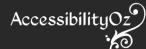# Video player accessibility
http://a11yoz.com/player17

Dyslexia

Moderate vision impairment

Severe vision impairment

Epilepsy

Migraines

Physical impairment

Fibromyalgia

Multiple Sclerosis

Crohns Disease

PTSD

Aspergers

It's not just about vision impairments

Our Services

- Audits
- Mobile testing
- Building web sites
- CMS testing
- Accessible design
- Video accessibility

- User testing
- OS / browser testing
- Consultation
- Accessible documents

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Our Products

- OzPlayer
- OzART
- OzWiki
- A11y Voices

More information:

www.accessibilityoz.com

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About video

- One-third of all online activity is watching video
- Over half of all video content is viewed on mobile
- Over 500 million people are watching video on Facebook every day (100 million hours)
- More than 500 million hours of videos are watched on YouTube every day

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About video

- 85% of Facebook videos are watched without sound
- Completion of a video with captions doubles compared to without captions
- Videos with transcripts earned 16% more revenue than videos without transcripts
- 80% of people that use captions are **not** Deaf or Hard Of Hearing

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Common accessibility issues for video

- Inadequate keyboard access
- Insufficient control and operation
- Incorrect implementation

- Inaccessible content
- Inability to gain a full and complete understanding of all information contained in the video

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Resources

AccessibilityOz – About – Articles and Interviews:

- 8 steps to create accessible video
- Video Accessibility Principles
- Accessible Videos are Your Friend

AccessibilityOz – About - Presentations

- Video and Accessibility webinar

AccessibilityOz – Factsheets

- Video accessibility principles, impact on users, testing checklist

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So how do you create an accessible video experience?

Accessible video

1. Accessible content in the video
2. Accessible video player
3. Never auto-play
4. No flashing content
5. Accessible transcript
6. Accessible captions
7. Accessible audio descriptions

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Video player testing: 37 players in all

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Video players tested

- AblePlayer
- Acorn
- Adobe
- AFB
- Amazon
- AMI Player
- Brightcove
- Facebook
- JW Player

- Kaltura
- MediaElement
- MediaSite
- Ooyala
- OzPlayer
- Panopto
- PayPal
- Plyr
- RAMP

- Video.js
- Vidyard
- Vimeo
- Viostream
- Wistia
- Yahoo
- YouTube
- YouTube embed

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About the testing

Windows 10:

- Google Chrome 61.0.3163.

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Showstoppers

- Audio is not played automatically unless the user is made aware this is happening or a pause or stop button is provided

- Video does not contain a keyboard trap

- Full-screen video does not contain a reverse keyboard trap

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Round One Knockouts

- AblePlayer
- ~~Acorn~~
- ~~Adobe~~
- ~~AFB~~
- ~~Amazon~~
- ~~AMI Player~~
- ~~Brightcove~~
- ~~Facebook~~
- JW Player

- ~~Kaltura~~
- ~~MediaElement~~
- MediaSite
- ~~Ooyala~~
- OzPlayer
- Panopto
- ~~PayPal~~
- Plyr
- ~~RAMP~~

- ~~Video.js~~
- ~~Vidyard~~
- ~~Vimeo~~
- ~~Viostream~~
- ~~Wistia~~
- ~~Yahoo~~
- ~~YouTube~~
- YouTube embed

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Controls

- Video volume can be changed independent of system volume

- Color alone has not been used to convey information

- Color contrast is sufficient (AA)

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Keyboard

- Video is keyboard accessible
- Video has the correct keyboard focus order
- Video controls have a keyboard focus indicator
- Video controls have a highly visible keyboard focus indicator (AA)

Transcripts and captions

- Where the video supports a transcript, the video transcript is easy-to-find

- Video supports captions

- Video captions are easy-to-find

- Video caption color contrast is sufficient (AA)

- Where video supports multi-lingual captions, the correct LANG attribute is used

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Audio descriptions

- Video supports audio descriptions

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Statistics at the end of testing

Lowest to highest:

- MediaSite: 57%

- Panopto: 64%

- YouTube embedded, Plyr & JWPlayer: 71%

- AblePlayer : 79%

- Kaltura: 86%

- OzPlayer: 100%

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Issues

MediaSite (57%)

- Low color contrast
- Low or no keyboard accessibility
- No keyboard focus indicator
- Inaccurate keyboard focus order
- No audio descriptions

Panopto (64%)

- Color alone
- Low color contrast
- No highly visible keyboard focus indicator
- Transcript not easy to access
- No audio descriptions

Issues

YouTube embedded (71%)

- Low color contrast

- Low caption color contrast

- No highly visible keyboard focus indicator

- No audio descriptions

Plyr (71%)

- Color alone

- Low color contrast

- No highly visible keyboard focus indicator

- No audio descriptions

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Issues

JWPlayer (71%)

- Color alone
- Low color contrast
- No highly visible keyboard focus indicator
- No audio descriptions

AblePlayer (79%)

- Color alone
- Low color contrast
- Transcript is not easy-to-access

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Issues

Kaltura (86%)

- Low color contrast
- No audio descriptions

OzPlayer (100%)

- Yay! (A sigh of relief!)

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And then there was eight…

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"Video is a very important source of information and is a remarkable of culture now. Blind individuals must not be excluded from access to data provided in video content. You can't see, but you can understand."

Screen reader testing

Windows 10 with JAWS:

- IE
- FireFox
- Chrome

Windows 10 with NVDA:

- IE
- FireFox
- Chrome
- Edge

iOS:

- Safari with VoiceOver

Android

- Chrome with TalkBack

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Showstoppers

- Video could not be played

Round Two Knockouts

- AblePlayer

- JWPlayer

- Kaltura

- MediaSite

- OzPlayer
- ~~Panopto~~

- Plyr

- YouTube embed

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Screen reader tests

- Player's controls are labelled
- Player's controls are easy-to-find
- Button status (on / off) is announced correctly
- Volume level is announced while changing
- Current time of the video is announced when requested
- Fast forwarding or rewinding is operable
- The title of the video is easy-to-find

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Screen reader test

- Captions are read automatically
- Where a transcript is provided, the transcript is easy-to-find

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Statistics at the end of testing

Lowest to highest:

- JW Player: 59%
- MediaSite and YouTube embed: 69%
- Kaltura: 73%
- Plyr: 77%
- AblePlayer: 79%
- OzPlayer: 98%

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Issues

JWPlayer (59%)

- Player's controls are not easy-to-find

- Button status / volume level is not announced

- Captions not read automatically

- FF / RW not available on mobile

MediaSite (69%)

- Player's controls are not easy-to-find

- Button status is not announced

- Captions not read automatically

- FF / RW not available on mobile

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Issues

YouTube embed (69%)

- Player's controls are not easy-to-find

- Captions are not read automatically

- Caption text is not easy-to-find

- Caption status not announced on Android

Kaltura (73%)

- Player's controls are not easy-to-find

- Volume level not announced

- Captions are not read automatically

- FF and RW not available on Android

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Issues

Plyr (77%)

- Player's controls are not easy-to-find

- Button status / volume level is not announced

- Captions are not read automatically

AblePlayer (79%)

- Player's controls are not easy-to-find

- Button status not read correctly

- Could not operate captions with JAWS or NVDA or on mobile

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Issues

OzPlayer (98%)

- FF / RW is not available on Android Chrome

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And then there was seven…

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About the testing

Mobile:

- Google Pixel 1, Android 8.0, Chrome: 62.0.3202.73;

- iPhone 7+, iOS 10.3.2, Safari

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Showstoppers

- Cannot play video
- Cannot pause video
- Video crashed browser

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Round Three Knockouts

- AblePlayer

- ~~Kaltura~~

- ~~MediaSite~~

- OzPlayer

- JWPlayer

- Plyr

- ~~YouTube embed~~

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Statistics at the end of testing

Lowest to highest:

- JW Player: 75%
- AblePlayer: 79%
- Plyr: 86%
- OzPlayer: 89%

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Mobile tests

- Video volume can be changed independent of system volume

- Color alone has not been used to convey information

- Color contrast is sufficient (AA)

- Where the video supports a transcript, the video transcript is easy-to-find

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Mobile tests

- Video supports captions
- Video captions are easy-to-access
- Video caption color contrast is sufficient (AA)
- Where video supports multi-lingual captions, the correct LANG attribute is used
- Video supports audio descriptions

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Issues

JW Player (75%)

- Volume cannot be changed independent of system volume

- Color alone

- Low color contrast

- No audio descriptions

AblePlayer (79%)

- Volume cannot be changed independent of system volume

- Color alone

- Low color contrast

- Captions sometimes appear twice

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Issues

Plyr (86%)

- Color alone
- No audio descriptions

OzPlayer (89%)

- Video volume cannot be changed independent of system volume
- No audio descriptions

And then there was four…

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About the testing

Mobile:

- iPad, iOS 10, Zagg keyboard

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Showstoppers

- Cannot play video with keyboard
- Cannot pause video with keyboard
- Crashed browser

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Round Three Knockouts

- AblePlayer

- OzPlayer

- ~~JWPlayer~~

- ~~Plyr~~

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Statistics at the end of testing

Lowest to highest:

- AblePlayer: 100%
- OzPlayer: 100%

What we tested:

- Controls are available to the keyboard

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Final results

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Final results

	AblePlayer	OzPlayer
Testing	79%	100%
Screen reader testing	79%	98%
Mobile testing	79%	89%
Mobile keyboard testing	100%	100%
Total	**84%**	**97%**

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Access AblePlayer and OzPlayer

AblePlayer:

- http://ableplayer.github.io/ableplayer

OzPlayer:

- http://www.accessibilityoz.com/ozplayer
- Code Generator: https://www.accessibilityoz.com/ozplayer/ozplayer-code-generator/

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It's still not good enough

"To enjoy online materials you need to have three browsers, three screen readers and a smartphone with accessibility features, and extreme patience, and still satisfaction is not guaranteed."

What's next?

Testing on Mac
Testing on other browsers

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What's next?

Did we miss any players?

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We are happy to share our results

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Questions?

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