

PoC project of ▶ implementation of WCAG 2.1 for Indico

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Software solutions

Introduction

The purpose of this presentation is to provide a proof of concept for implementing WCAG 2.1.

Topics:

- What is WCAG 2.1
- Benefits of WCAG 2.1
- The Proof of Concept

What is WCAG 2.1

Web Content Accessibility Guidelines –
**Internationally recognised set of recommendations
for improving web accessibility.**

It explains how to make digital services including
users with impairments to their:

- Vision
- Hearing
- Mobility
- Thinking and understanding

What is WCAG 2.1

WCAG 2.1 is based on 4 design principles:

- Perceivable
- Operable
- Understandable
- Robust

Benefits of WCAG 2.1

- Enhances usability for all website users and visitors
- Increases potential market reach and audience
- Ensures compliance with legal requirements
- Improves search engine optimization (SEO)

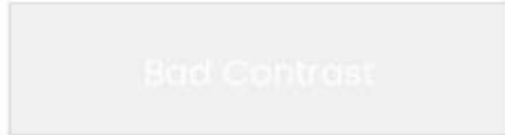
The Proof of Concept

Example improvements that have been made include:

- Increasing the contrast ratio.
- Implementing keyboard navigation.
- Ensuring keyboard focus is visible with an outline.
- Adding titles and text descriptions to elements that do not contain any text, which appear after hovering over icon buttons.
- Making minor changes to font sizes or replacing low visibility text with icons.

The Proof of Concept - contrast ratio

The visual presentation of text and images of text has a contrast ratio of at least 4.5:1



Contrast Ratio: 1.19 : 1



Contrast Ratio: 4.71 : 1



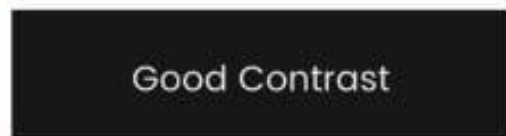
Contrast Ratio: 2.39 : 1



Contrast Ratio: 9.46 : 1



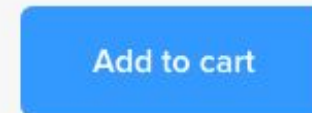
Contrast Ratio: 4.22 : 1



Contrast Ratio: 15.04 : 1

But WCAG requirements are not always optimal with respect to aesthetics

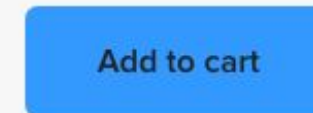
EASIER TO READ



FAILS

contrast ratio: **2.94**
required ratio: 4.5

HARDER TO READ



PASSES

contrast ratio: **5.41**
required ratio: 4.5

The Proof of Concept - contrast ratio

In terms of Indico it need modification of colour palette and we can increase contrast ratio and stay in the same color palette

Before



Starts Jun 21, 2022, 9:00 AM

Ends Jun 21, 2022, 11:00 AM

Europe/Warsaw

Your categories

You have no categories.

Happening in your categories

You have no categories.

After



Starts Jun 21, 2022, 9:00 AM

Ends Jun 21, 2022, 11:00 AM

Europe/Warsaw

Your categories

You have no categories.

Happening in your categories

You have no categories.

The Proof of Concept - keyboard navigation

Simplest way is to use existing implementation of keyboard navigation

- Native HTML like `<a>`, `<input>`, `<select>` `<button>`, are already accessible by keyboards

```
<a class="i-button text-color subtle icon-layout arrow js-dropdown" data-toggle="dropdown" title="{% trans %}Change theme{% endtrans %}" href="#"></a>
```

```
<a class="i-button arrow" data-toggle="dropdown"></a>
```

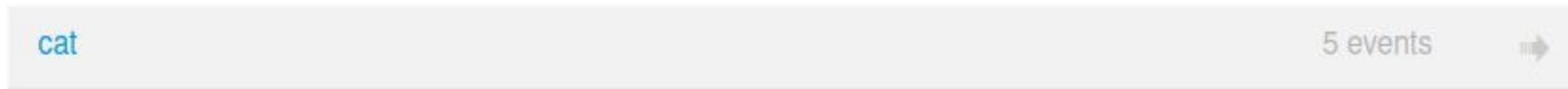
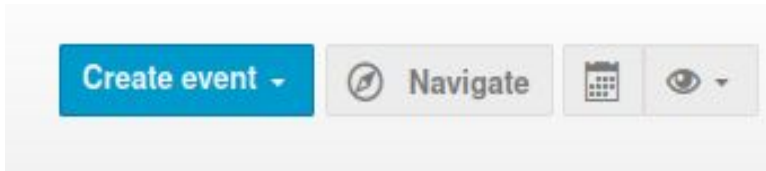
```
<button class="i-button arrow" data-toggle="dropdown"></button>
```

- Using tabindex

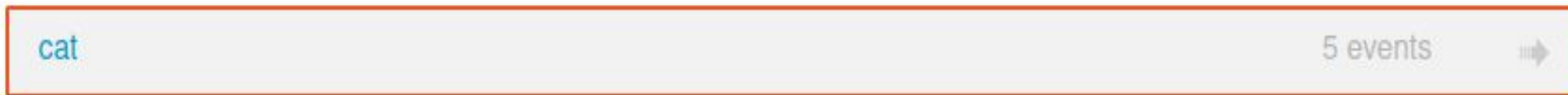
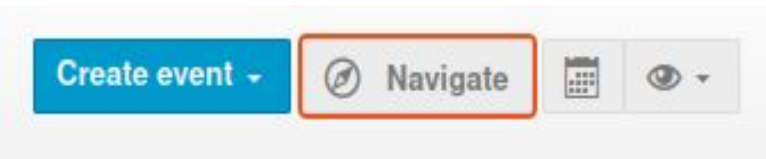
```
<div class="title-wrapper" tabindex="0">
```

The Proof of Concept - visible focus outline

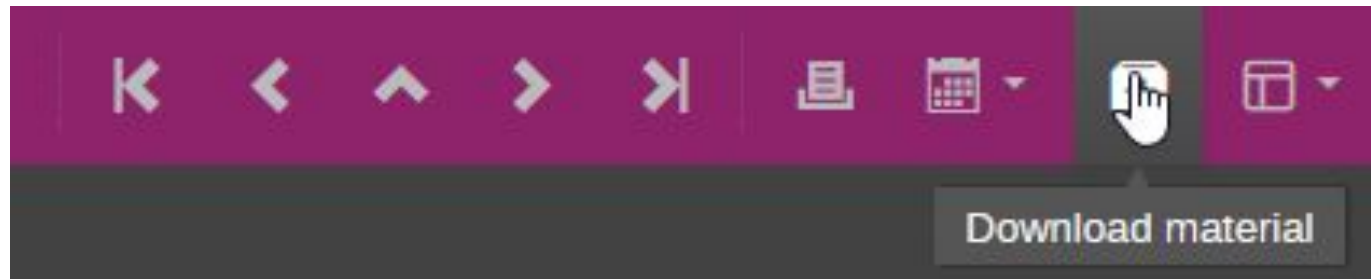
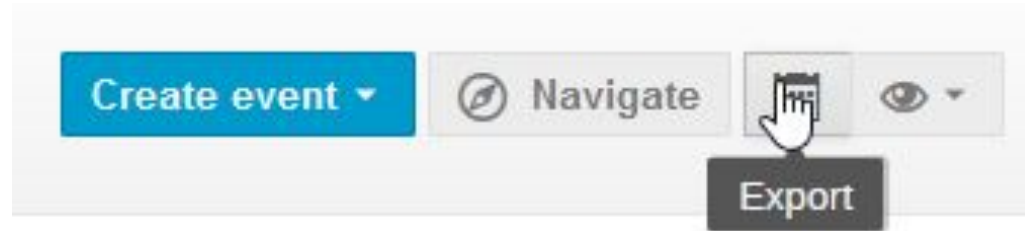
Before



After



The Proof of Concept - element title



The Proof of Concept - minor improvements

Before

 Jun 21 **lecture** (protected)

June 21, 2022
Europe/Warsaw timezone

After

 Jun 21 **lecture** 

June 21, 2022
Europe/Warsaw timezone

Conclusion

- Accessibility is a legal and moral obligation for equal access to online information and services.
- WCAG 2.1 improves website accessibility for people with disabilities.
- Accessible websites provide a better user experience for everyone and can increase revenue.
- Implementing WCAG 2.1 creates a more inclusive online environment for all.