gloss. Paper should be thick enough to prevent the other side showing through
- All written communication can be made easier for dyslexic readers by adopting these principles

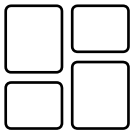
#Logical #Hierarchy #LineSpacing #Concise

# Designing for users with Anxiety

Anxiety is a state of worry, unease, or apprehension about potential future events or situations

## DO THIS!

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### Layout

- Straightforward navigation
- Interaction



### Text

- Make important information clear
  - Honest copy
-



## Imagery

- Soft/ Non-triggering colours
- Minimalism



## Navigation

- Don't leave users questioning what answers they gave
- Let users check their answers before they submit them



## Interaction

- User-focused experienced
  - Give users enough time to complete an action
  - Don't leave users confused about next steps or timeframes
  - One main call to action
  - Don't make support or help hard to access
-

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