



PARIS TEST CONF

# Getting Started with Accessibility Testing

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# SPEAKER

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## **Emmanuel Bonnet** **Founder/Partner PLUS QA**

- **Founder of PLUS QA in 2008 in Portland, Oregon**
- **Introduced to Accessibility testing in 2012**
- **Created an Accessibility team in 2015**
- **Helped dozens of clients test apps in 2020**



# AGENDA

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1. Overview about Accessibility
2. Understanding the Accessibility Guidelines
3. The importance of building accessible apps
4. Building a diverse and inclusive team



# PEOPLE WITH DISABILITIES

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**15%** of the total world population have a disability

**26%** of the US population have a disability

**One-fifth** of  
the global  
population  
has a  
disability



**12 million**  
people in the  
US have  
difficulty  
**seeing**



**11 million**  
people in  
the US have  
difficulty  
**hearing**



**19+ million**  
people in the  
US have a  
**physical**  
disability



**15+ million**  
have  
**cognitive or**  
**emotional**  
**function**  
difficulty



# TYPES OF DISABILITIES

## Visual



- Blind
- Low Vision
- Color Blind
- Deafblind



- Screen reader
- Magnification
- Color contrast

## Hearing



- Hearing Impaired (varies from mild to profound hearing loss including deaf)



- Video captions are provided
- Text alternatives are provided for any non-text content
- Sign language for live content

## Physical



- Includes users who cannot use a mouse or a keyboard



- Keyboard-testing only or mouse only
- Screen reader/voiceover pass
- Usability when images turned off

## Speech



- People who cannot speak



- Speech Disabilities (test for alternate means of communication)

## Cognitive



- People with dyslexia, ADD and epilepsy



- Alternatives for time-based media are provided
- Users have enough time to read and use content
- Usability when images turned off
- Mouse only



# ACCESSIBILITY GUIDELINES

W3C



WAI

Web Accessibility Initiative



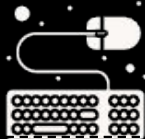
WCAG 2.0 and  
2.1 guidelines

**P**erceivable



- Text Alternatives
- Time-based Media
  - Adaptable
- Distinguishable

**O**perable



- Keyboard Accessible
  - Enough Time
- Seizures and physical reactions
  - Navigable
- Input Modalities

**U**nderstandable



- Readable
- Predictable
- Input Assistance

**R**obust

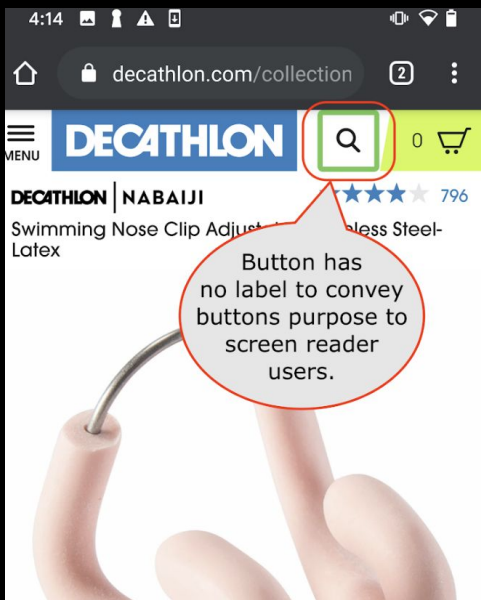


- Compatible  
(website's content and back-end coding to be compatible with assistive technologies)

**POUR**



# ACCESSIBILITY VIOLATIONS



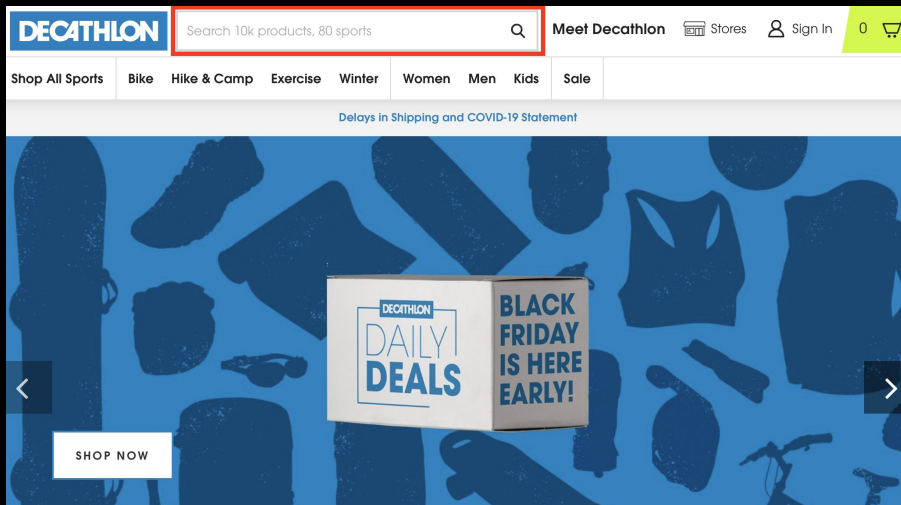
**Decathlon.com**

Search Button is not labeled,  
Screen Reader will only read “button” and  
won’t help the user to understand this is a  
search button.

Violates WCAG 4.1.2 Name, role, value (Level A):  
<https://www.w3.org/WAI/WCAG21/Understanding/name-role-value>



# ACCESSIBILITY VIOLATIONS



**Decathlon.com**

Search Field cannot be accessed with VoiceOver command

Violates WCAG 2.1.1 Keyboard (Level A):  
<https://www.w3.org/WAI/WCAG21/Understanding/keyboard>




# ACCESSIBILITY VIOLATIONS

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## Lego.com Creating a User Account

Terms and Conditions link does not receive keyboard navigation focus

Violates WCAG 2.1.1 (All functionality should be keyboard accessible):  
<https://www.w3.org/WAI/WCAG21/Understanding/keyboard>



Email address

Password

Date of birth

Month Day Year

MM DD YYYY

Country

United States

☐ [Accept Terms and Conditions](#)

When you agree to the [Terms and Conditions](#), you also consent to our use of your personal information to process and operate your LEGO® Account. To see how to control your personal data, please see our privacy policy.

Next



# CROSS PLATFORM TESTING TOOLS

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## Desktop and Mobile testing



### Windows

- NVDA
- Narrator
- Jaws Screen Reader

### Mac OS

- Voice Over



### iOS

- VoiceOver

### Android

- TalkBack



**iOS 13**  
**iOS 14**



**Android 10**  
**Android 11**



# BUILDING A DIVERSE AND INCLUSIVE TEAM

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1. **Create a mission for your team**
2. **Sharing new tools and techniques of testing**
3. **Hiring a language specialist**
4. **Bringing value to your product**



# BUILDING A DIVERSE AND INCLUSIVE TEAM

## Team Mission



- Create a mission for your team

- Hire testers with disabilities

- Share knowledge within your team and build a solid structure

## Tools



- Jira

- Google Sheet

- MS Excel

- Custom solution

-  Test Rail

-  Xray

## Language Specialist



- A tester with disabilities is a tester with a unique skill set

- Learn and grow from testers using assistive technologies

- There is no better speaker than a native one

## Product Value



- Accessibility experts increase product value

- Help to make product compliant

- Increase product audience



# WHY IS ACCESSIBILITY IMPORTANT?

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1. All businesses with an online presence are required by law to be accessible to everyone.

*“Accessibility is a basic human right.” - Abdul Kamara*

2. As a brand, being accessible is important to increase your audience.

3. For us testers, it opens the QA industry to a new range of testers with disabilities.




# THANK YOU MERCI

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# RESOURCES

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Méthodologie d'évaluation sur l'accessibilité des sites Web (niveau AA) (FR)

<https://wet-boew.github.io/v4.0-ci/demos/wamethod/wamethod-AA-fr.html#project>

Introduction à l'accessibilité du web <https://www.w3.org/WAI/fundamentals/accessibility-intro/fr>

World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI)

<https://www.w3.org/WAI/about/>

Best Accessibility Apps in 2020 (PLUS QA Blog)

<https://plusqa.com/2020/03/26/the-best-accessibility-apps-in-2020/>

WorldBank.org

<https://www.worldbank.org/en/topic/disability#:~:text=Results,One%20billion%20people%2C%20or%2015%25%20of%20the%20world's%20population%2C,million%20people%2C%20experience%20significant%20disabilities>

