September 26, 2024

ACCESSIBILITY AND ENHANCING CUSTOMER EXPERIENCE - IAUG

What is Accessibility?

The goal of accessibility is to create inclusive experiences that empower individuals to engage fully, without barriers.


ALT TEXT
ARIA
EN-301-549
WCAG
TEXT-TO-SPEECH (TTS)
ACA
TTY
SECTION 508
SCREEN READERS
ASSISTIVE TECHNOLOGY (AT)

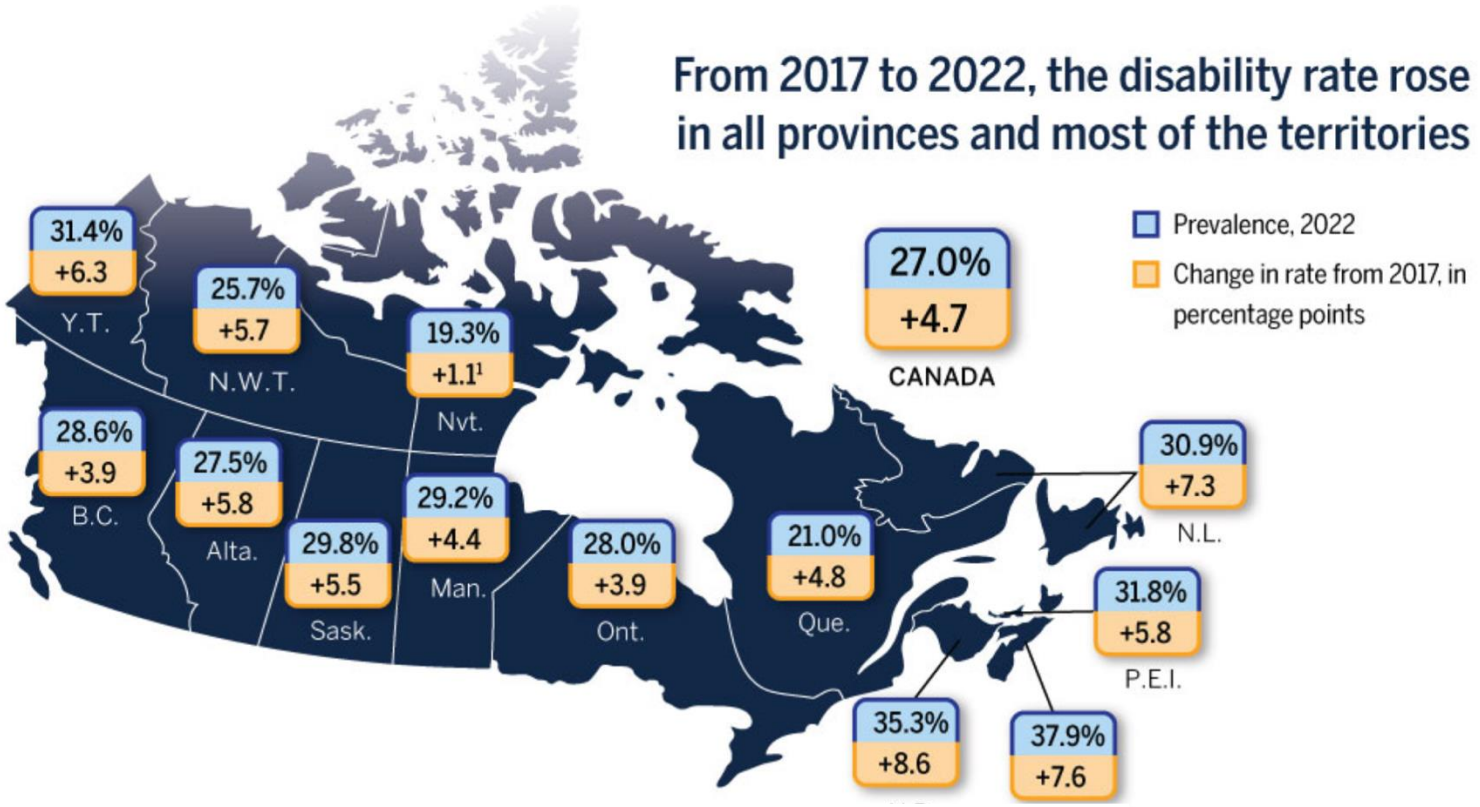
That is me over 25 years ago!
Won the Hammer Award

Why is this important?

1.3 billion people
globally, PWD (people with disabilities) represent nearly 16% of the global population – a market the size of China

– World Health Organization (WHO)

8 MILLION PEOPLE WITH DISABILITY IN THE CANADA



27.0%
of the population has at least one disability

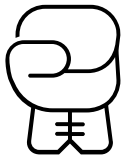
Increase of 4.7% since 2017

Statistics Canada

MYTH 1

Accessibility benefits only a small group

UNDERSTANDING DISABILITY

	Hear	Speak	Touch	See
Permanent	 Deaf	 Non-verbal	 One arm	 Blind
Temporary	 Ear infection	 Laryngitis	 Arm injury	 Cataracts
Situational	 Bartender	 Heavy accent	 Wearing Gloves	 Distracted driver

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Consider the following scenarios

MYTH 2

All users with disabilities have similar needs

Tailoring Solutions for Different Disabilities

Types of disabilities:

- Visual
- Auditory
- Deaf-blindness
- Mobility, Flexibility and Body Structure
- Seizure Disorder
- Cognitive
- Psychological and Psychiatric

Understanding and addressing these diverse needs is crucial for creating **inclusive** and **accessible** environments.

MYTH 3

Accessibility is just about compliance

LEVERAGING ACCESSIBILITY: ADVANTAGES FOR BUSINESSES

Reaching a wider audience

Improving usability for everyone

Driving innovation

Enhancing brand image and reputation

Reducing legal risks

LEGAL REQUIREMENTS FOR ACCESSIBILITY

4,000 +

Web accessibility lawsuits filed in 2023

Section 508

Americans with Disabilities Act (ADA)

EN-301-549

Communication and Video Accessibility Act (CVAA)

State and Local Laws and Policies

1.3 billion people =

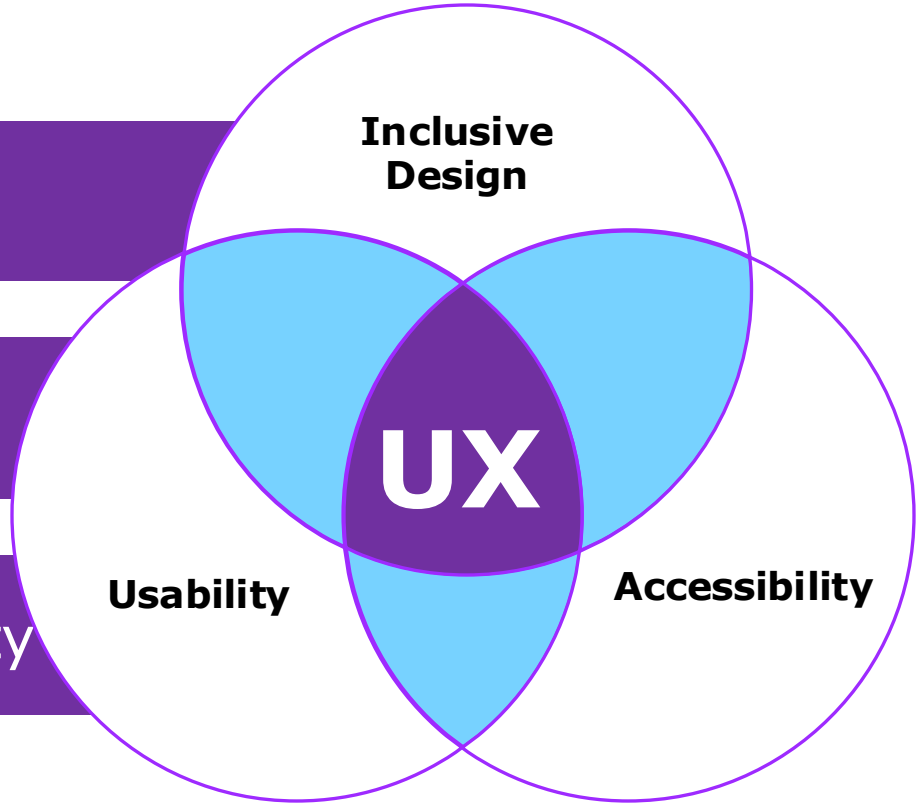
$13 Trillion in disposable income

MYTH 4:

Accessibility can be achieved quickly at the end of the design process

ACCESSIBILITY AND ITS IMPORTANCE IN UX DESIGN

- Reaching a larger audience
- Enhancing usability for all users
- Demonstrating social responsibility



THE UX TEAM'S VITAL ROLE IN ACCESSIBILITY: OUR APPROACH

UX design process

- User research
- Accessibility principles
- Navigating guidance
- Collaborate with developers
- Content design

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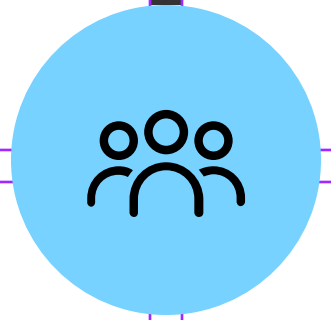
Neo design system

- Consistent patterns
- Accessible components
- Documentation & guidelines
- Compliance checks
- Training & education

THE CRITICAL ROLE OF OUR ACCESSIBILITY TEAM

Establishing processes and policies

Providing training to designers and developers



Conducting tests and generating GAP reports

Promoting a culture of accessibility

How can we achieve this?

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Understanding the 4 principles of Accessibility (P.O.U.R)

The four guiding principles of WCAG are summarized by the acronym POUR:

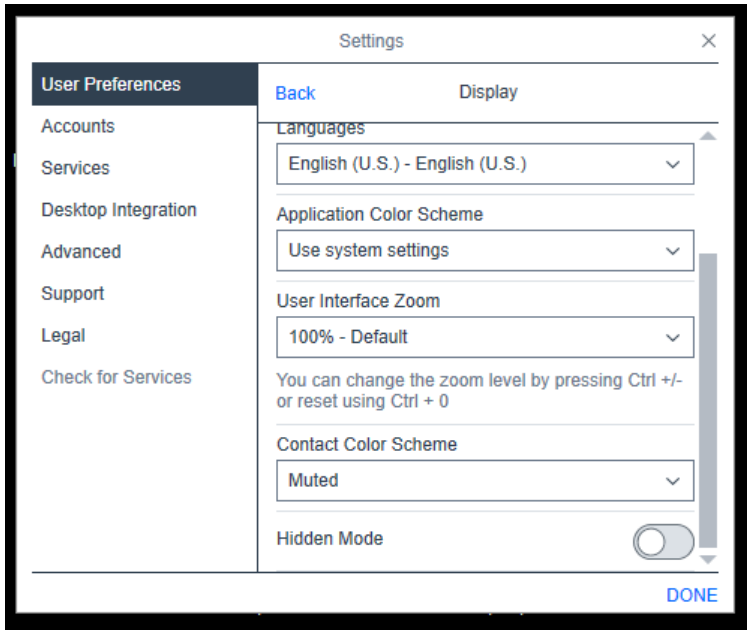
1. **Perceivable**: Information and user interface components must be presented in ways that users can perceive.
2. **Operable**: User interface components and navigation must be operable by all users.
3. **Understandable**: Information and interface operations must be understandable.
4. **Robust**: Content must be robust enough to be interpreted reliably by a wide variety of user agents, including assistive technologies.

What have we done?

Workplace “Hidden Mode”

For Users With Visual Impairments

- **No graphical interface**: In "Hidden Mode," Workplace operates entirely through voice, with all outputs – like Caller ID – spoken by Microsoft Narrator.
- **Keyboard-based input**: There’s no need for a mouse. All commands are executed using customizable keyboard shortcuts.
- **Seamless operation with GUI apps**: "Hidden Mode" allows users to run Workplace alongside graphical applications without interference.
- **Designed for users with visual impairments**:
  - Workplace and screen-reading software work independently, ensuring both can provide spoken output without confusion.
  - Users often assign different voices to Workplace and their screen reader, allowing them to easily distinguish which application is speaking.
  - Importantly, the screen-reading software continues to follow the GUI, even when "Hidden Mode" is active.

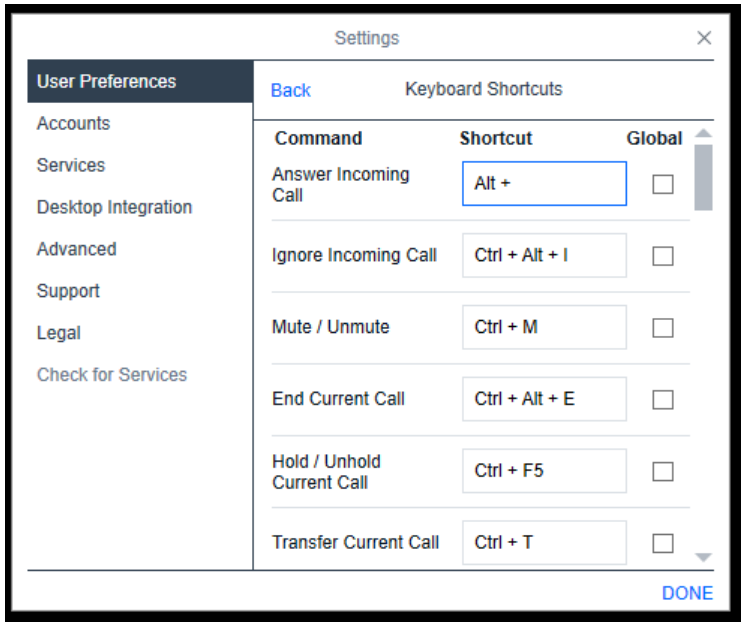


The Workplace GUI-less style of interaction is referred to as Hidden Mode. It can be enabled or disabled in the Settings / User Preferences / Display menu.

Keyboard Shortcuts

For Users With Visual Impairments

- Blind users often face challenges with traditional PC software, primarily because they cannot use a mouse. To address this, **Section 508** mandates that all software must be operable via the keyboard.
- **Avaya Workplace** goes beyond this requirement by offering enhanced accessibility features. Users can **customize keyboard shortcuts** and decide whether they should remain active at all times or only when the Workplace GUI is in focus. These preferences can easily be adjusted through the **Keyboard Shortcuts menu**, giving users full control over their experience.



These settings can be configured in the Keyboard Shortcuts menu.

Keyboard Navigation

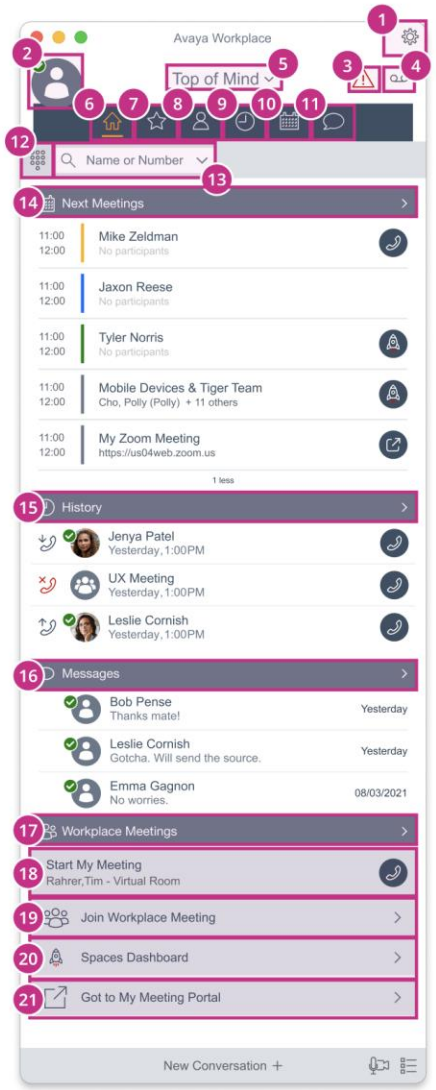
Tab Order

TAB

TAB Key:
puts focus on the next tab stop

SHIFT TAB

SHIFT + TAB Key:
puts focus on the previous tab stop

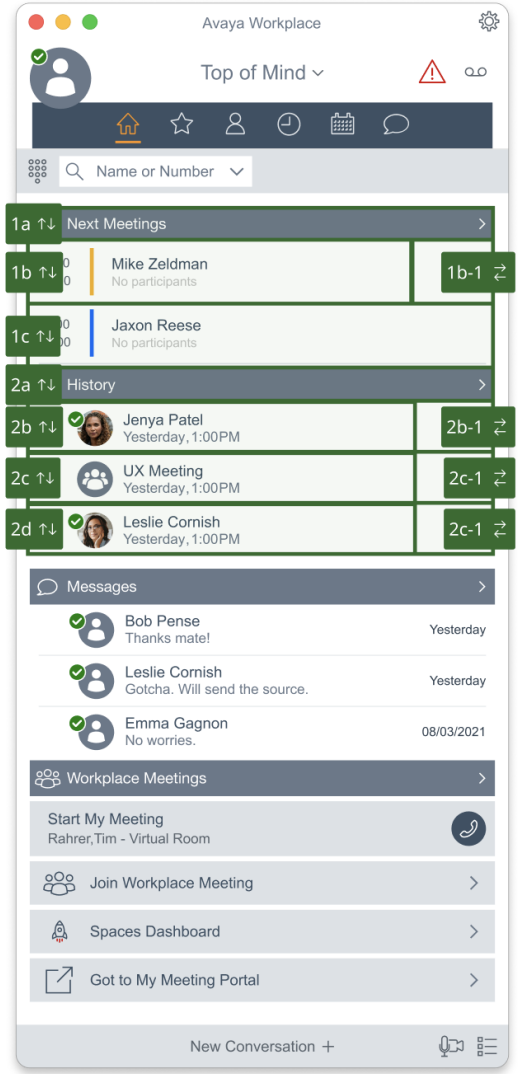


Arrow Order

Arrow up/down ↑↓

UP/DOWN arrow key only navigate through elements within the defined section
Ie: if i/m on (1c) and press DOWN the focus stays on (1c) because its the end of section (1).

- press TAB key to go to the next section ie: press TAB to go to the next section ie: press TAB to go to (2a); from here I can use UP/DOWN keys to go trhough (2a)-(2c)

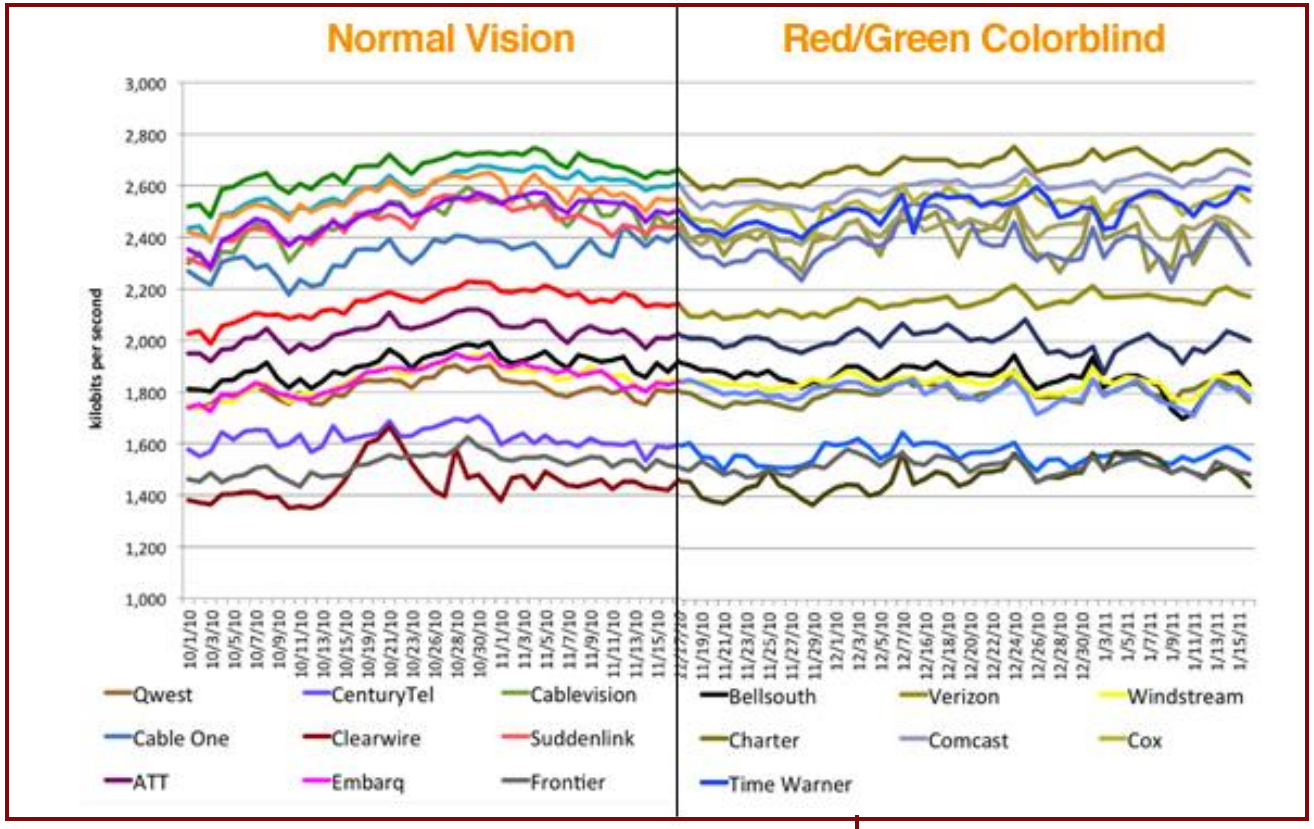


Arrow left/right ⇄

LEFT & RIGHT arrow keys only navigate through elements within the row/group

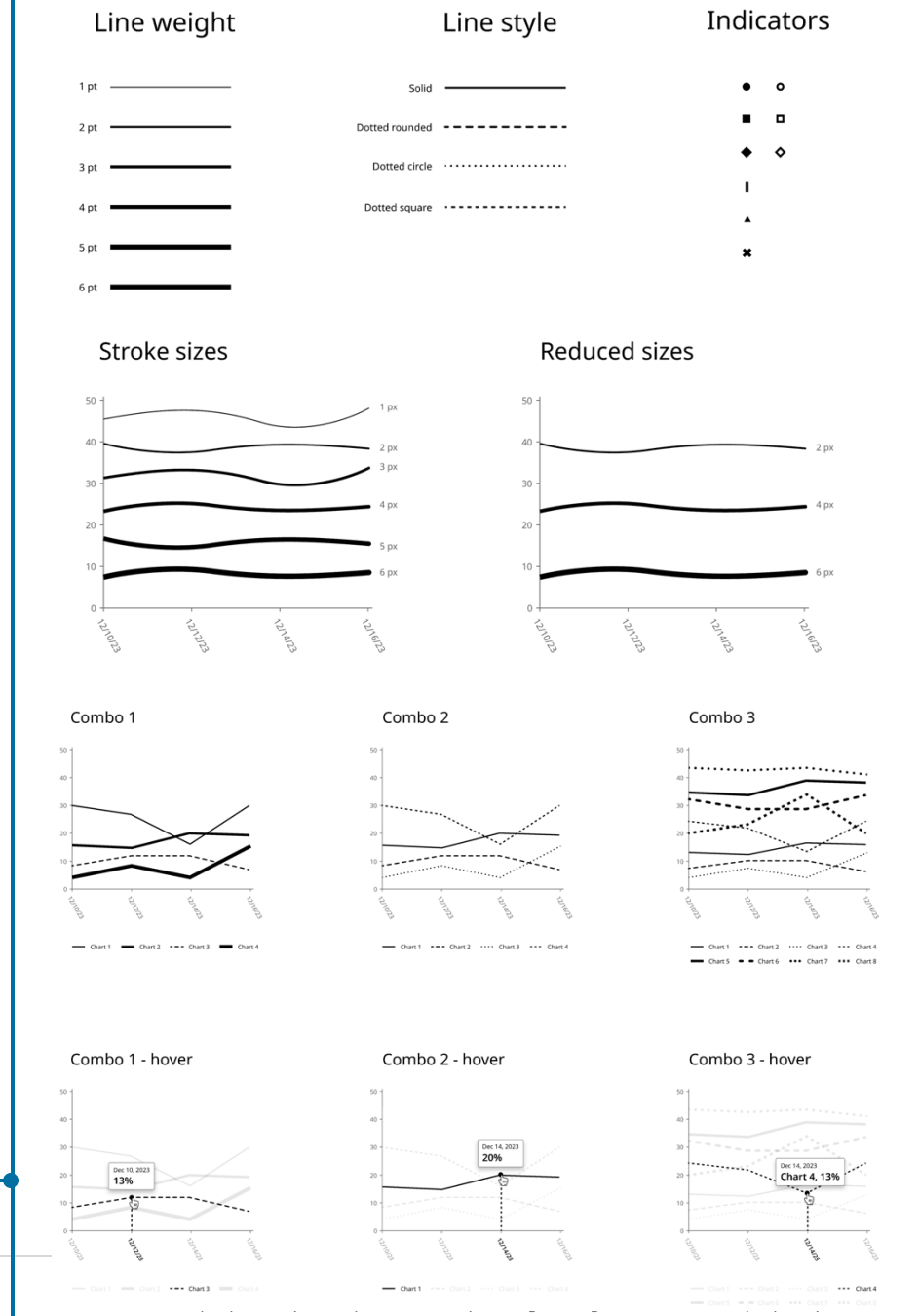
press UP or DOWN to go to another row/ group

Color blindness pain points



How people with color blindness see charts

Some of the exploration and learnings from Neo



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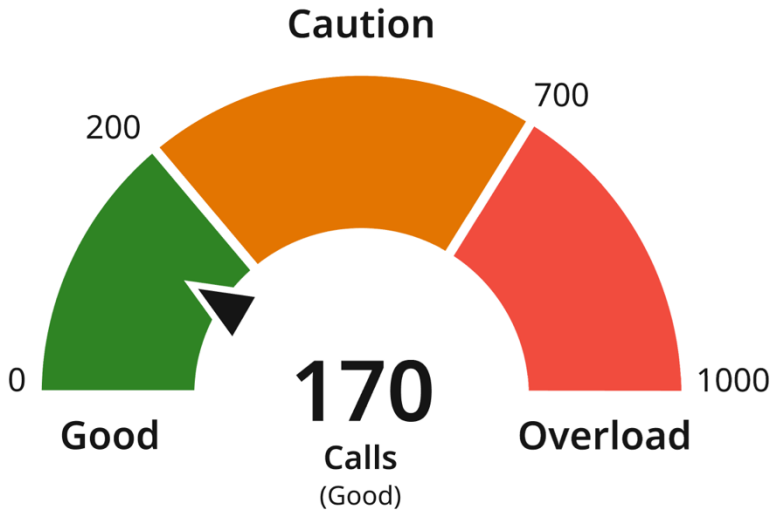
Color contrast

ORIGINAL



Example showing a chart using divergent colors to communicate intentional data.

Inconsistent Color Coding Issue: Colorblind users may struggle to differentiate between similar colors (e.g., red for urgency, orange for caution), potentially causing misinterpretation.

Text contrast in the chart doesn't meet the 4.5:1 ratio, making it hard for low-vision users to read, even with alternative text for non-sighted users.

Fix: A system was implemented for designers to choose contrast-compliant colors, with alternative cues like text labels and patterns added to assist colorblind users.

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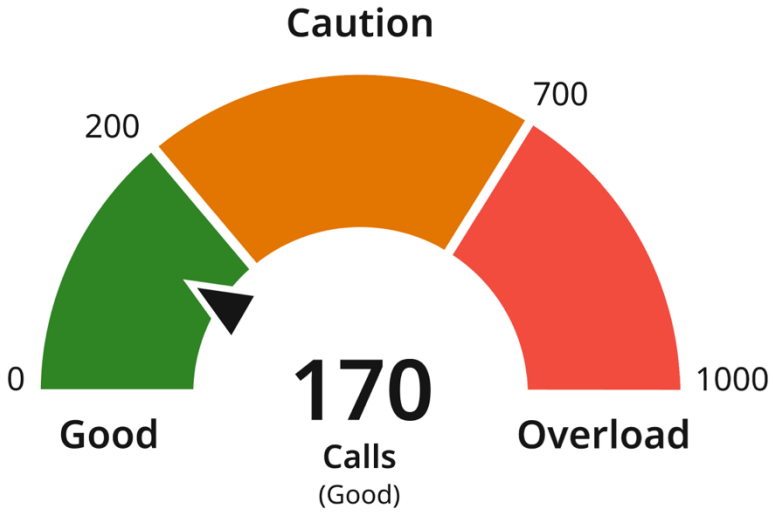
Color Coding Issues

ORIGINAL

RED-BLIND/PROTANOPIA

Divergent

green/500 #2E8523	orange/400 #E37501	red/400 #F14C3F
or-5 te-5 re-5 bl-5	gr-4	pi-4



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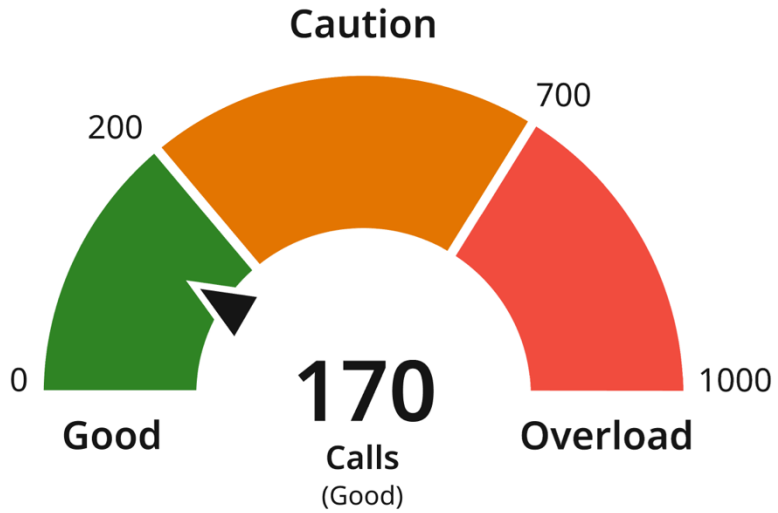
Issues with the Gauge Design

ORIGINAL



Example showing a chart using divergent colors to communicate intentional data.

Accessibility Impacts on Missing Call Data:

Missing Total Call Count:
Users with cognitive or visual disabilities may struggle to assess call volume without a clear total count.

Lack of Data Representation:
Without clearly defined x and y axes, users with visual or cognitive impairments may have trouble interpreting the data, causing confusion.

No Scale Indicators:
The absence of scale measurements can confuse users, especially those with cognitive or learning disabilities, making it difficult to assess performance accurately.

Absence of Total Count:
Without knowing the total number of calls, users with disabilities may struggle to prioritize responses, leading to delayed response times.

Disability is not something an individual overcomes. I'm still disabled. I'm still Deafblind. People with disabilities are successful when we develop alternative techniques and our communities choose inclusion.

— Haben Girma,
Haben: The Deafblind Woman Who Conquered Harvard Law

SET YOUR PACE TODAY

Jenn Becker, CPACC

AVAYA.COM

CHECK OUT WHAT'S HAPPENING AT AVAYA