



# Video player accessibility

<http://a11yoz.com/faf16-video>









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

# Our Products

- OzPlayer
- OzART
- OzWiki

More information:  
[www.accessibilityoz.com](http://www.accessibilityoz.com)



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# About video

- Video makes up approx 65% of all search results
- 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

# 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





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





# Video player testing



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# Video players tested

- YouTube site
- YouTube embedded
- Vimeo site
- Vimeo embedded
- PayPal
- Floe Project
- AFB
- Able Player
- Acorn
- eStandards
- Kaltura
- Brightcove
- RAMP
- PANAPTO
- MAGpie
- Video.js
- Plyr
- Blackboard
- JWPlayer
- OzPlayer



# About the testing

## Windows 8.1 (64 bit):

- Firefox: 42.0;
- Internet Explorer 11;
- Google Chrome 46.0.2.

## Screen readers:

- JAWS 16;
- NVDA 2015.3;
- Window-Eyes 9.2.1.0;

## Mobile:

- Samsung Galaxy Phone, Android 6.0, Chrome: 46.0.2490.76;
- Samsung Galaxy Phone, Android 6.0, Firefox: 42.0

# Accessibility testing

- Audio is not played automatically unless the user is made aware this is happening or a pause or stop button is provided
- Video is keyboard operable (no keyboard trap)
- Video is keyboard accessible
- Video captions are correct
- Video volume can be changed independent on the system volume
- Link to the video is clear



# Accessibility testing

- Video has a transcript
- Link to the video transcript is clear
- Video transcript is accessible
- Video transcript or link to the transcript is provided at the video
- Video is available and works well with Flash disabled
- Video has audio description

# Screen reader testing

- Player's controls are labelled
- Player's controls are easy to locate
- Button status (on or off) is not accessible or read incorrectly by screen readers
- Next or Previous are easy to find
- Volume level is announced while changing
- Current time of currently played movie is accessible for screen reader



# Screen reader testing

- Fast forwarding or rewinding is operable
- The title of currently played movie is easy to check
- Caption or subtitles can be read by a screen reader
- Transcript's text is easy to find





# Video player testing results

## The worst of the worst

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# The worst of the worst: under 50% accessible

## 30% accessible

- JWPlayer

## 32% accessible:

- YouTube embed
- Vimeo embed

## 35% accessible:

- Brightcove
- Panapto
- Blackboard

## 36% accessible:

- YouTube site

## 39% accessible:

- Vimeo site

## 41% accessible:

- RAMP

## 43% accessible:

- Acorn

## 44% accessible:

- MAGpie



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# The average: between 50% and 60% accessible

## 50% accessible:

- PayPal

## 55% accessible:

- AFB
- Plyr
- Kaltura

## 57% accessible:

- Floe

## 58% accessible:

- Video.js



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# Above average: between 60% and 80% accessible

67% accessible:

- eStandards

70% accessible:

- AblePlayer



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# The best: 81%

## 81% accessible:

- OzPlayer



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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.”

# Just some of the YouTube embedded errors

- Subscribe button is not keyboard accessible
- Full Screen button is unlabelled and inaccessible to all screen readers
- WindowEyes, IE reads controls as “button” or “Submit, inactive”
- NVDA, Chrome reads both the volume and progress bar as “Slider” only
- Could only play the video – no access to any other controls with Android, Talkback



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# Just some of the Brightcove errors

- Video controls use color alone
- Color contrast is not sufficient
- Video controls do not have a highly visible KFI
- JAWS, IE and FF controls are not read properly
- Full Screen button is unlabelled and inaccessible to all screen readers
- Progress and volume bars are not operable on Android, Talkback



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# PayPal errors

- Seek bar is not keyboard accessible, but does have buttons that skips (but not in small periods)
- CC button has color contrast issue
- Seek bar uses color to show position
- No button to stop the video on Android, Talkback
- Volume button not accessible on Android, Talkback



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# Kaltura errors

- JAWS, NVDA, WindowEyes on Firefox, IE and Chrome, labels are read out incorrectly
- Android, Talkback could not find volume controls, unable to use progress bar
- Much difficulty reading aloud captions



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# Video.js

- Customise options can be focused on with keyboard, but cannot be modified
- Video controls do not have a highly visible KFI
- Video KFO is not in the correct reading sequence
- Going full screen at first seems ok, but when you tab to the end of the buttons, it then continues on behind the full screen and onto the page.
- Video controls could not be used on Android, Talkback



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# OzPlayer errors

- NVDA doesn't read expanded shortcuts
- Has KFI but the transcript visibility is very poor
- Could not access audio descriptions on Android, Talkback
- Labels for captions and audio descriptions difficult to understand on FireFox, IE and Chrome (JAWS, NVDA, WindowEyes)



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# What's next?

## Testing on iOS

## Testing on Mac

## Any players missed?



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# Questions?

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