

Live. Learn. Access

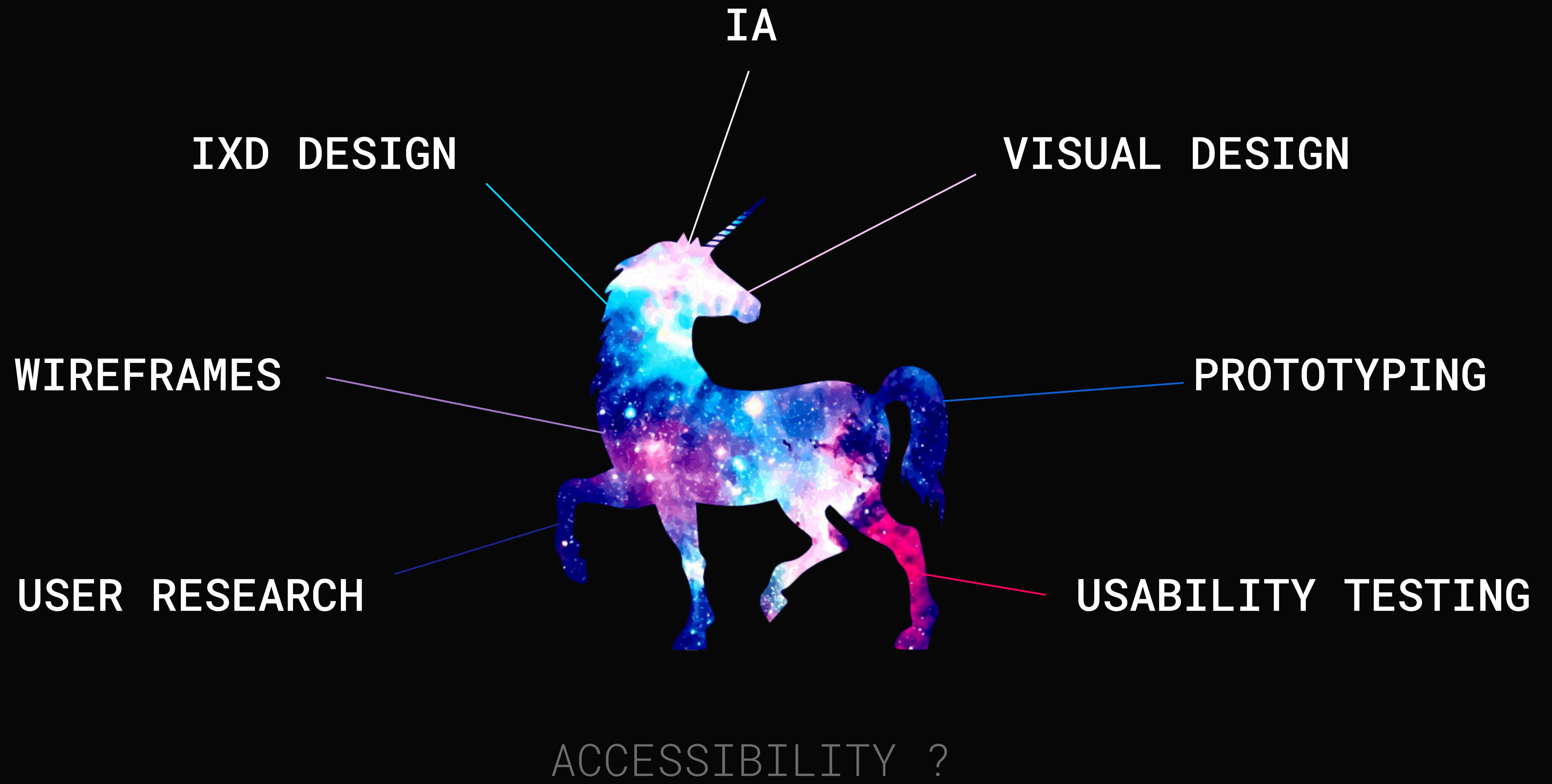
Designing for Accessibility



Núria Peña

Interaction Designer at Holidu

 @nuriapenya



Myth #1

"Accessibility is time-consuming
and hard to implement"



= Usability for all




Myth #2

“Accessible sites are ugly”

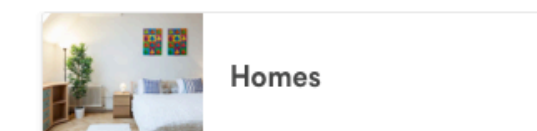
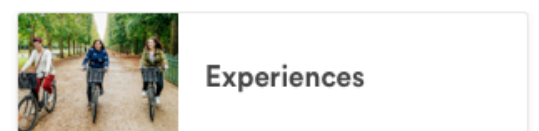
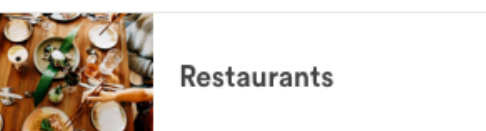


Why you should make useless things
Simone Giertz / Inventor, robotics enthusiast

NEWEST TALKS

-  Why you should make useless things 11:57
-  A playful solution to the housing crisis 10:41
-  How Baltimore calls ceasefire

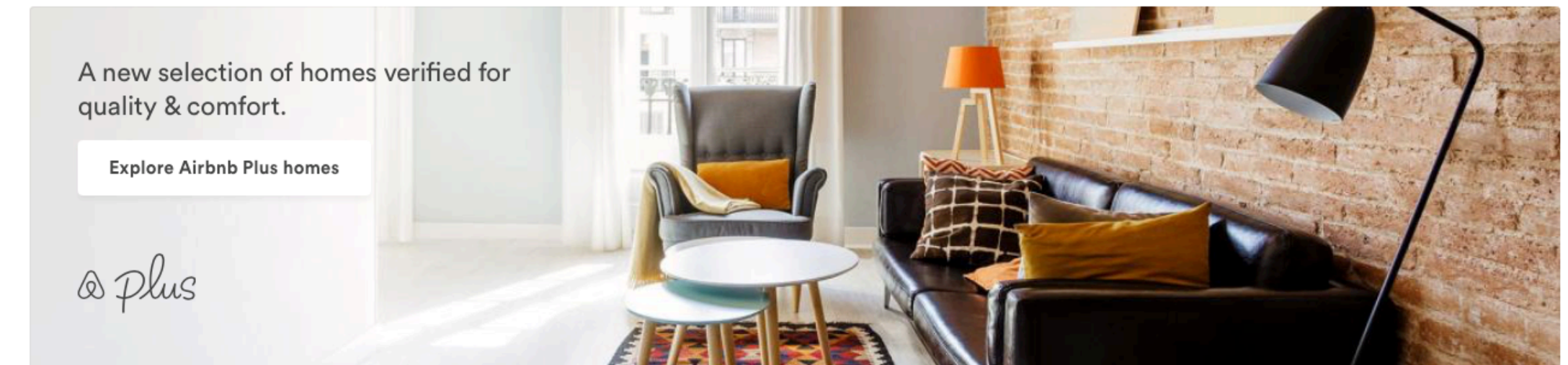
Explore Airbnb

-  Homes
-  Experiences
-  Restaurants

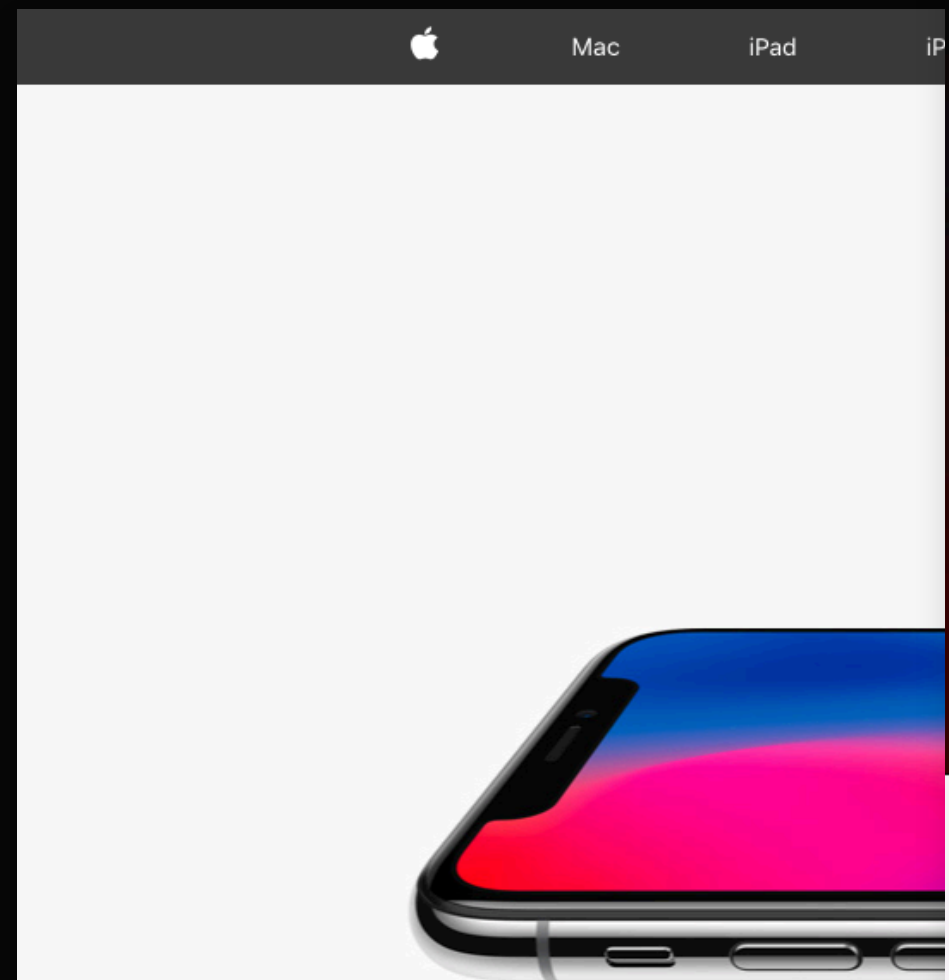
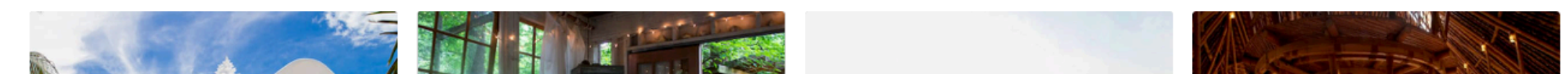
Introducing Airbnb Plus

A new selection of homes verified for quality & comfort.

Explore Airbnb Plus homes



Homes around the world



Myth #3

“Accessibility is for edge cases”

1,000,000,000+



**Accessibility is about designing for
everybody, not the few.**

Anyone, Anywhere, Anytime.

A11y Pro

- Developing Personas
- Test with people with impairments
- Accessibility as part of the process

A11y Newbie

- Look around you
- Experiment yourself
- Free online resources: Videos, tutorials, guides, testimonials...

**What
can I do?**



Empathy

Empathy enables us to
design more kindly



Simeon.__proto__ @DotProto · 4 Jun 2017

Replying to @captainsafia

ADHD here. Lots of text can be difficult to get through; Text-to-Speech is invaluable. I made a bookmarklet to help gist.github.com/svincent/feb5...



Jinny Lo, née Wong @shujinh · 23 Jun 2017

Replying to @captainsafia

Low contrast and small font sizes



Justin Golownia @JGolownia · 8 Jun 2017

Replying to @captainsafia

Having a visual impairment, using sites/apps w/low-contrast visuals, thin font weights and small font stacks is annoying and creates fatigue



Mustafa Kurtuldu @Mustafa_x · 3 Jun 2017

Replying to @captainsafia

Dyslexic - not really seen as a disability, but large walls of text is painful. Also never ending sentences and over complicated language.



Jack @JackAWatt · 19 Jun 2017

Replying to @captainsafia

Using the mouse. I have dysgraphia and a bit of nerve damage. Any website that scrolls horizontal is difficult to navigate(1/n)



sansa snark @cillyn · 4 Jun 2017

Replying to @captainsafia

visual impairment; looking at white screens (esp. w/ lines of text) all day working causes is v headache inducing/eye straining



Taylor Hunt @tigt_ · 3 Jun 2017

ADHD: If there's a "subtle" animation always running, I can't focus. Offender: blog.intercom.com's header gradient



Safia Abdalla

@captainsafia

i'm curious to know: if you have a disability, what's the hardest thing about browsing the web?



Robin @tohereknowswhe · 3 Jun 2017

Replying to @captainsafia @SaraSoueidan

HoH / deaf no subtitles on videos



Carol Carpenter @carolmcarpenter · 3 Jun 2017

Replying to @captainsafia @ithayla

I'm hard of hearing so big pain for me is video with no captions. tweet or article just says "can u believe he said this?" & no summary



amy @EhlersDanlost · 4 Jun 2017

Replying to @captainsafia @ai_valentin

Hand tremor. Anything I can accidentally click/tap (especially the "only click 1x" buttons for buying stuff) or can't purposefully click/tap



liminal nest : queer and fabulous @UntoNuggan · 3 Jun 2017

Replying to @captainsafia

I'd also just like to point out that captions are AMAZING and great for more than the d/Deaf and HoH community. More videos need captions.



Steffen Frosch @KodierKroete · 3 Jun 2017

Replying to @captainsafia @philwinkle

I don't have one but my mother has Parkinson disease and mouse interactions are really hard for her

@Rejistania · 3 Jun 2017

it remove minimal font size settings as a result! Hello, @Apple, option to Safari again!

@RobBluedreamer · 15 Jun 2017

to @captainsafia

ns that use similar colours for inline links and text (and don't underline nightmare if you're colour blind #colourblind

Design Principles

Text Clarity

People with visual impairments, might find **small fonts with low contrast** very difficult to read and can **create fatigue**

- + Ensure **big font**
- + Use **colour and weight to create hierarchy** instead of size
- + Make sure **contrast** radio passes min. standards

✘ DON'T

The Woodman set to work at once

The Woodman set to work at once

The Woodman set to work at once

The Woodman set to work at once

✔ DO

The Woodman set to work at once

The Woodman set to work at once

The Woodman set to work at once

The Woodman set to work at once

Colour Cues

Not everyone perceives colours in the same way.

- + Never rely on **colour only**
- + **Support system feedback** with icons or, preferable, text.

✗ DON'T

First Name

Last Name

Email

Password

NORMAL

First Name

Last Name

Email

Password

COLOR BLIND (DEUTERANOPIA)

✓ DO

First Name ✓

Last Name ✓

Email ✗

Password ✓

NORMAL

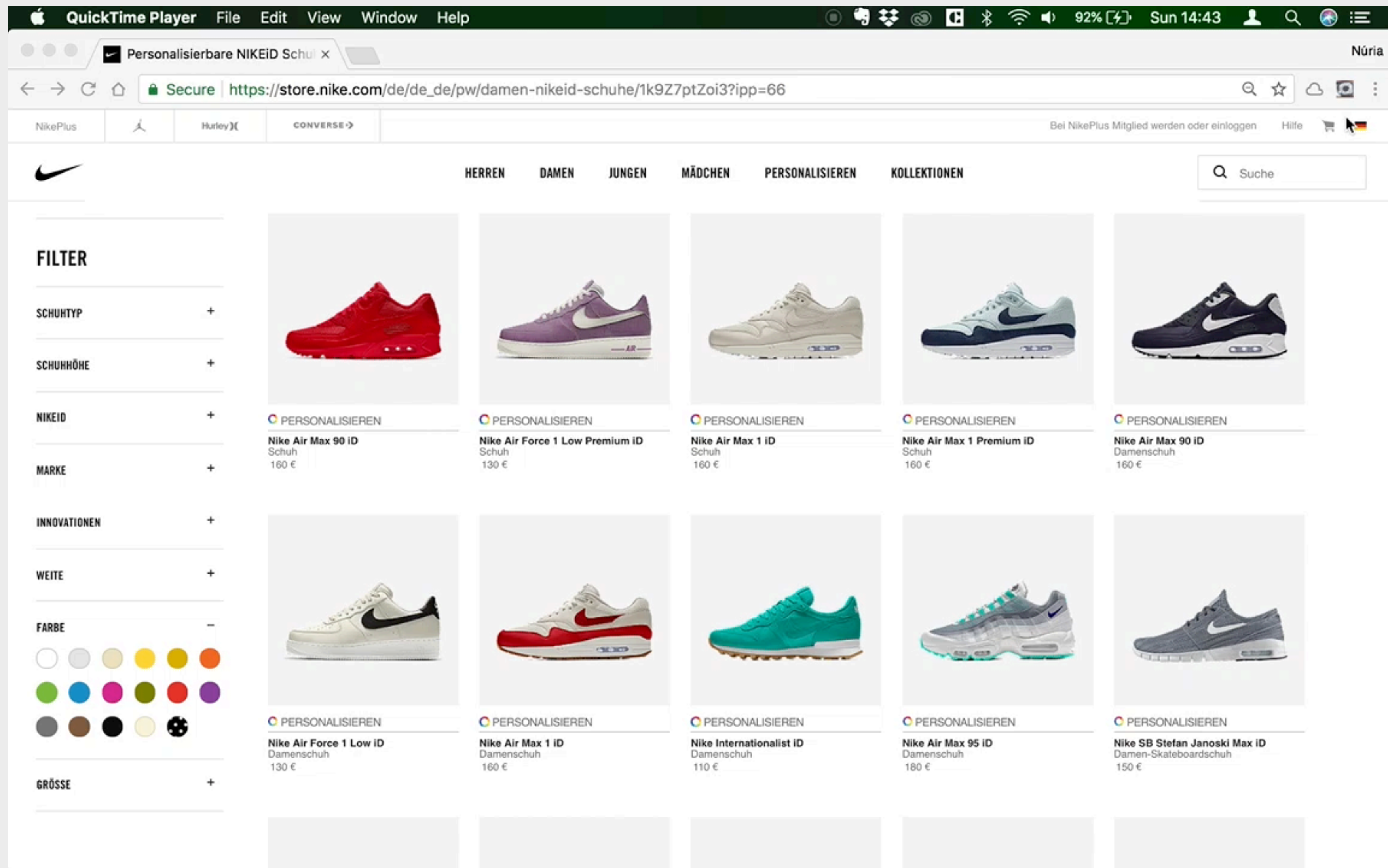
First Name ✓

Last Name ✓

Email ✗
enter vaild email address

Password ✓

COLOR BLIND (DEUTERANOPIA)

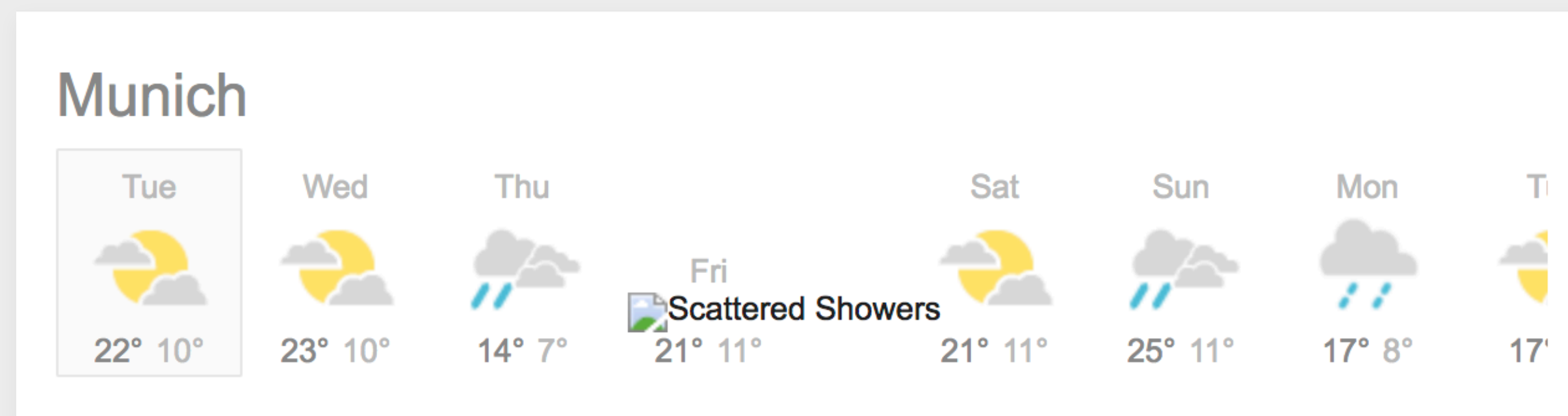
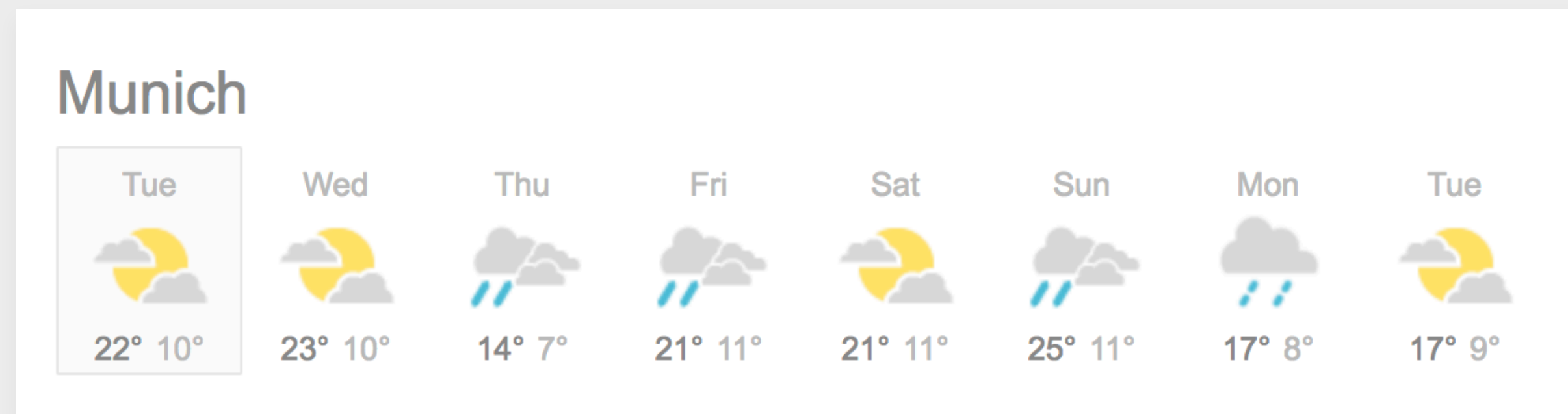


Colour blindness is one of the most common vision deficiencies.
It affects about **4.5% of the world's entire population**

Images & Descriptions

Screen reader users should have the **same amount of information** as someone viewing the image.

- + Provide **meaningful** alternative text for images



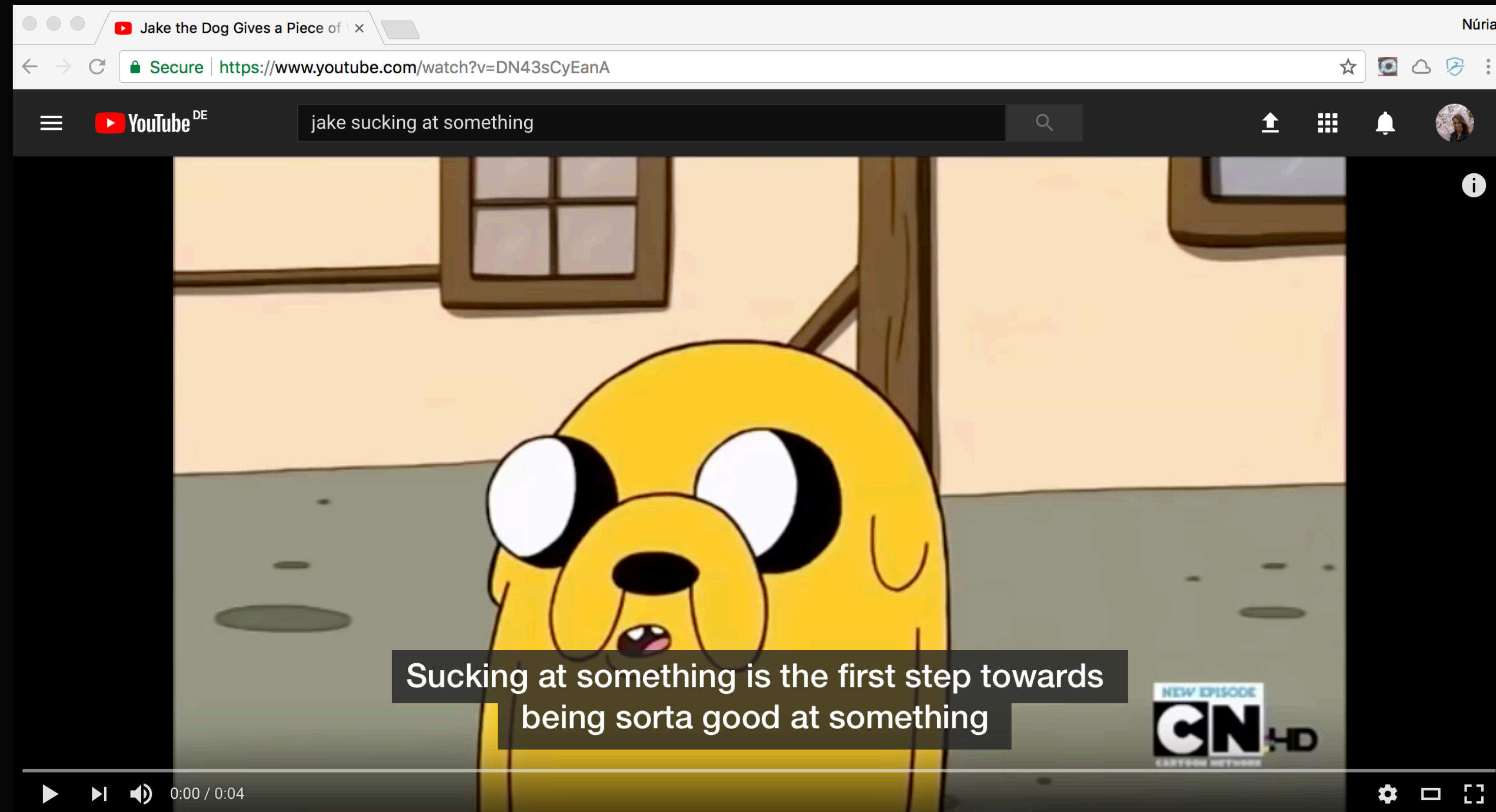
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Lack of Captions

Non-existing captions can completely exclude users who are deaf or hard of hearing. But it affects **many others as well.**

- + Cognitive impairments
- + Someone who forgot the headphones
- + Quiet place



Motion & Animation

Motion and animation can be annoying to anyone, but is **extra frustrating** for people with **vestibular disorders**:

- + **Heavy motion** can cause dizziness, vertigo or nausea
- + Carousels and ads might **distract users** from completing a task.
- + Avoid videos or motion to **start automatically**

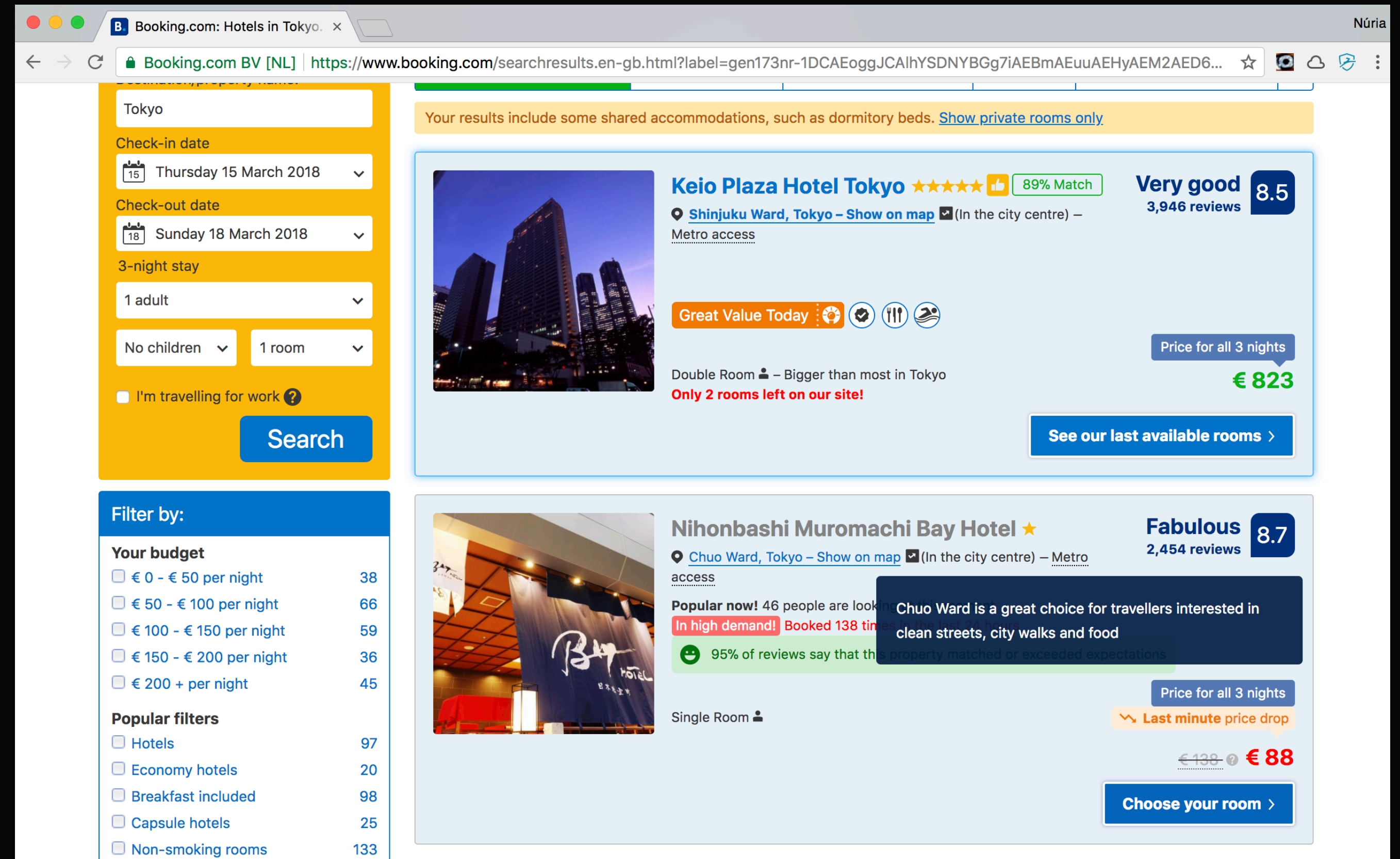


Cognitive Overload

Cluttered and distracting interfaces can derail users from accomplishing their tasks.

+ Clear path to achieve a goal without obstacles

+ Less options, faster decision-making



Wall of text

Large blocks of text with long sentences can cause **pain and fatigue**, especially for people with cognitive impairments.

- + **Break up big chunks of text** into multiple paragraphs or bulleted lists
- + **Left-aligned text** rather than centered or justified.
- + Short paragraphs, adequate use of headings and subheadings, and ample **empty space**.

Writing HTML with accessibility in mind

An introduction to web accessibility. Tips on how to improve your markup and provide users with more and better ways to navigate and interact with your site.

If you don't want to read the preface, [jump right to the tips](#).

This article is also available in [Russian](#), thanks to [Workafrolic](#), and [Portuguese](#), thanks to [EmanuelG](#).

Personal development and change in perspective

When I made my first website my highest priority was to get content online. I didn't care much about usability, accessibility, performance, UX or browser compatibility. Why would I? I made a robust table based layout and I offered a 800×600 and a 1024×768 version of my site. On top of that, I informed users that the website was optimized for Internet Explorer 5.

992



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Where a community about your favorite things is waiting for you.
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this post was submitted on 26 Apr 2018
48 points (96% upvoted)
shortlink: <https://redd.it/8f367j>

username password
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[Submit a new link](#)
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redesign
[subscribe](#) 7,970 readers
299 users here now
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- [u/creesch's recommendations for r/redesign](#)
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 a community for 9 years
 MODERATORS [message the moderators](#)
 Amg137 **Product :thumbsup:**
 anand-m **Eng**
 hueylewisandthesnoos **:illuminati: Dezi**
 scruggsnotdrugz **Product :only:**
 emoney04 **Product**
 nr4madas **Eng**

An accessibility review of the top bar. (self.redesign)
submitted 17 days ago * by k4rp_nl

There have been quite some posts about accessibility so far. I thought I'd add my drop to the bucket by reviewing the top bar of the redesign. So that would be the first 69 pixels, just to give an impression on what we're dealing with. It's a bit of a casual review. Reviews are usually part of a larger structured approach. Not as ad hoc as I'm doing it. Also, formatting on Reddit might not be ideal for presenting the results...

What is accessibility, and why is it important?

Accessibility is about making products or services that are usable by everyone, including people with disabilities. You might have also heard the related terms inclusive design or universal design. About 15-20% of the world population has a disability. So that's about 1.2 to 1.5 billion people. These people experience barriers in their everyday lives that should not be there. These barriers create a divide.

I see Reddit (and the internet in general) as a place where everybody should be equal. There is no reason for persons with disabilities (PWD) to feel like they're left behind here. We have the technology to create a website that is equally accessible for everyone. There's no reason to discriminate.

And the great thing is, an accessible website improves the usability for everyone.

Some terms and background

Assistive Technology (AT): A lot of people with disabilities use extra tools or software to support them. We call these AT. Stephen Hawking used AT. He would not have been able to use Reddit.

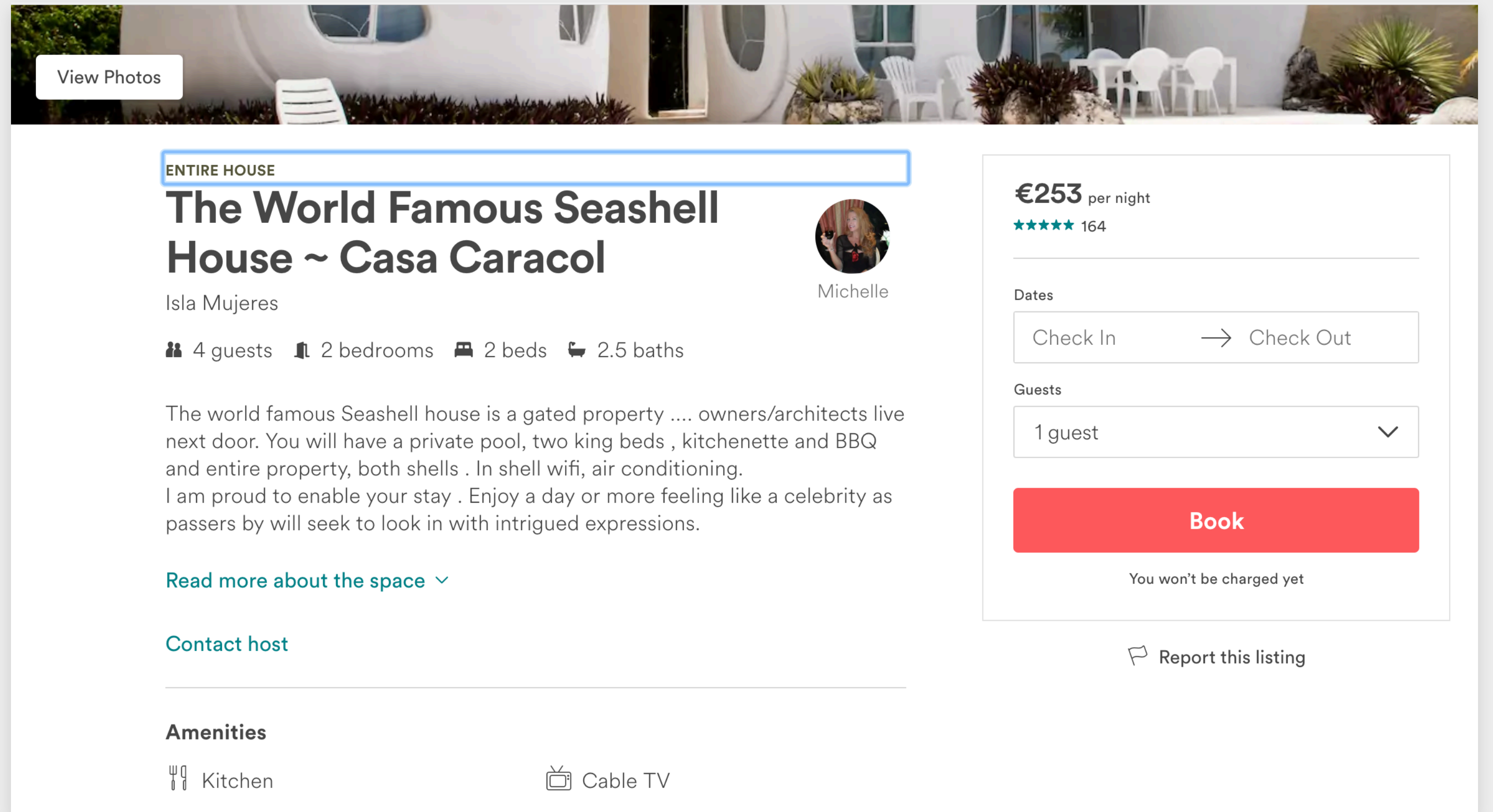
Screen Reader (SR): A screen reader is software that reads what is on a computer (or telephone) screen and helps navigate it. Important to know is that whatever is on the screen should adhere to standards and everything should

It is estimated that between **5-10%** of the population has dyslexia, but this number can also be as high as **17%**.

Keyboard-focused

Some users navigate the internet **using the keyboard** rather than the mouse.

- + **All functions** can be accessed with keyboard.
- + Use a clear **focus outline**
- + Place **key information** “above the fold”
- + Give users **enough time** to perform their tasks



The screenshot shows an Airbnb listing for 'The World Famous Seashell House ~ Casa Caracol' on Isla Mujeres. The listing is categorized as an 'ENTIRE HOUSE' and is hosted by Michelle. Key details include a price of €253 per night, a 5-star rating from 164 reviews, and availability for 4 guests, 2 bedrooms, 2 beds, and 2.5 baths. The description highlights features like a private pool, kitchenette, BBQ, and air conditioning. A 'Book' button is prominently displayed in red, with a note that the user won't be charged yet. The listing also includes a 'View Photos' button at the top left and a 'Report this listing' link at the bottom right. The 'Amenities' section lists 'Kitchen' and 'Cable TV'.

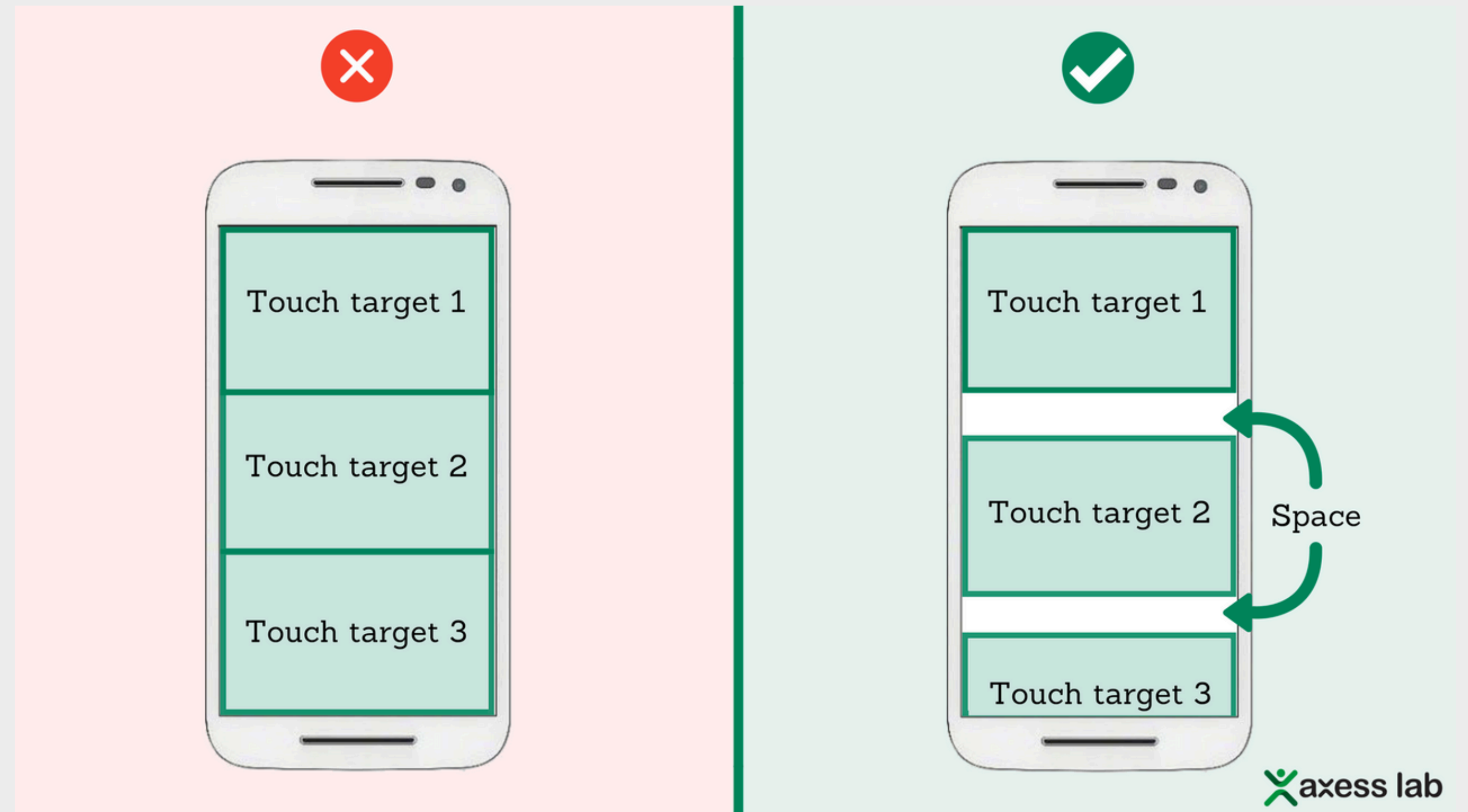
Target points



Target points

For people with **motor and dexterity** impairments, some buttons and links are too small to touch.

- + Add **enough space** between the different objects
- + **Simplify** common interactions



By applying those design **principles** we are not only **improving the experience** to people with impairments but to **everyone**.

Final thoughts

- Accessibility is just a **better design** for **everyone**.
- **Empathy** will enable us to design more kindly.
- Consider these **design principles** to improve accessibility in digital products.

**“The power of the web is in
its universality”**

– Tim Berners-Lee

Inventor of the World Wide Web.

Live. Learn. Access

Designing for Accessibility

Questions?



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 @nuriapenya