Scratch Jr tactile

Tips of digital accessibility

Digital Accessibility

Building Bridges to an **Inclusive** Society

In an increasingly digitized world, it is essential to ensure that all people, regardless of their abilities or disabilities, have equal opportunities to access and participate in the digital environment.

This guide is designed to inspire and empower designers, developers, content creators, and everyone else who wants to create accessible digital experiences for everyone. Here you will find valuable tips and strategies to break down barriers and build bridges of inclusion in the digital world.

In our hands is the ability to remove limitations and expand possibilities for millions of people. Every line of code we write, every design we create, can make a difference in the lives of those who face barriers in the digital environment.

Join this journey towards digital accessibility, where creativity and empathy combine to build an inclusive society, where everyone can participate, express themselves and thrive.

INDEX

Bases of digital accessibility

01 Presentation

03 Bases of digital accessibility

04 Intro

05 Accessible design principles: **Perception**

06 Accessible design principles: **Operability**

07 Accessible design principles: **Comprehension**

08 Accessible design principles: **Compatibility**

Tips to promote fairness in the classroom

10 General indications

13 Visual impairment

16 Hearing impairment

18 Motor disability

20 Cognitive disabilities

23 High capacities

01

Bases of Digital Accessibility

Intro

Digital accessibility is not just a technical concept, but a fundamental pillar of a truly inclusive society.

Accessible design goes beyond simply meeting minimum accessibility standards. It is about considering the needs, perspectives and experiences of a wide variety of users at all stages of the design process.

When designing any resource, product, or interface, it is important to keep in mind certain general principles that ensure that it is accessible to all people, regardless of their abilities or needs.

The foundations of digital accessibility are based on carefully designed principles and guidelines to ensure that digital products are accessible to all people, regardless of their skills or abilities.

Here are some key foundations of digital accessibility:

Accessible design principles

Perception

Make sure that anyone, regardless of their abilities, can understand the information presented.

Readable text: Use clear fonts that are large enough so that the text is easy to read. Make sure there is enough contrast between the text and the background.

Alternatives for non-textual content: Provide alternative descriptions for images, graphics, or subtitles for videos and audios.

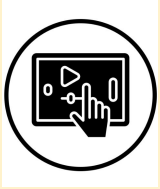
Clear organization: Use well-defined headings, lists, and paragraphs.

Visual and auditory indicators: use colours, icons or sounds to highlight key elements or convey relevant messages.

Accessible design principles

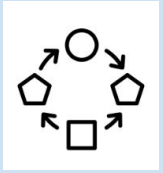
Operability

It ensures that any user can interact effectively and comfortably with the resource, product or service.



Accessible interactive elements: buttons, links and other interactive elements large enough and adequately spaced so that they can be easily selected.

Clear feedback: Immediate visual or audio feedback when users perform an action or interact with interface elements.



Flexibility and adaptability: Provides customizable options and settings to suit individual experience, preferences, and needs. For example, allowing users to adjust the size of the text, the colors or the playback speed of the videos.

Clear and understandable instructions: to guide users in using the resource, product or service. Explain the steps or processes sequentially and use examples or illustrations if necessary.

Accessible design principles

Comprehension

Design products, interfaces, or content in a way that is easily understandable by everyone, regardless of skill level, knowledge, or experience.

Clear and simple language: Use clear, concise, and easy-to-understand language. Avoid using jargon or complex terminology that may make it difficult for those unfamiliar with the subject to understand.

Logical organization: Structure information logically and coherently. Use headings, subheadings, paragraphs, and lists to break content into clear sections and make it easier to read and understand.

Avoid information overload: Divide the information into small sections and use visual elements such as charts, icons, or images to make it easier to understand.

Provides additional support: You can include links to additional resources, frequently asked questions, or a support system to resolve questions or problems.

Accessible design principles

Compatibility

Compatibility is essential to ensure that all people can access and use the content without restrictions. The idea is that you can seamlessly access and use the content, whether you're on a computer, tablet, or phone, and regardless of which browser you're using.

Adjustable to different sizes: It is always good that what you are designing adapts to different screen sizes.

Do tests: test the content on different devices and browsers.

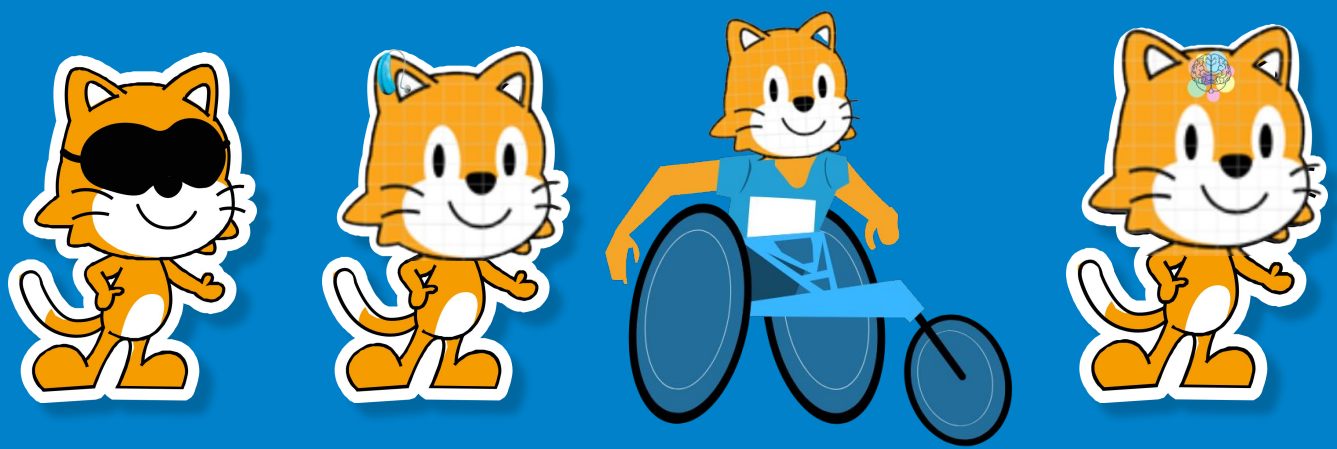
Accessible to all: It's important that your content is accessible to people who use assistive technologies, such as screen readers. To achieve this, use the correct formatting and tags, and test for accessibility.

Keep everything updated: Make sure your content is up to date and compatible with the latest technologies. Do regular checkups to keep everything running smoothly.

02

Tips to promote equity in the classroom

General indications



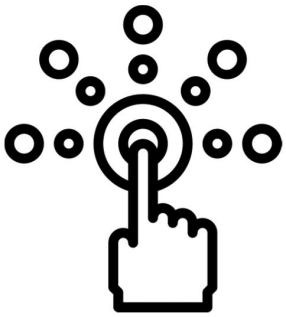
¡Meow!

Documents and multimedia

- Images with text description.
- Auditory alternative (or digital content).
- Simple and clear images

Websites and interactive applications

- Formatted titles (heading 1, heading 2…)



Events and face-to-face classes

All the above +:

- All the above +:
- Support at reception.
- Support during the event.
- Language: Simultaneous translation.
- Presentations in 2 or more languages.

Scratch Jr Tactile

Tangible educational resources

- Arrange the blocks and elements of Scratch Jr Tactile in a logical and coherent way, to facilitate understanding.
- It offers options to customize the difficulty of the program, allowing students to tailor the experience according to their abilities and preferences.
- Design activities that encourage collaboration between students with and without disabilities, so that everyone can participate and learn together.
- Consider the possibility of carrying out individualized evaluations to allow students to demonstrate their learning in a manner appropriate to their abilities.

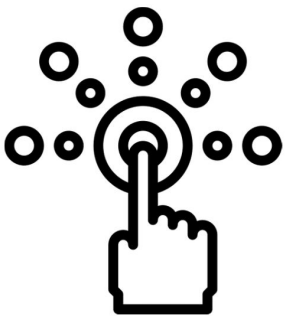
Visual impairment

Documents and multimedia

- Images with text description.
- Auditory alternative (or digital content).
- Simple and clear images

Websites and interactive applications

- Formatted titles (heading 1, heading 2…)



Events and face-to-face classes

- Tactile map.
- Information on the web.
- Accessible printed material: such as programs and brochures, be accessible in alternative formats, such as braille or electronic version.

Scratch Jr Tactile

Tangible educational resources

- Enrich the Scratch Jr Tactile Kit by incorporating additional tangible or textured elements.
- Provides supportive verbal or auditory instructions to guide visually impaired learners in creating programs.
- If necessary, use braille (from 7 years in the own language).

Hearing disability

Meow!

Documents and multimedia

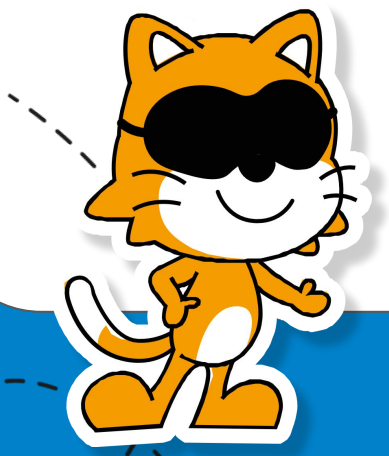
- Audios and videos with subtitles, transcription or sign language.

Events and face-to-face classes

- Talks and videos with subtitles, transcription or sign language (in your own language).
- Audio monitoring with headphones.

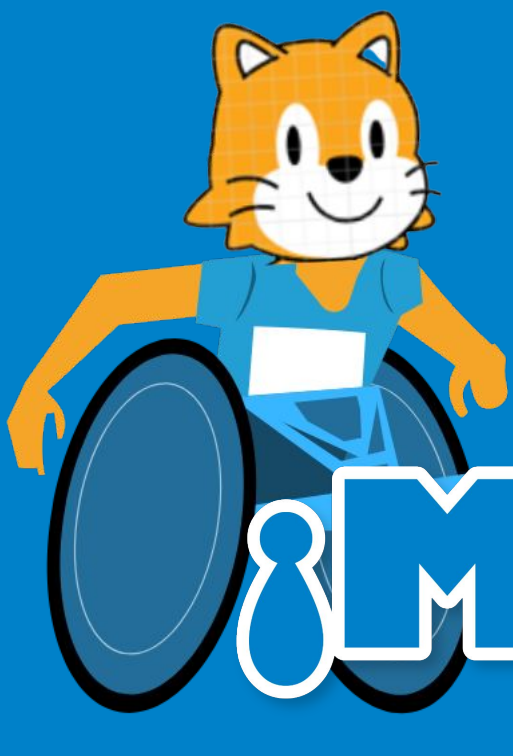
Scratch Jr Tactile

Tangible educational resources



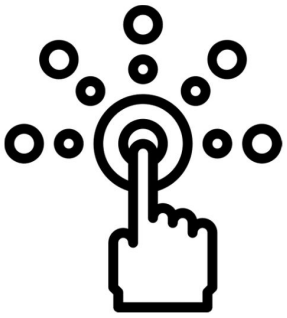
- It provides clear, visual instructions for all activities, so students with visual impairments can follow the flow of the activity without relying solely on audio.

Motor disability



¡Meow!

Documents and multimedia



- Interaction with assistive technologies (adapted keyboards, joysticks or giant buttons)

Events and face-to-face classes

Make sure that the space has:

- Ramps or elevators.
- Seats reserved for people with disabilities or reduced mobility.
- accessible restrooms
- clear signage
- accessible location

Scratch Jr Tactile

Tangible educational resources

- Design activities that encourage collaboration and teamwork, so that students with motor disabilities can actively participate with their peers.
- It implements a system that allows the blocks or elements of Scratch Jr Tactile to be positioned in a stable manner, preventing them from moving accidentally.

Cognitive disabilities

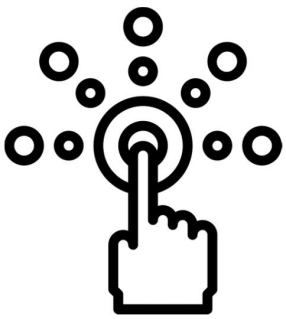
Meow!

Documents and multimedia

- Writing for easy reading: short sentences, large text, simple language.
- Use of icons or iconograms.
- repetition of key information

Websites and interactive applications

- Meaningful images and graphics that are relevant to the content and are accompanied by clear descriptions.



Events and face-to-face classes

- Give the necessary time.
- Offer themed customization options.
- rest spaces
- Fosters a welcoming and respectful environment for all people, showing empathy and understanding towards individual needs.

Scratch Jr Tactile

Tangible educational resources

- Intuitive icons, no need to read.
- At the student's pace.
- Customize the activities according to the preferences of the students
- Offers different levels of difficulty

High capacities

Meow!

Scratch Jr Tactile

Tangible educational resources

- It offers projects and challenges that can be scaled in complexity, allowing students with high abilities to find projects that challenge and stimulate them intellectually.
- Encourages students to explore and develop creative projects that go beyond basic activities. Provide time and space for them to explore their ideas and focus on projects that interest them.
- Offers additional resources and materials to expand students' knowledge and skills. They may include advanced tutorials, links to educational websites, or books related to programming and technology.
- Invite students to explore and experiment with additional tools or technologies that can be integrated with Scratch Jr Tactile Unplugged, such as the micro:bit or external sensors.
- Conduct advanced project and concept demos to inspire students and show them the potential they have to create complex and exciting projects.

"Digital equity in the classroom is the key that unlocks the doors of knowledge for all. Let's work together to build a future where every student has equal opportunities in the digital world!"

¡Meow!

Scratch Jr tactile

¡Meow!