

The word "devfest" in a white, lowercase, sans-serif font. A yellow arrow points from the 'v' to the main title area below.

```
// You'll need  
// com.google.  
listRef.listAll  
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```

Designing for Neurodiversity, Empathy, Human Centric Design and Inclusion in Software Applications

The Google Developer Groups logo, featuring the multi-colored Google 'G' icon followed by the text "Google Developer Groups" in a grey sans-serif font, and "Vancouver" in a green sans-serif font below it.

Google Developer Groups
Vancouver



Glossophobia



```
Text(  
  'Section Title',  
  style: TextStyle(  
    color: Colors.green[200],  
  ),  
)  
  
s.star,  
r: Colors.green[500],  
Text('23'),
```

devfest



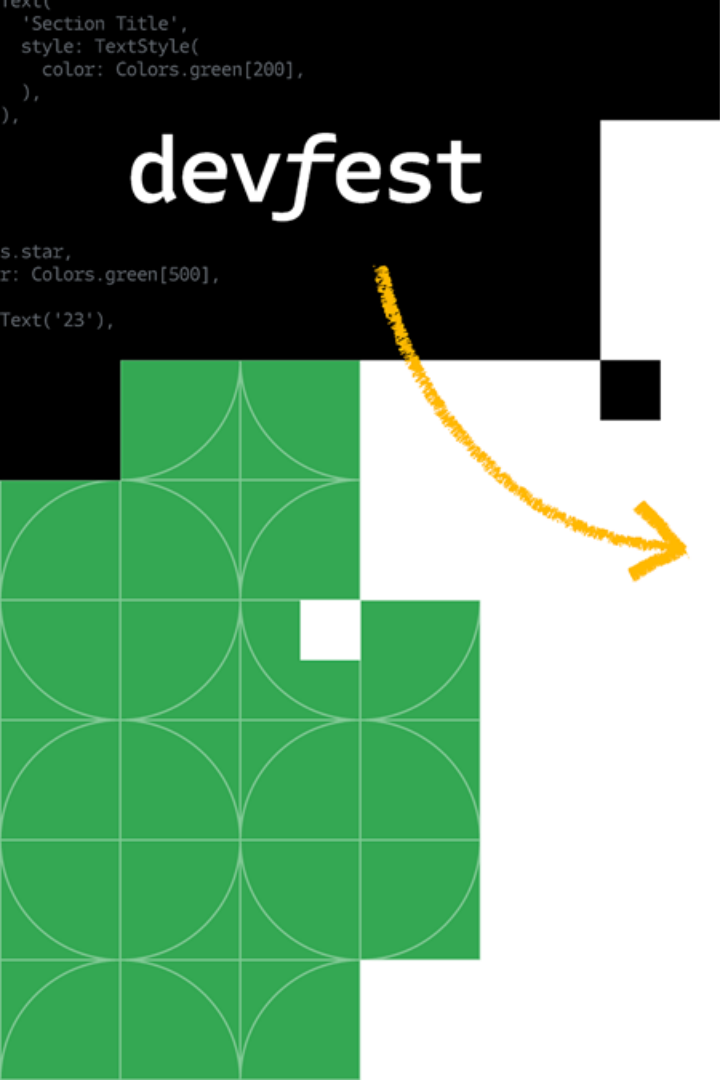
Agenda

What is Neurodiversity?

Accessibility vs ND

Guidelines for Design

Concluding Remarks



SOME DISABILITIES LOOK LIKE THIS



OTHERS LOOK LIKE THIS



NOT ALL DISABILITIES ARE VISIBLE

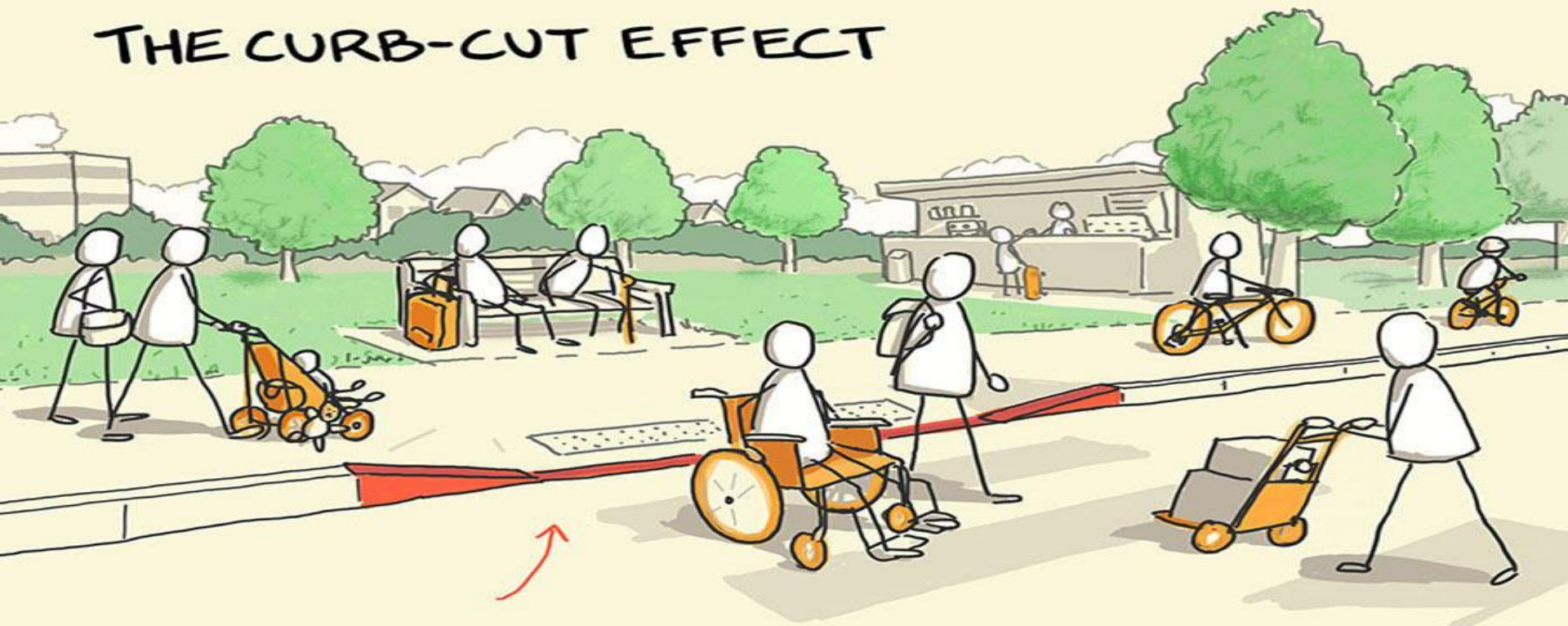
```
Text(  
    'Simple Statement or URL',  
    style: TextStyle(  
        color: Colors.green[200],  
    ),  
),  
),  
s.star,  
r: Colors.green[500],  
Text('23'),
```

devfest

**Neurodivergent brains are
biologically different.**

**One cannot be "trained out
of" the way their brain works**

THE CURB-CUT EFFECT



WHEN WE DESIGN
FOR DISABILITIES

... WE MAKE THINGS
BETTER FOR EVERYONE

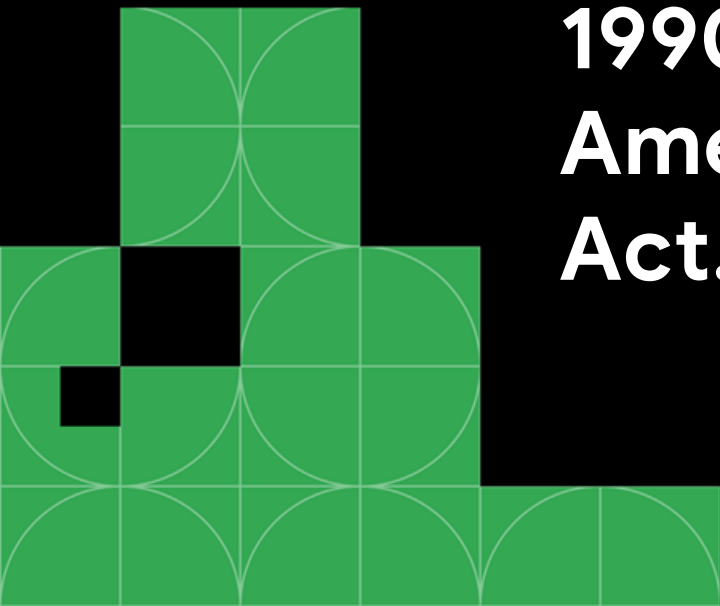
sketchplanations

```
Text(  
  'Simple Statement or URL',  
  style: TextStyle(  
    color: Colors.green[200],  
  ),  
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s.star,  
r: Colors.green[500],  
Text('23'),
```

devfest



**Not legally required until
1990 with the signing of
Americans with Disabilities
Act.**

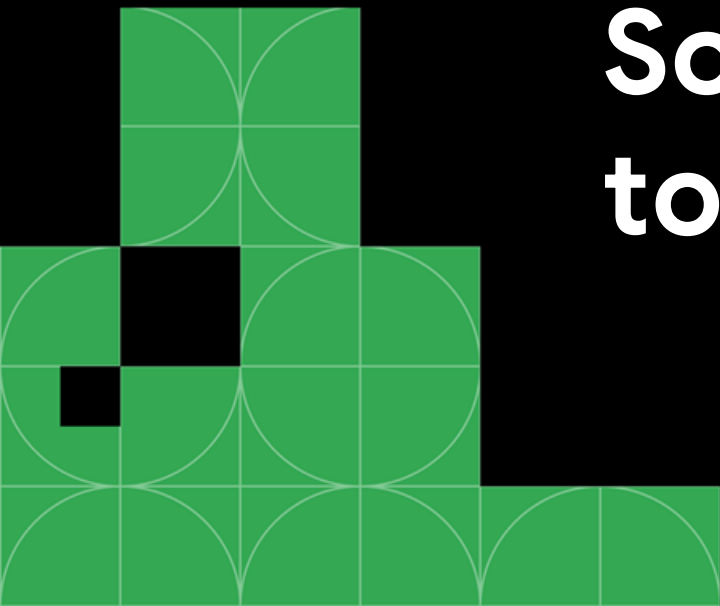



```
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style: TextStyle(  
  color: Colors.green[200],  
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s.star,  
r: Colors.green[500],  
Text('23'),
```

devfest



Solve for one, extend to many



“NOTHING ABOUT US WITHOUT US”



IDA
International
Disability Alliance

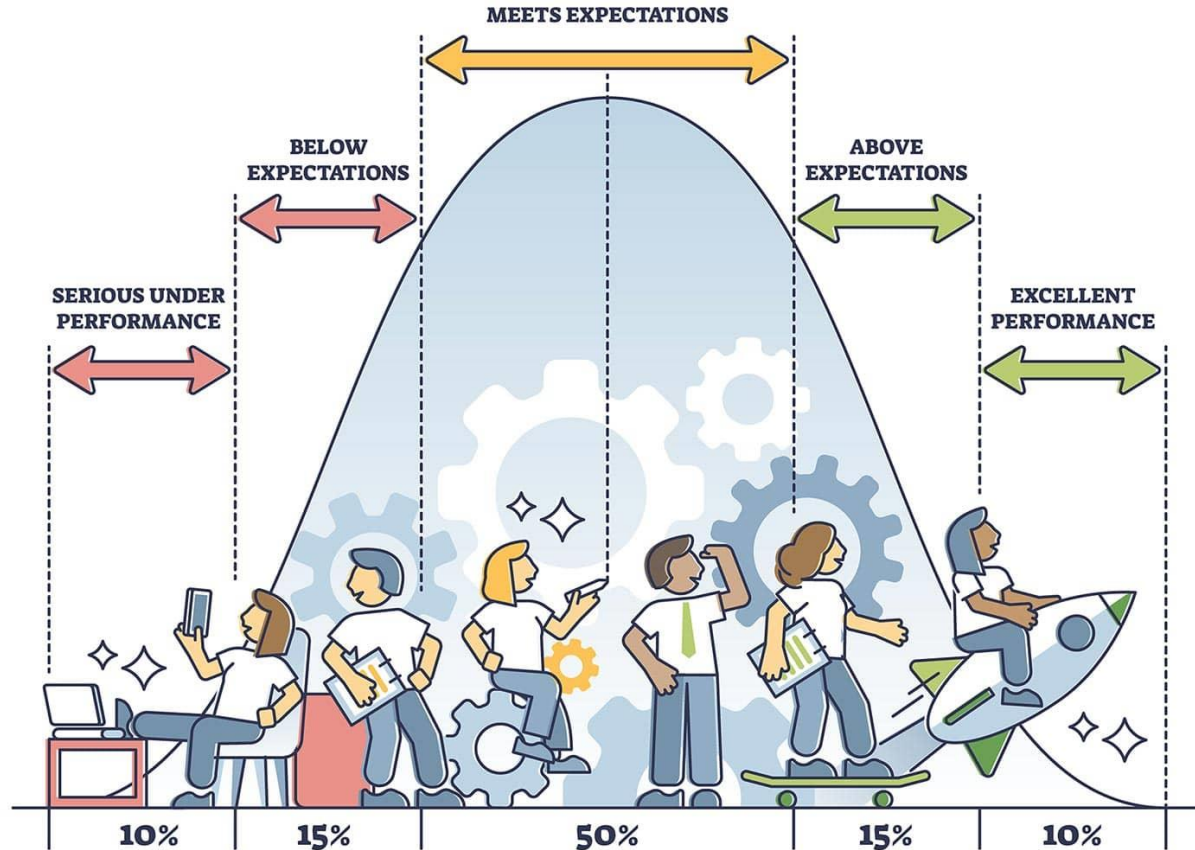
#IDPD21

```
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s.star,  
r: Colors.green[500],  
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```

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**Risk marginalization
and only cater to the
central, normal values
as peak users in the
Gaussian(bell) curve.**

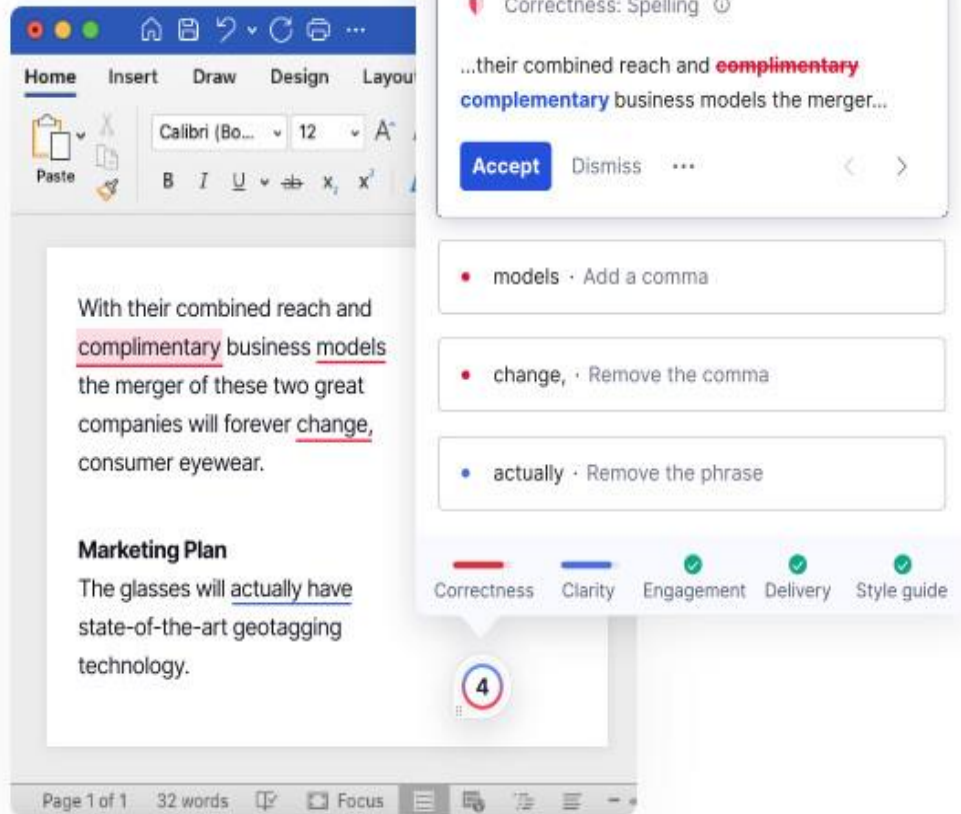
BELL CURVE



Source : <https://www.simplypsychology.org/normal-distribution.html>

Be Kind and Forgiving

Grammarly - Disneyland of Spelling





Implement a Forgiving Format to Accommodate Users' Mistakes

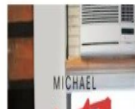
“We don’t make mistakes, just happy little accidents.”
—Bob Ross, American painter, painting instructor, and TV show host

Where to? Start your next adventure on Airbnb.

Where Destination, city, address	When Anytime	Guests 1 guest ▾	Search
-------------------------------------	-----------------	---------------------	------------------------

[FOR YOU](#) [HOMES](#) [EXPERIENCES](#) [PLACES](#)

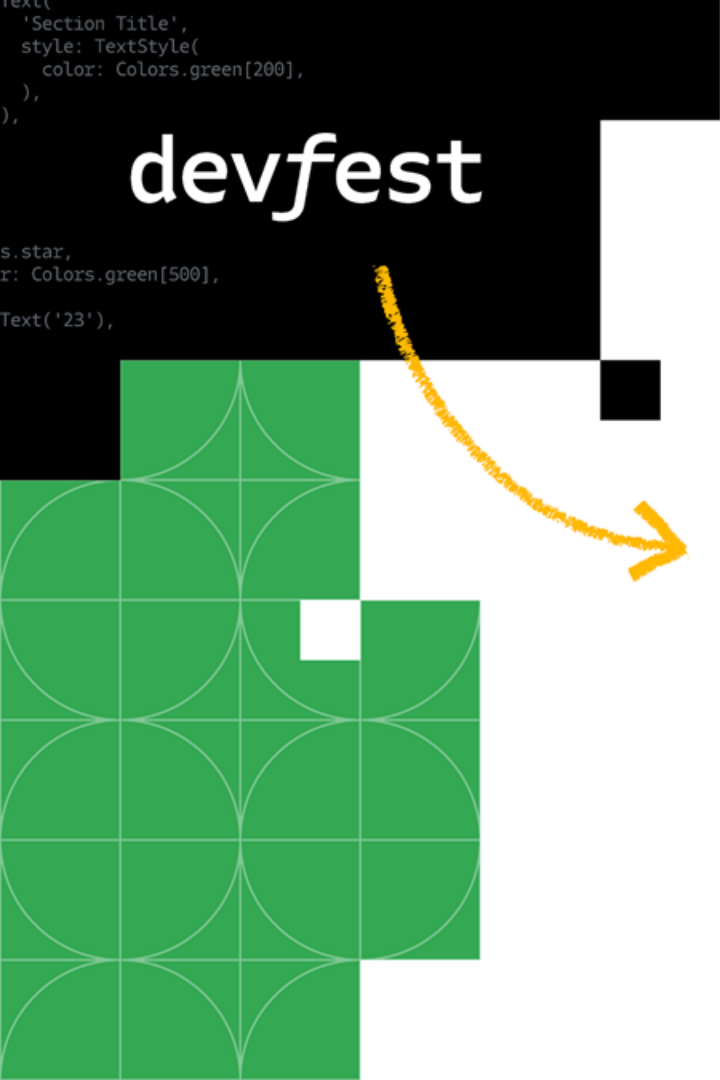
New in Harlem



Forgot attachment?

Attachments first, message second, subject third, and recipients last. This is my way.





Abundance and not redundancy



Home



My Tasks



Inbox



Portfolios



Goals

Show less

Favorites



Recruiting weekly mee...



Website Launch



Rebranding video



Marketing



Editorial Calendar



Customer Stories - Q4



Website Design Reque...

Show more

Reports

Teams



Marketing



Customer Stories - Q4



On Track



Share



Search



Last task completed on 12 Oct

Incomplete tasks

Filter

Sort

Rules

Apps

Fields

...

Recurrent pieces



New formats



Content



Design



Edit customer testimonial



19 Nov

1



Customer Stories - Q4 submission



18 Nov



Content marketing campaign!



16 Dec



Editorial calendar



22 Dec



Create campaign



Work-life balance newsletter



24 Nov



Apollo for nonprofits



14 Jan, 2021

2



Quarter in review



25 Nov

2



Press release on acquisition



23 Dec

1



Add testimonials



22 Dec



new



Monday



Changes



30 Dec



Rewrite blog post



19 Jan, 2021



Choose customer for February spotlight



20 Aug, 2021



Editorial calendar



29 Dec



Customer spotlight



Customer spotlight



18 Jan, 2021



Create new in



17 Dec

+

```
Text(  
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Text('23'),
```

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 Google Developer Groups

Canary in the coalmine



Often the first to sense danger akin to canaries in the coal mine

Preventing miscommunication and not overwhelming the users

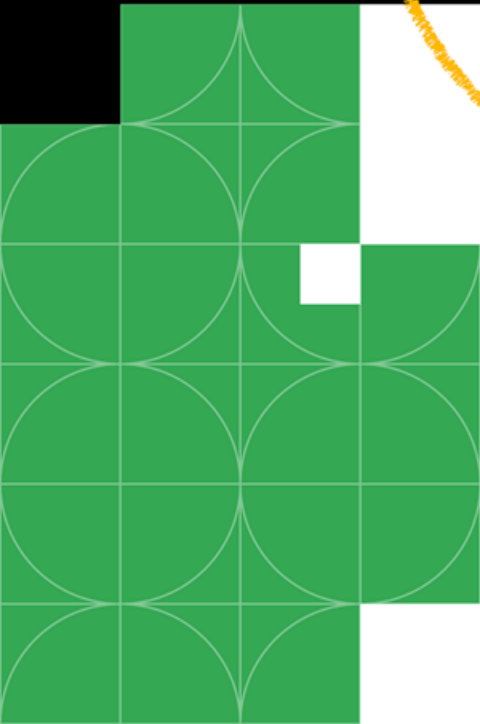


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Text(  
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```

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Guidelines



Guidelines

Interpretable messages

Avoid use of characters that look alike

E.g. 1ll, B8, QOOCd, and break up long strings in phone numbers e.g. (000) 000-0000

Stick to active voice : Passive voice sentences are longer and harder to comprehend. Users with ADHD will get bored, dyslexics will have even more trouble reading, and so will readers on the spectrum.

Avoid metaphors : Trouble understanding metaphors, such as idioms and other abstract figures of speech.

E.g. Instead of calling it a day, it's more inclusive to say that something is done.

Guidelines

Format your writing : Divide large chunks of text into smaller paragraphs.
It is challenging for people struggling with limited attention spans.

Use descriptive buttons : No vague microcopy, such as *Click here*.

Describe the purpose of the button.

Example: *Upload images, Register, Download the e-book*.

This simple change makes navigation smoother and reduces anxiety.

Be careful with animations : Too much stimulation can induce anxiety in people on the autism spectrum, which may even lead to physical pain, withdrawal, or meltdown.

Use of animated elements : should be limited to instances when it serves a purpose.
Also remember not to make them too invasive.

Avoid autoplay

Unexpected movement is surprising and scary, not to mention the sound!

Add subtitles and captions

Bring in the perspective of ND users

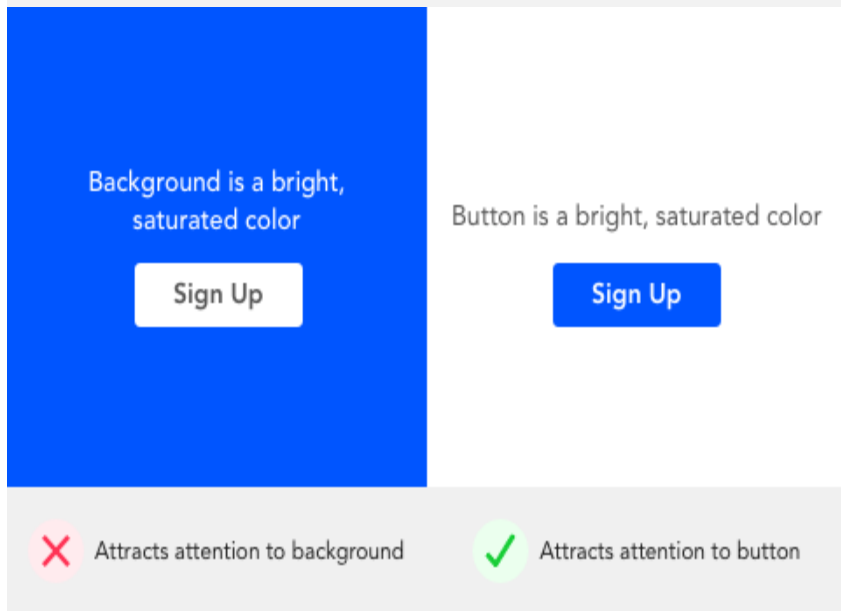
Perform user testing and focus groups with them.



Aim to visually please, rather than disturb.

Abstain from auto play in websites and music that suddenly appears out of nowhere.

Skip highly vibrant colors.



Designing for users on the autistic spectrum



Do...

use simple colours



write in plain English

Do this.

use simple sentences and bullets



make buttons descriptive

Attach files

build simple and consistent layouts



Don't...

use bright contrasting colours



use figures of speech and idioms



create a wall of text



make buttons vague and unpredictable

Click here!

build complex and cluttered layouts



Designing for users with dyslexia



Do...

use images and diagrams to support text



align text to the left and keep a consistent layout



consider producing materials in other formats (for example, audio or video)



keep content short, clear and simple



let users change the contrast between background and text



Don't...

use large blocks of heavy text



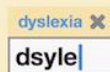
underline words, use italics or write in capitals

DON'T
DO THIS

force users to remember things from previous pages - give reminders and prompts



rely on accurate spelling - use autocorrect or provide suggestions



put too much information in one place



DIMINISHING VISUAL GLARE WHEN DESIGNING COURSE MATERIAL FOR

NEURO-DIVERGENT KIDS



Use a neutral colored background.



Employ lower intensity of black color.



Separate sections or bullets by colors.



Reduce the intensity of screen brightness.



Avoid neon or bright hues, use natural tones.



Use contrast to highlight call-to-action.

of **reusable** components,
ords,

Great Minds Think Unlike And Learn Differently

Representation Matters!



of **reusable** components,
rds,

**A design with
inclusivity and
neurodiversity in mind
is not just ‘nice to
have’ – it’s imperative**





**THANK YOU FOR WATCHING OUR
PRESENTATION**



makeameme.org