Welcome
Before we get started

1. Today's webinar is scheduled to last 1 hour including Q&A

2. Click the CC button for Closed Captions

3. BSL interpretation is available

4. This webinar is being recorded and will be available on the website alongside additional resources within 7 days

5. Say hello in the chat (select "Everyone" from the dropdown) and ask questions using the Q+A button. You can also use the reaction buttons! 😲 🎉 😊

Get free one-to-one support from our Tech Champions

Dean
Digital Content Creation

Katherine
eCommerce and Merchandising

Adam
CRM and Box Office Ticketing

Ollie
Digital Marketing and Strategy

James
Data Analytics and Insights

Jack
Audience Data Collection

Nicola
Social Media

Roberta
Digital Accessibility

Monica
Search Engine Optimisation

Katy
Paid Social Media

Andy
Web Design

Momin
Search Engine Marketing

Jacqueline
Email Marketing

Different Breed ®

Enhancing user experience for hidden impairments.

Craig Pryde, 14th January 2025

Digital Culture Network

ARTS COUNCIL ENGLAND

Who am I?

- Founder of Different Breed ®, a disabled-led tech for good startup that advocates for inclusion through B2B software.

- Ex-software engineer at ATG, Viva Tickets & tech lead at various digital agencies across the UK.

- I'm autistic and I stammer (speech disability) and I couldn't talk fluently till I was in my 20's.

- I use a method of word swapping and humour to deal with my condition.

in craigpryde

@ craig@differentbreed.events

Living with a hidden impairments

Phone Calls - I find these incredibly stressful and filled with anxiety. I can't get the first word out and people can't see me.

Stranger Danger - Starting a discussion with a stranger is very tough and at times can leave the wrong impression.

Isolation - When speech is a struggle you spend a lot of time alone as the majority of the world operates in a spoken way.

Events & Music - These are my escape. The power of live events is that it brings people together regardless of race, ability or situation. It's the one place I can feel equal.

Have you thought about people like me when it comes to accessibility?

Most haven't… 70-80% of disabilities are not visible.

- **What is a hidden impairment?**

- **Common challenges for hidden impairments**

- **Live demo**

- **Charting your accessibility journey**

- **Q&A**

What is a hidden impairment?

An example of a hidden impairment is a visual impairment, this is a condition that affects an individual's ability to see, ranging from mild vision loss to complete blindness.

1 in 12	**1 in 200**
Men	Women

Are Colour Blind
(8% of men, ~0.5% of women).
Achromatopsia Effects 1 in 30'000 - 40'000

Over 2 Million People

Live With Sight Loss

1 in 5 People

Will Live With Sight Loss In Their Lifetime

Source RNIB

How do people with a hidden impairment navigate the web?

People with hidden impairments rely on assistive technologies to access and interact with digital content.
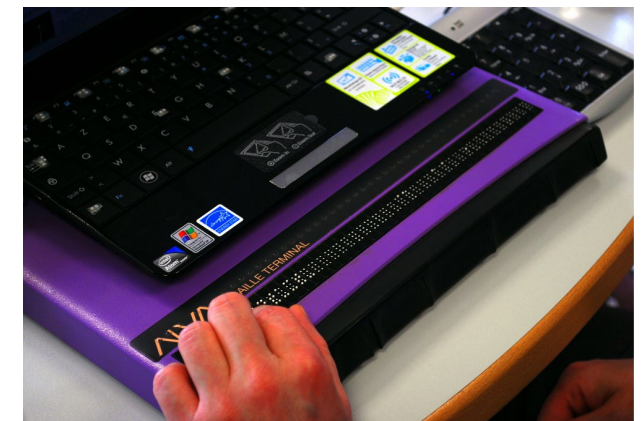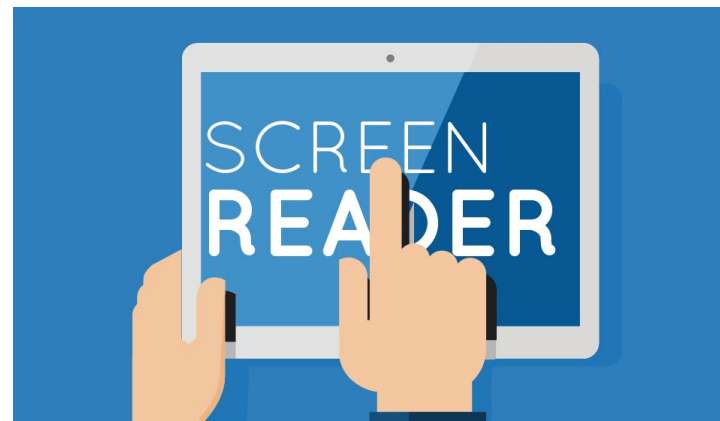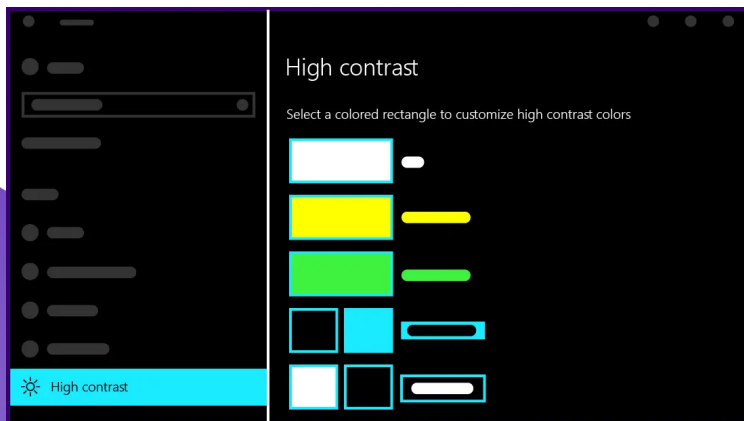
◎ **What is a hidden impairment?**

◉ **Common challenges for hidden impairments**

◎ **Live demo**

◎ **Charting your accessibility journey**

◎ **Q&A**

Common challenges for hidden impairments

Struggle to Navigate Experiences

Reliance on Visual Feedback
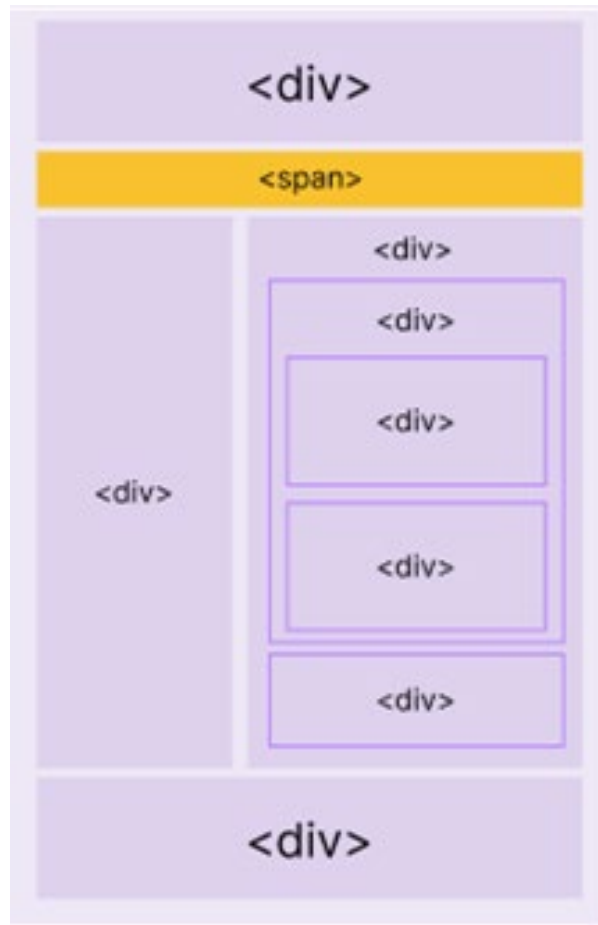
Dependence on Phone Lines

Increased Demand On Support

Lost Revenue

Missed Connections

Challenge: The way we structure pages

Non Semantic HTML

No Clear Structure
Non-semantic HTML uses <div> and <span> tags, providing no meaningful grouping or context.

Confuses Assistive Technology
Screen readers cannot identify page sections or navigate efficiently without landmarks.

Headings Misused
Headings are styled visually (e.g., for size or boldness) instead of reflecting the page's hierarchy.

Poor User Experience
Users with disabilities face increased frustration and abandonment due to unclear navigation and structure.

Solution: The way we structure pages

Semantic HTML
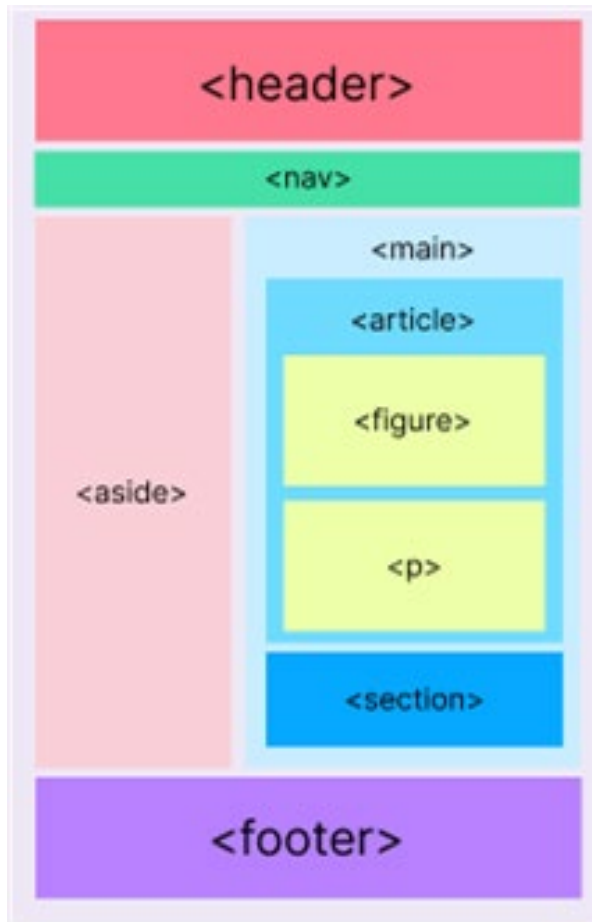
Clear Structure
Semantic HTML provides clear content grouping and meaningful context, making it easier to understand the page layout.

Easier for Assistive Technology
Landmarks and semantic tags allow screen readers to identify sections and navigate efficiently, improving accessibility.

Proper Use of Headings
Correctly structured headings group content naturally, enabling users to skip through sections and find what they need quickly.

Challenge: Excessive navigation
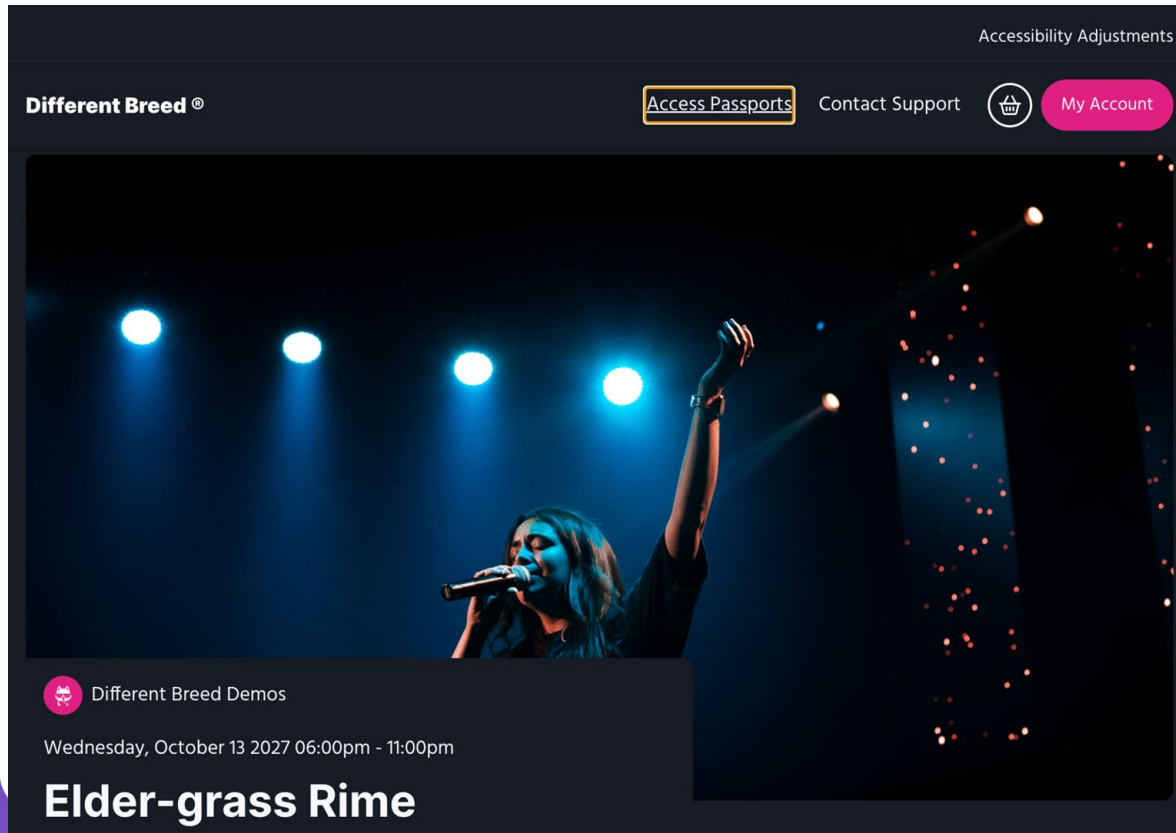
Mega Menus Create Overhead
Users must navigate through large, repetitive menus on every page, even when they're trying to access the main content.

Repetitive Navigation
Users need to perform the same actions (e.g., tabbing through a long menu) on every step of their journey, wasting time and increasing frustration.

No Direct Access
Without skip links or jump-to features, users are forced to tab sequentially through entire pages to get to key content or features.

28 Menu Items = 28 Tabs Per Page (4 x Pages In Flow: 112 Tabs)

Solution: Links that skip to desired areas
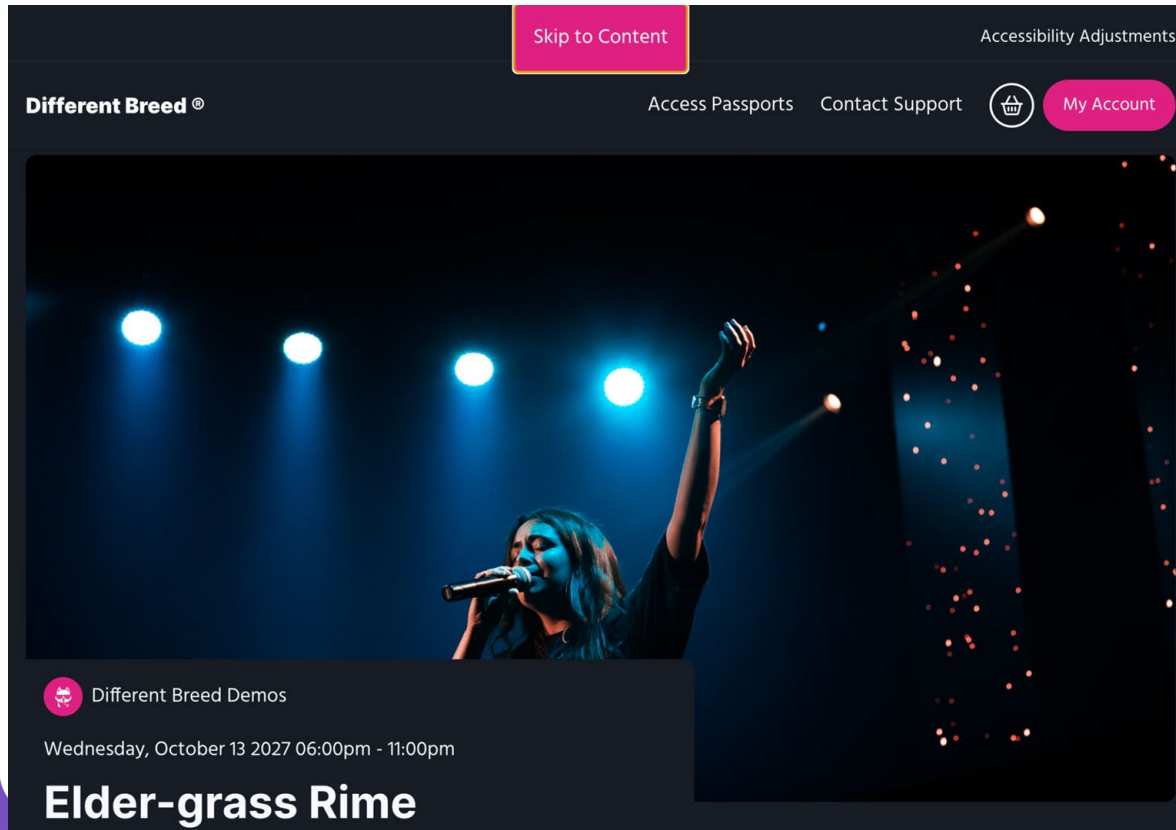
Skip To Landmarks - Provide links that let users jump directly to key sections, such as the main content or footer, avoiding repetitive tabbing through navigation menus.

Go Beyond With Skip To Features - On important pages, include skip links to natural next steps, like checkout or basket review, to streamline the user journey.

28 Menu Items = 1 Tabs Per Page + Skip To Content (4 x Pages In Flow: 4 Tabs)

Challenge: Visual changes and context

Add To Cart

1

Elder-grass Rime

Experience the fictional Elder-grass Rime music event from an exclusive raised platform. Unique vantage point tickets available.

View Event

Navigation Links

Links like "View Event" or "Learn More" rely on visible context, but screen readers only announce the link title, leaving users unsure of its purpose.

Feedback On Actions

Visual updates (e.g., popovers, cart icons) are missed by screen readers, leaving assistive tech users unaware of key interactions.

Solution: Provide feedback and context

Add To Cart

2

(click)

Processing

Ticket Added Successfully. Cart Now Contains 2 Items
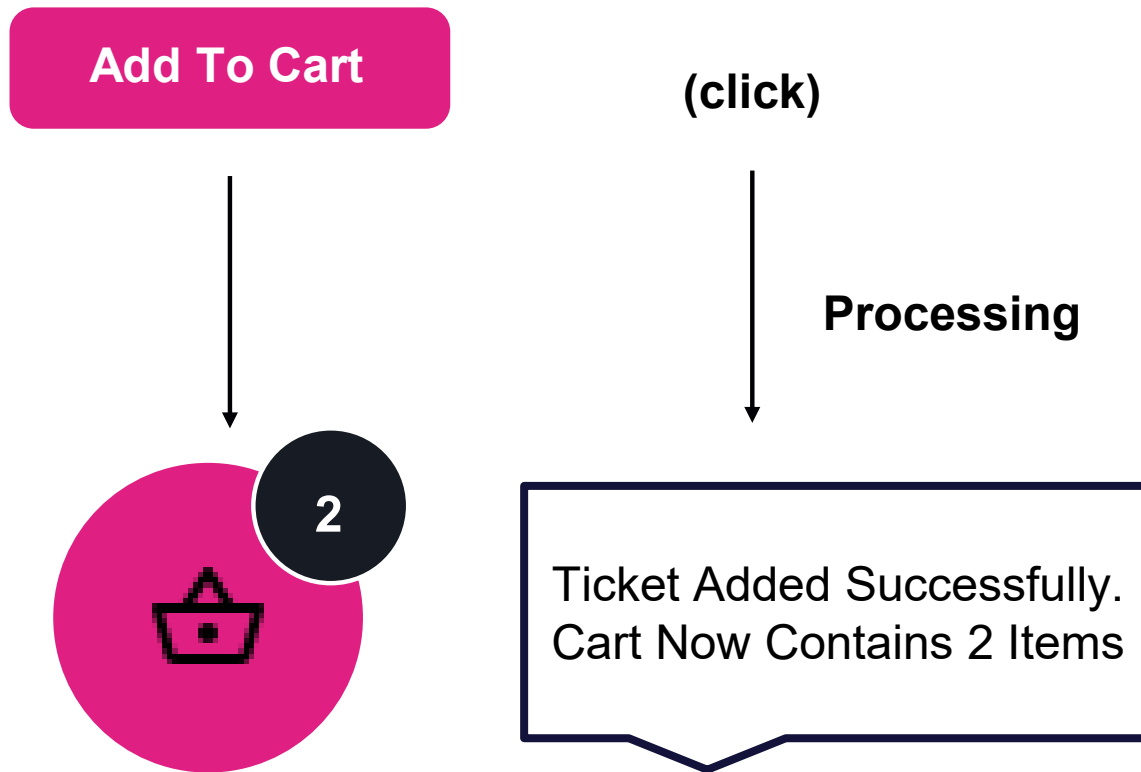
Design For Non-Visual Feedback - Use announcements like "Cart Updated" or "Error: Tickets are no longer available" to inform users of the results of their actions.

Drive Meaning With Context - Enhance button and link labels with details that provide clarity. For example:
- Instead of "View Event," use "View Event: Dinosaur Exhibit."
- Instead of "Add to Cart," use "Add 2 x General Admission Tickets to Cart."

Challenge: Reliance on colour for feedback

Your Seats

A14 Balcony	£20.00
A15 Balcony	£20.00
A16 Balcony Invalid Selection, Leaves Single Empty Seat In Row	£20.00

Processing Fee's + £2.50

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc vel elit tempor est porta rutrum sit amet at urna...

A15 Balcony	£20.00
A16 Balcony Invalid Selection, Leaves Single Empty Seat In Row	£20.00

Reliance On Colour Alone - Error states, like "Invalid Selection," are shown only in red text, making them indistinguishable for users with protan colour blindness and causing confusion.

Confusing for Assistive Tech Users - Without text or auditory cues, screen reader users cannot understand the issue or how to resolve it.

Solution: Contrast and alternative feedback

Ensure High-Contrast Colours - Choose a palette that meets a minimum contrast ratio of 3:1 to ensure all users can distinguish elements.

Introduce Indicators - Add text or symbols to error messages and important statuses to ensure feedback is clear and distinguishable.

Provide Feedback - Ensure when a field is invalid it provides the appropriate ARIA attributes to ensure the error is indicated to screen reader users.

How do we test for web page structure,feedback and colour?

Unstructured Pages
- Use [WAVE](#) or [Lighthouse](#) to analyze [headings](#) and [landmarks](#).
- Test navigation with a [screen reader.](#)

Excessive Navigation
- Use Tab and Shift+Tab to test skip links.
- Check for proper [semantic tags](#) (e.g., <nav>, <main>).

◎ **What is a visual impairment?**

◎ **Common challenges for hidden impairments**

◉ **Live demo**

◎ **Charting your accessibility journey**

◎ **Q&A**

◎ **What is a visual impairment?**

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● **Charting your accessibility journey**

◎ **Q&A**

Charting your accessibility journey

1. Take Stock Of Where You Are
2. Find Your Interest
3. Start To Understand Your Audience
4. Involve Us In Your Testing
5. Enjoy The Journey
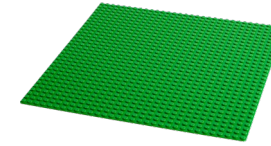
WCAG 2.2

WAI-ARIA

POUR

Customer Surveys

User Groups

A/B Testing

Access Audits

Secret Shoppers

Webinars

Accessibility Road Map

How can Different Breed ® help you do this?

1. Meet The Needs Of Your Customers
2. Understanding Your Audience
3. Improve With Feedback
4. Anticipate Demand

Start Free: https://differentbreed.events

Together, we can be a Different Breed ®

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Q&A

Get in Touch

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Showcase/Digital-Culture-Network

DigitalCultureNetwork

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Useful Resources

Automated Tools

- Use [WebAIM's Contrast Checker](#) to test text and background contrast.
- Run [Lighthouse's Accessibility Audit](#) in Chrome DevTools to identify colour-related issues.

Simulations and Manual Testing

- Simulate Colour-Blindness using [Chrome's developer tools](#) or tools like Sim Daltonism.
- Test in Monochrome mode to verify usability without relying on colour.
- [Enable High Contrast Modes](#) on devices to ensure readability under reduced colour perception.

Foreground

Hex Value

\# FFFFFF

Color Picker   Alpha

1

Lightness

Background

Hex Value

\# 222B36

Color Picker

Lightness

Contrast Ratio

14.31:1