

CHAPTER 8 Targeting the K-12 Audience

The creative uses students and teachers can make of the wide variety of digitized resources available from North Carolina's cultural institutions is boundless. Many students have little or no opportunity to leave their immediate geographic area to visit North Carolina's libraries, museums, and various cultural institutions. Sharing digitized collections with K-12 students and their teachers can make a significant contribution to the ultimate goal of life-long learning.

Digitized special collections of North Carolina's libraries, archives, museums, historic sites, and other cultural institutions can offer students and teachers in the K-12 community a wealth of resources for research activities to enhance learning. Typically, students and teachers will investigate sites, looking for material relevant to a research question, a lesson plan, or an instructional unit. As part of the research process, students will gather information from one or more Web sites, analyze and synthesize their findings, and incorporate them along with multimedia elements into an authoring tool to share with others.

Cultural institutions that choose to provide digitized resources for this audience will need to consider a variety of issues in addition to the *North Carolina Standard Course of Study*, including developmental needs, searching and navigation capability, and infrastructure limitations. The following guidelines may be helpful when deciding whether to serve this audience and how to provide the most effective access to digitized resources.

Teacher Resources

The addition of teacher resources related to a Web site's content can promote the most effective use of information provided. Teacher materials could include suggested activities, lesson plans, and examples of student projects. LEARN NC provides a rich resource for lesson plans, available at: <http://www.learnnc.org/lessons/>. Cultural institutions may want to contract with teachers or partner with local colleges of education in order to create lesson plans and relevant instructional activities to accompany digitized resources and submit those plans to the LEARN NC portal.

If a cultural institution offers professional development opportunities such as workshops or online courses, it would be useful to include this information in a teacher resource area as well.

Web Site Design

The developmental needs of students are an important consideration when designing access to digitized resources. The following suggestions reflect the experience and feedback of educators who frequently work with students as they use Internet-based resources.

Orientation/Introduction

It is helpful for students and teachers to view a brief introduction to the purpose and organization of the Web site as well as a general description of the types of resources (e.g., print documents, oral histories, artifacts, local photographs) that can be found throughout the site. Introductory text also might include a timeline or information on the historical period covered by the resources. This type of information can help students and teachers to determine quickly if the site is relevant and how to get started using it. The Introduction should be obvious when entering the home page or easily accessible from a link to a secondary page.

Locating Information on the Site

Students and teachers need multiple options for finding relevant information. Search options could include menus and an index with hyperlinked main topics and sub-topics. (A word of caution: avoid “fly-out” menus that have very small print and that often do not stay open). Simple keyword searching features such as Google’s free search engine also can be added to a site. Terms within text that might be unfamiliar to students can be highlighted and hyperlinked to short definitions.

Multimedia

Multimedia such as music, audio, video, VR, and graphic files is an important element of a Web site to engage students, thereby enhancing their learning. These files should be provided in several formats to meet the needs of various software applications. For example, students often use *HyperStudio* and *Microsoft PowerPoint* for multimedia authoring. AVI or WAV sound files as well as GIF or JPEG graphic files work best in these programs. *RealPlayer* and *QuickTime* are commonly used for viewing video files. Images should appear thumbnail size whenever possible (with an option for enlarged view) to minimize load time.

Technical Issues

Equipment and browser capability varies considerably among North Carolina’s schools. It is best to assume that access will be with older versions of Internet browsers. In addition, many schools still use the Macintosh platform, creating challenges when designing Web pages that will display properly on this platform as well as Internet Explorer. Compromises in design frequently have to be made, such as in the brightness of colors used, in order to have the Web pages display effectively on both platforms.

In addition, schools must address the needs of diverse users, including students with physical disabilities. Web design for the K-12 environment should, as much as possible, follow *Section 508 Standards of the Rehabilitation Act* as amended in 1998.

Curriculum Alignment

North Carolina Cultural resources and primary sources have particular relevance to the Social Studies Curriculum due to the emphasis on North Carolina’s history and geography in grades four and eight, as well as to information literacy skills in the Information Skills Curriculum. The following is a brief overview of the Information Skills and Social Studies curricula. It is important to note that cultural resources and primary sources also can have relevance to other curricular areas such as the Arts and Sciences. Complete information

regarding the *North Carolina Standard Course of Study* is available at the Web site of the North Carolina Department of Public Instruction, available at:
<http://www.ncpublicschools.org/curriculum>.

The *Information Skills Curriculum* follows an integrated and holistic approach whereby:

Classroom instruction in all subject areas requires students to access, analyze, evaluate, organize, and use information from a wide variety of resources (print, non-print, electronic). Students must be able to synthesize information and construct meaning to solve problems, make decisions, and communicate ideas and information in a variety of formats (print, graphical, audio, video, multimedia, web-based) to meet academic and personal needs, **practicing and refining these skills at all grade levels enables students to be effective learners and to make the connection between classroom learning and resources (print, non-print, and electronic), whether accessed in the classroom, library media center, or community.** This practice is known in educational literature as resource-based learning.¹

The goals and objectives of *The North Carolina Social Studies Standard Course of Study* closely parallel the national social studies curriculum standards. In 1992, the Board of Directors of the National Council for the Social Studies (NCSS), the primary membership organization for social studies educators, adopted the following definition: *Social studies are the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and the natural sciences.*

The following strands of *The North Carolina Social Studies Standard Course of Study* provide a framework for studying and analyzing social studies at each grade:

Individual Identity and Development - *In each society, individual identity is shaped by one's culture, by groups, and by institutions.*

Cultures and Diversity - *There are similarities as well as differences between and among cultures. Culture helps people to understand themselves as both individuals and as members of a group. As cultural borrowing becomes more prevalent, the differences between cultures become less defined.*

Government and Active Citizenship - *Power structures have historical foundations but continue to evolve. How people create and change structures of power, authority and governance, and the role and the relative importance they assign to the individual citizen varies over time and place. Examining civic ideals and practices across time and in diverse societies enables students to recognize gaps between the practice and the ideals of civic responsibility.*

Historic Perspectives - *Seeking to understand the historical roots of present day cultures enables students to develop a perspective on their own place in time. Knowing what things were like in the past and how they changed and developed over*

¹ C.A. Haycock, *Resource-based learning: a shift in the roles of teacher, learner*. NASSP Bulletin, 75 (535), 1991, pp. 15-22.

time in a variety of societies and cultures provides students with a broader view of their own history.

Geographic Relationships - *Studying places and the people who inhabit them as well as their interactions and mutual impact on each other enables the student to develop a spatial perspective on their place in the world going beyond personal location.*

Economics and Development - *Students recognize that having wants/needs that exceed resources available generates a variety of solutions in different circumstances. How people organize for the production, distribution, and consumption of goods and services varies over time and space.*

Global Connections - *Connections between cultures have existed for centuries, but in modern times they have become increasingly diverse and have had a greater impact on the quality of life in North Carolina, the nation, and the world.*

Technological Influences and Society - *Technological changes over time have had significant impacts on the development of cultures. As technology has spread over place and time, it has influenced and been influenced by people and their perceptions.*

While there is the potential for students at a variety of grade levels to be able to use digitized resources on the NC ECHO Web site, the social studies curriculum in the following grades would have particular relevance to these resources.

Grade 2 - Regional Studies: Local, State, US, and World

Grade 3 - Citizenship: People Who Make a Difference

Grade 4 - North Carolina: Geography and History

Grade 8 - North Carolina: Creation and Development of the State

Grade 10 - Civics and Economics

Grade 11 - United States History

In addition, digitized cultural resources would have relevance for various social studies elective courses, such as African American Studies, American Indian Studies, and Contemporary Issues in North Carolina History.

Criteria

Cultural institutions that are considering the K-12 audience should review the criteria used to evaluate Web sites for the North Carolina schools developed by the Evaluation Services Section of the North Carolina Department of Public Instruction, reproduced below.

Criteria for Evaluating Web Sites
North Carolina Department of Public Instruction
Evaluation Services

Content

Accuracy:

- Error-free information
- Current information
- Updated frequently
- Recent "last" update
- Objective, balanced presentation of information
- Bias-free viewpoints and images
- Correct use of grammar, spelling, and sentence structure
- Primary outlink (link that takes you to additional site) content is relevant, authentic, and appropriate
- Authority
- Expertise/reputation of author/designer
- Contact information for author/designer
- Expertise/reputation of host site

Appropriateness:

- Concepts and vocabulary relevant to students' abilities
- Information relevant to the North Carolina K-12 curriculum
- Interaction compatible with the physical and intellectual maturity of intended audience

Scope:

- Information of sufficient scope to adequately cover the topic for the intended audience
- Logical progression of topics within original site (site being evaluated) and primary outlinks
- Information offered not easily available in other sources

Presentation:

- Site follows good graphic design principles
- Screen displays uncluttered and concise
- Captions, labels, or legends for all visuals
- Legible text and print size appropriate for the intended audience
- Graphics and art functional, not merely decorative
- Information presented through text, motion, still images, and sound
- Information presented in a manner to stimulate imagination and curiosity
- Product advertising not intrusive

Technical Aspects

Navigation:

- Ready access to site; site not overloaded
- Images load within reasonable timeframe
- Intuitive icons, menus, and directional symbols that foster independent use

- Inlinks (links that take you to locations within the original site) that allow easy navigation throughout the site
- Standard multimedia formats
- Logical options for printing/downloading all or selected text and graphics

Copyright

North Carolina public schools and their districts have copyright guidelines defined in local school board policy, and North Carolina educators are expected to abide by the Fair Use Guidelines of copyright law. Educators who develop instructional presentations for distance education are expected to follow the limits and special conditions for using digital resources as outlined in the TEACH Act that became law in 2002.

The Information and Computer/Technology Skills curricula of the North Carolina Standard Course of Study for K-12 emphasize the awareness of copyright law, adherence to copyright law and guidelines, and respect for the ownership of ideas and information, including the citing of copyrighted resources.

Students in North Carolina schools frequently use the Internet for research, following guidelines outlined in a district-level developed "Acceptable Use Policy" (AUP). An AUP is a mutually agreed upon document that provides guidelines for students and teachers regarding access and ethical use of the Internet. It is generally signed by students and their parents and agreed to by teachers and administrators.

Developers of digitized resources also need to be aware that requirements for Internet safety policies and filtering measures defined by the Children's Internet Protection Act and the Neighborhood Children's Internet Protection Act can impact Web site design and access. In order to use digitized images from sites such as *NC ECHO*, students and educators are expected to determine if they meet *Copyright Guidelines for Fair Use*. For this reason, cultural institutions need to provide information on their Web sites that digitized images may be lawfully used by addressing questions such as:

- Are all the digitized and posted resources cleared with the copyright holder?
- What digitized images are in the public domain?
- How will users know what is in the public domain versus copyright materials?
- Does the agency sponsoring the site have a policy on the use of their digitized images?
- Is an e-mail link available on the site for requesting permission to use copyrighted resources for educational projects?

Note: If images are protected by copyright, students and educators are expected to obtain permission in writing to use the resources. Schools often have a form letter for copyright permission.

Conclusion

The K-12 audience is an important one for the cultural heritage community. These guidelines are meant to help you with creation of resources that are easily integrated into the K-12 community. Students and teachers are creative users of online material, but there are requirements that must be followed and ways to make that use more beneficial.

Further Reading

Crash Course in Copyright: The TEACH Act Finally Becomes Law. University of Texas. 13 November 2002. <http://www.utsystem.edu/ogc/intellectualproperty/teachact.htm>

Internet School Library Media Center: Copyright for Educators
<http://falcon.jmu.edu/~ramseyil/copy.htm>

LEARN NC, <http://www.learnnc.org/>

Rehabilitation Act: Section 508 Standards
<http://www.section508.gov/index.cfm?FuseAction=Content&ID=12>