



# Technical Guidelines for Digital Learning Content: *A Tool for Development, Evaluation and Selection*

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# The Process

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- “wishlist” from Florida
- SREB Educational Technology Cooperative
- Digital Learning Content Initiative established in August 2004
- Reviewed in April 2005
- Revised & published July 2005

# SREB

*Educational Technology  
Cooperative*

July 2005

Southern  
Regional  
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## Technical Guidelines for Digital Learning Content

*Development, Evaluation, Selection,  
Acquisition and Use*

advanced learning  
technologies  
  
university system of georgia



# Structure

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- Introduction
- Essential Issues & Technical Guidelines
- Guide for Review
- Related Terms and Web Sites
- Additional Resources

## Guide for Review

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*This guide for review can aid in evaluation of conformance with the suggested guidelines.*

No.	Guidelines	Conformance		
		Complete	Partial (Explain)	No
1	<i>All content adheres to current WC guidelines.</i>			
2	<i>Content to IMS Content Packaging Specification (or later 1.0) conformance.</i>			
3	<i>Content to SCORM 1.2 conformance as a minimum (includes IMS Content Packaging Specification 1.1.2).</i>			
4	<i>All content is SGB conformance.</i>			
5	<i>All content follows the current Web Accessibility Guidelines (Web Content Accessibility Guidelines (WCAG) 1.0).</i>			
6	<i>Content conforms to the National Institute's own National Accessibility Standard (NIMAS).</i>			
7	<i>Two-dimensional graphics conform to current Scalable Vector Graphics (SVG) format.</i>			
8	<i>Rich media are provided in the user's choice of format, or the source code is provided to enable the user to convert the media to the format of choice.</i>			
9	<i>Rich media are available in low and high bandwidth.</i>			

## *SREB Digital Learning Content Toolbox*

The SREB Digital Learning Content ToolBox provides policy and technical digital content resources for schools, colleges and state education agencies. The resources are organized into two topical areas: accessibility and portability/usability. Accessibility addresses Section 508 of the federal Rehabilitation Act and related disability issues. Portability/usability relates to the migration of digital content to student learning materials, including e-courses.

### *Accessibility*

#### **Accessibility Guidelines for Section 508**

- ◆ Web Content Accessibility Guidelines 2.0  
<http://www.w3.org/TR/2004/WD-WCAG20-20040730/>
- ◆ Checklist of Checkpoints for Web Content Accessibility Guidelines 1.0  
<http://www.w3.org/TR/WAI-WEBCONTENT/full-checklist.html>
- ◆ WebAIM Section 508 Checklist  
<http://www.webaim.org/standards/508/checklist>
- ◆ Comparison WCAG and Section 508 Web  
<http://www.jimthatcher.com/sidebyside.htm>

#### **Accessibility Validation Tools**



# Intended audience

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- Providers
- Developers
- Distributors
- Procurement Officials
- Users



# Essential Issues

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- Accessibility
- Portability
- Usability
- Reusability



# Technical Guidelines

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1. All content adheres to current W3C guidelines.
2. Content is IMS Content Packaging Specification (at least 1.0) conformant.
3. Content is SCORM 1.2 conformant at a minimum (includes IMS Content Packaging Specification 1.1.2).
4. All content is 508 conformant.
5. All content follows the current Web Accessibility Guidelines (Web Content Accessibility Guidelines [WCAG] 1.0).



# Technical Guidelines (cont.)

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6. Content conforms to National Instructional Materials Accessibility Standard (NIMAS).
7. Two dimensional graphics conform to Scalable Vector Graphics (SVG) format 1.1 minimum.
8. Rich media are provided in the user's choice of format or the source code is provided to enable the user to convert the media to the format of choice.
9. Rich media are available in low and high bandwidths.



# Technical Guidelines (cont.)

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10. Copyrighted rich media are protected by technology which prevents it from being downloaded, saved or copied by students once it is placed in the course.
11. Multiple authentications are not required for users to access content through a secured Web site (Learning Management System, Content Management System, etc.)
12. Coding will not disable LMS features when the content is used.



# Technical Guidelines (cont.)

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13. Content does not contain code which limits full functionality in another delivery environment, such as cell phones and PDAs.
14. Content must be capable of being reorganized and replicated (within the legal terms of use) and remain fully functional.
15. Content components can be replicated or updated in their entirety or in their individual parts (e.g., test banks, topics/modules, discussions, etc.).
16. Content adopts a file naming convention which is unique, descriptive, meaningful and consistently applied as it relates to the organization of the content.



# Technical Guidelines (cont.)

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17. Test/question item banks are organized by the learning outcomes they are intended to assess.
18. Content maintains the privacy of users, security of information about the user and security of users' content.
19. Publisher shall provide the ability for the institution to archive user interactions, usage logs, record of work completed and performance.
20. At a minimum, technical support is provided for system technology administrators during standard business hours for the duration of the license.



# Goals

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- To identify minimum technical standards
- Although not addressing quality directly, when content is consistent, users can select on quality rather than accessibility, interoperability, of compatibility with a particular LMS.



# Contact Information

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- Technical Guidelines for Digital Learning Content: <http://www.sreb.org/programs/EdTech/SCORE/guidelines/pub.asp>
- Digital Learning Content Toolbox: <http://www.evalutech.sreb.org/digitalcontent/index.asp>
- Presentation online: <http://alt.usg.edu/publications/>
- Liz Johnson: [Liz.Johnson@usg.edu](mailto:Liz.Johnson@usg.edu)