

Container, Capability, Content

Accessibility Considerations for Learning Management Systems

Sean Keegan

Web Accessibility Instructor

High Tech Center Training Unit of the
California Community Colleges

The answer is...

ATutor
(<http://www.atutor.ca/>)

Any idea what the
question may be?

Overview

- Technical vs. Usable Accessibility
- Questions that started it all...
- Defining the 3 C's
- Planning and Supporting Accessibility
- Resources

Defining Accessibility

- Technical Accessibility
 - Content developed such that it meets "X" technical standard
- Usable Accessibility
 - Content developed such that an individual with a disability can interact with the information

Questions...

- How accessible is "X" LMS, because that is what we use on our campus?
- Can a student with a disability use "X" LMS if they enrolled in our online courses?
- We need to get a new LMS and have been told none are fully accessible or 508-compliant – what are we supposed to do?

The 3 C's

Container

Capability

Content

Container



Container

- Navigation
 - Headings, Skip Links, Tab-key
- Images
 - Was description provided (alt) and meaningful
- Frames
 - Meaningful description
- Discussion Boards/Forums
 - Was the interface functional with AT

Container: Navigation

	Blackboard 7.1	Moodle 1.8
Headings	Limited	Multiple
Skip Links	Limited	Multiple
Tab-key	Functional	Functional

<h1>  Course Materials



Assignment One

Assignment One

You are to complete assignment one. This assignment is to introduce yourself and say something nice about the instructor.

Negative people will be beaten until they are happy.



Assignment Two

Assignment Two

This is assignment two and all the relevant information contained within. In order to pass this class, you will need to bring me a shrubbery.

Not too tall, and not too short.



Assignment Three

Remember to Finish Assignment Two!

Remember to finish the discussion board option in assignment two.

<h1> Sean's Development Course

[Home](#) ▶ [Dev_Sean_Keegan](#)



<h2> People

[Participants](#)

<h2> Activities

[Forums](#)
 [Lessons](#)
 [Resources](#)

<h2> Search Forums

[Advanced search](#)

<h2> Administration

[Turn editing on](#)
 [Settings](#)
 [Assign roles](#)
 [Groups](#)
 [Backup](#)
 [Restore](#)
 [Import](#)

<h2> Weekly outline

[News forum](#)

<h3> [February 26 - March 3](#)

<h3> [March 4 - March 10](#)

<h3> [March 11 - March 17](#)

<h3> [March 18 - March 24](#)

<h3> [March 25 - March 31](#)

<h3> [April 1 - April 7](#)

[Welcome Message!](#)

[Welcome and Introduction](#)

[PowerPoint Presentation](#)

[Introduction](#)

Container: Images

	Blackboard 7.1	Moodle 1.8
Descriptions Provided	Yes	Yes
Informative	Varies	Yes



Course Discussions: Assignment Two



Thread



Remove



Collect



Flag



Clear Flag



Mark Read



Mark Unread

April 1 - April 7



 [Welcome Message!](#) → ⌄ ✍ ✕ 👁

 [Welcome and Introduction](#) → ⌄ ✍ ✕ 👁 👤

 [PowerPoint Presentation](#) → ⌄ ✍ ✕ 👁

 [Introduction](#) → ⌄ ✍ ✕ 👁 👤



Add a resource...



Add an activity...



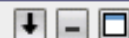
Container: Frames

	Blackboard 7.1	Moodle 1.8
Frames Identified	Yes	NA
Informative	Yes	NA

Container: Discussions

- Discussion framework is more complex in Blackboard vs. Moodle interface
 - Multiple sort, view, and reply options
- The addition of more features adds to the overall complexity of the interface
- Deeply threaded discussions can be challenging to interact and respond

Thread: [Movie References](#) [Reply](#)



Total posts: 6 Unread posts: 2

[< Previous Thread](#)

<input type="checkbox"/>	<input type="checkbox"/> RE: Movie References	Sean's test Student	4/7/08 12:33 PM	
<input type="checkbox"/>	<input type="checkbox"/> RE: Movie References	Sean's test Student	4/7/08 3:52 PM	
<input type="checkbox"/>	<input type="checkbox"/> RE: Movie References	Sean's test Student	4/7/08 4:08 PM	
<input type="checkbox"/>	<input type="checkbox"/> RE: Movie References	Sean Keegan	4/7/08 4:16 PM	

[Refresh](#) Select All [Go](#)

Subject: RE: Movie References

[Reply](#)

[Quote](#)

[Modify](#)

[Set Flag](#)

[Remove](#)

Author: [Sean's test Student](#)

[< Previous Post](#) | [Next Post >](#)

Posted date: Monday, April 7, 2008 12:33:57 PM PDT

Last modified date: Monday, April 7, 2008 12:33:57 PM PDT

Total views: 8 Your views: 1

[Show Parent Post](#)

This is a response to the message. I really do not like green eggs and ham.



Some Irish Sayings

by [Sean Keegan](#) - Monday, April 7, 2008, 02:25 PM

Irish Toasts

(as opposed to plain bread)

As you slide down the banisters of life may the splinters never point the wrong way.

May your troubles be as few and as far apart as my Grandmothers teeth.

Any others?

[Edit](#) | [Delete](#) | [Reply](#)

Display replies in nested form

Display replies flat, with oldest first

Display replies flat, with newest first

Display replies in threaded form

Display replies in nested form



Re: Some Irish Sayings

by [Sean's Test Student](#) - Monday, April 7, 2008, 01:50 PM

Here is another Irish Toast...

Here's to our wives and girlfriends:

May they never meet!

Container

- The container is a fixed environment
- Accessibility features (or limitations) are not easily changed by the institution
- You **can** control the content and the features available for use in the LMS

Container

Capability

Content

Capability

- Capability - the ability of the LMS to support the creation of accessible content
- Instructors may choose to use the LMS interface to create materials
- The LMS interface should allow, or prompt for, the inclusion of information that supports access

Capability

	Blackboard 7.1	Moodle 1.8
Add Text Descriptions to Images	Yes	Yes
Add Headings to Content	Yes	Yes
Add Headers to Data Tables	Not in a WYSIWYG editor	Not in a WYSIWYG editor

1 Select Image

Browse

Browse...

or Specify Source URL

For example, <http://www.myschool.edu/>

2 Image Options

Set Width

Set Height

Image Target URL

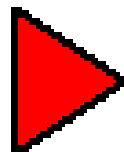
For example, <http://www.myschool.edu/>

Launch in new window

Yes No

Border

None 



Alt Text

Trebuchet

1 (8 pt)

Heading 2

Lang

B

I

U

~~S~~

x₂

x²

Welcome to the I

ion!

In this forum, please introduce yourself and tell us something that is very unique (for example, you have a pet or you are all blue like a smurf).

and tell us something that is very unique (for example, you have a pet or you are all blue like a smurf).

Path: body » h2



Container

Capability

Content

Content

- Content includes the materials uploaded into the LMS "container"
 - PowerPoint presentations
 - PDF / MS Word documents
 - Audio / Video files
 - Web pages, images, interactive experiences
- Accessibility of uploaded content is not the responsibility of the LMS "container"

Content: Format Options

- Web pages should be the initial format when preparing materials for online viewing
- If content cannot be delivered as Web page, provide options to access materials
 - [Course Outline \[MS Word\]](#)
 - [Course Outline \[PDF\]](#)

Some Suggestions

- Use Headings for navigation
- Include descriptions for relevant images
- Provide descriptive Hyperlinks
 - Click [Here](#) for the Course Outline
 - Click Here for the [Course Outline](#)
- Include transcripts for Audio and captions for Video content

"Accessible" Authoring

- Creating accessible (and usable!) content requires ongoing training & support
 - Each person can contribute to the course development process and integrate accessibility into the authoring of materials
- Authoring accessibility into content can be integrated into key checkpoints
 - Curriculum approval and review process
 - Self-assessments using simple checklists
 - During training on using the new LMS platform

Accessibility Issue	Yes	No	N/A
Appropriate text descriptions for images.			
Transcript or alternative provided for audio content.			
Captioning provided for video/media content.			
At least one video is opened on the user's computer (i.e., video is not embedded on the Web page).			
Hyperlinks provide clear information as to end location or function.			
Other elements beside color are used to convey information (e.g., asterisk, etc.).			
Sufficient color contrast is present to differentiate between the			

Use Caution

"Gatekeeper" models are not scalable

One person should not be the focal point for all materials to be evaluated and repaired

Final Thoughts

- Addressing accessibility in LMS platforms requires separating the system into discrete components
- For instance -
 - A LMS "container" may be fully accessible, yet "content" may fail in providing access for all students

Final Thoughts

- It is not just about an accessible LMS platform
- It is about addressing the entire infrastructure for online teaching and learning
 - Business needs of the institution for a LMS
 - Functions and limitations of the LMS container, including accessibility
 - Training and support for authoring course content and using the LMS platform
 - Resolving students needs when accommodations are necessary in an online environment

Planning Ahead...

- Do you have procedures or support in place for an online student who:
 - Wants to know if disability services are available?
 - Requests materials in alternate formats?
 - Is eligible to receive extended testing time for assignments?
 - Is required to access 3rd-party content that may not be accessible? (e.g., YouTube videos, interactive exercises, etc.)

Additional Resources

- High Tech Center Training Unit
<http://www.htctu.net>
- Blackboard Accessibility Interest Group
<http://cita.disability.uiuc.edu/collaborate/blackboard/>
- Moodle Accessibility Forum
<http://moodle.org/mod/forum/view.php?f=820>
- iCITA Web Best Practices
<http://html.cita.uiuc.edu/>
- WebAIM
<http://www.webaim.org/>

Thank you

Sean Keegan
High Tech Center Training Unit
California Community Colleges
<http://www.htctu.net>