## RESEARCH COMMITTEE ISSUES BRIEF: Access and Equity in Online Classes and Virtual Schools



Written by

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A parent asks why her visually impaired student, who uses a screen reader, was told by her school guidance counselor she couldn't take an online Advanced Placement History course that isn't otherwise available in the student's school. The parent was told the course used a number of videos to present information and her student wouldn't be able to view them. The parent asks why your program is discriminating against her daughter.

#### Overview

Online education is one of the fastest growing phenomena in K-12 education in the United States today. It's a train for which every school district is at waiting at the station, if not hopping on board. Over half of the states currently have some form of state-run virtual school, with additional state programs in the planning stage. Additionally, many school districts have created virtual education programs or schools, or make virtual courses offered by other providers available to students to address perceived needs. Various surveys have reported that at least one third of high school students have had some form of online education experience. (Selzer and Lewis 2005, Allen and Seaman 2006) With the graduation class of 2010, Michigan requires an online learning experience as a prerequisite to high school graduation.

As with many innovations in education, there's the perception that the innovation has a limited audience. These beliefs influence both program design and accessibility, especially since resources are generally limited in the early stages of new programs.

#### Purposes of this Issues Brief

There are a variety of different approaches to providing virtual education and significant program differences. This Issues Brief describes a process all virtual education programs should undertake to help best ensure all students have access to the educational opportunities provided by the program.

The focus of this Issues Brief is to *increase the awareness of the importance* to students, virtual school programs and the field of making online courses accessible to meet your legal obligations. This Issues Brief references civil rights legislation in the United States, but the issues of access and equity are relevant to all online programs. There are a great many levels to the discussion of *how* to make online courses accessible, and this paper will illustrate some of the ways to ensure accessibility.

It is not our intention to make this a how-to; rather our goal is to increase the understanding of the importance of addressing equity and access issues and to make virtual education program leaders aware of the importance of collecting and disaggregating enrollment and completion data by race, national origin, gender, language proficiency, and disability.

# Myth: Online course are only for gifted and accelerated students seeking upper division courses.

There are a variety of assumptions regarding which students are best served by online education. Some have been created because online education is delivered via computer. There's still the belief, in some quarters, that computer usage is best reserved for high achieving students. That belief is further reinforced by the number of Advanced Placement courses offered in virtual education programs. Virtual schools have over a decade of experience providing successful online education to students of all levels, and programs have experienced significant success with special needs students.

Virtual education programs are designed to address a variety of educational needs. Those design decisions and how the programs fit into the range of options available to students impact the level of educational equity and programmatic access the program provides to students.

Many virtual schools fail to consider that they are included in a public school's offering. As such, they have a responsibility to provide equal access to the educational opportunities and restricting access to these opportunities can be problematic, if not illegal.

Every public school receiving federal funding is required to have and publish a non-discrimination policy. Most states also require public schools create their non-discrimination policies and annually publish them to the school community. For the virtual school program that means schools must:

- 1. Advertise the school/district non-discrimination policies.
- 2. Be in compliance with them.

#### Myth: All students have high-speed home internet connections.

Access takes a number of different forms. When most people hear "access" used in relationship to online education, they think about whether students have computers—the digital divide. That is an important issue, and contrary to what many believe, all students don't have home computers with internet connections. Some students who have internet connections only have dial-up connections.

Public schools that operate educational programs available only through students' own computers are not truly accessible. Any virtual education program that operates in a public school has a responsibility to make the program available to students who don't have their own computers, or who don't have the bandwidth to make participation in the online programs reasonable.

#### Myth: Handicapped students aren't able to handle online courses.

There are other access issues of particular concern to students with disabilities. Students with physical handicaps may have problems accessing online content if it's not intentionally designed with them in mind. For example, students with visual handicaps might use screen readers—web browsers

that speak text presented on a webpage—but screen reader programs can't "read" graphics. However, it's possible to add a description (called a tag) into a web page that describes each graphic and then screen readers can "read" the graphic to the reader. The inclusion of text descriptions for graphics is easy and is a best practice good website developers and programmers follow. Course designers must create useful and descriptive tags for all graphics used in an online course.

The use of multimedia materials in online instruction requires specific accommodation to make it more accessible. Audio materials should be accompanied by a text transcript. Video materials should either have a transcript or be captioned to accommodate users with auditory handicaps.

Students with motor control problems may use a device for on-screen navigation other than a traditional mouse, but complicated screen layouts or layouts that require a mouse for navigation can make the use of alternative navigation tools difficult, if not impossible.

A reporter doing a story on your virtual school program asks to talk with students in the program. The reporter notes that all the students identified are white, even though the district enrollment includes a large proportion of Black, Hispanic, and Asian students. The reporter asks for racial enrollment data for your program. You feel, based on the reporter's questions, that the article will focus on the apparent inequity of students participating in your virtual education program. You'd like to respond, but you don't have data other than total enrollments.

The first virtual education programs in the country, Virtual High School, Inc. and Florida Virtual School, have enrolled students with disabilities since their inception. Kentucky Virtual High School, the first state-run program, followed that lead and has also enrolled students with disabilities since its beginning. Students with physical disabilities frequently need to be accommodated to enable them access to online courses. These accommodations become easier when from the outset courses are intentionally designed with handicapped students in mind.

Courses not designed to accommodate students with handicaps cannot be considered accessible. Public schools should pay attention if they have chosen to offer specific content only online (e.g., AP Economics, Law and Society, and Native American History are only available online) and not in their conventional format. In those situations where online courses are the only way particular content is delivered, it is very important to ensure these courses are as accessible as possible. Students with disabilities should not be denied access to specific educational opportunities because the school is unwilling to make reasonable accommodations. Otherwise, the program could be found to be unlawfully discriminating.

An online program's enrollment should reflect the demographic makeup of the total population of students served. Schools need to collect enrollment data for students participating in virtual education programs to ensure that the program does not unintentionally deny access to any particular group of students. Schools can start with the student demographic data that are normally reported to state and federal authorities. Generally that includes race and ethnicity, special needs, first language other than English, and poverty (as indicated by free and reduced lunch).

Ask yourself these five questions. If you can answer yes to all five, you are in good shape with your data collection. If not, it's time to make changes to the data you collect.

- 1. Can your existing data on student enrollments in K-12 online courses report enrollment disaggregated by race and ethnicity (e.g., Caucasian, African-American, Hispanic, Native American, Pacific Islander, Asian, or other)?
- 2. Can your existing data on student enrollments in K-12 online courses report enrollment disaggregated by poverty (e.g., qualification for free lunch under current USDOE guidelines)?
- 3. Can your existing data on student enrollments in K-12 online courses report enrollment disaggregated by disability (e.g., students having a diagnosed "exceptionality," thereby qualifying the student for an "Individual Education Plan" and educational services sponsored under the Americans with Disabilities Act)?
- 4. Can your existing data on student enrollments in K-12 online courses report enrollment disaggregated by "Limited English Proficiency" (e.g., students diagnosed as English Language Learners under current USDOE guidelines for The Bilingual Education Act 1968 – 2002 or New Title III)?
- 5. If data describing the sub-populations described in items 1-4 is available, based on students currently enrolled in online courses within your program, does the data for each sub-group in your school and district's enrollments and student census compare favorably with that of your online courses?

(Adapted from: Blomeyer & Dawson, 2005)

# Myth: In cyberspace, everyone is treated equally because "everyone looks the same."

The research into cultural gender and ethnic differences in online education conducted when the movement was getting started (Hanson, K 2002) showed gender and ethnic differences in online discussions. Online education benefits from the building of online community and there are a variety of proven methods for doing so. (Rose and Smith, 2007) Students are used to seeing each other and are curious, so it's not surprising to find them asking for photographs of classmates. With the popularity of social networking sites, students have a variety of ways to see images of classmates. A number of virtual education programs allow or encourage students to post photographs while other programs encourage the use of icons instead of actual photographs. Does the lack of student images or the use of icons or photographs change the way students interact with each other? Does it change the instructor's perceptions of individual students? This is an area ripe for additional research.

While there has been little research into cultural, gender, and ethnic differences in virtual school education, the subject of different treatment and behavior in other online situations predominantly

with adults does exist. One study (Shachaf, P., & Horowitz, S 2006) compared librarians' responses to queries in virtual reference services based on ethnicity of names of the requestors. The results indicted marked inequalities in tone and speed of response, as well as quality of service. This research has serious implications for interactions in online learning situations. It's dangerous to assume that online interactions are free of discrimination.

Without the collection and analysis of disaggregated student data, there is no way to judge if students are treated equally or if students are differentially impacted. In this era of data-driven decision-making, it's vital that virtual education programs use their student data to make program improvements.

Student demographic data can and should be used to look at a variety of program issues including retention, participation, and grades.

#### Myth: We know the profile of a successful online student and can use that to ensure all online students will be successful by allowing only students who fit that profile to enroll in online courses.

In the recent past, a limited amount of published educational research has examined the contributions of traits such as locus of control and cognitive style, with the notion of developing tests or "screening instruments" that can help predict online learning success. Roblyer and Marshall's study (2002–2003) hypothesized that online success was due to a combination of the factors that had been found in previous studies, at least some of which could be modified with instruction and counseling.

Any instrument or predictive "profile" used with the intent of providing additional support to academically "at risk" students has the potential to also be used as a screening instrument to intentionally exclude students with a "low probability" of online success. This potential abuse of predictive instruments to, in effect, selectively exclude potential applicants from admission to online schools and online programs presents serious legal risks.

In on-ground educational situations, the use of entrance examinations is carefully scrutinized for differential impact (a result where students of a particular race, color, national origin, sex, or disability are screened out). It is on the responsibility of all educational programs to prove the necessity and validity of their screening process, especially if there is a differential impact on specific protected groups of students.

Additionally, the federal legislation enabling creation and funding of charter schools is written to be intentionally "inclusive" and makes no provision for permitting selective admission of students based on prior academic success or any other characteristics. Under federally defined "inclusive admissions" policies governing the creation and funding of charter school programs, using an exclusionary or selective admissions criteria based on an applicants "success prediction" could provide grounds for revocation of individual schools' charters. (ESEA/NCLB, Part B, Public Charter Schools, Section 5203.b.l.i & ii. http://www.ed.gov/policy/elsec/leg/esea02/pg62.html)

Federal civil rights legislation doesn't address curriculum issues, which is clearly identified as a state issue. Some states have legislation or policy that specifically addresses issues of balance in

representation of both sexes, and includes racial and ethnic minorities. Be sure to check with your state in regard to this issue.

Title IX of the Education Amendments of 1972 has been used to address the disproportional withdrawal of female students from certain courses. Title IX has also been used to address the issue of female students being made to feel less successful. These issues might be identified as sexual harassment in certain situations, and sexual harassment has been covered by case law as a Title IX issue.

Cyberbullying has been identified as a specific problem in the online environment and some states have identified cyberbullying as a crime. Some student initiation rites can be classified as cyberbullying and also classified as harassment. While not yet identified as a major problem in virtual education programs, it needs to be monitored, because a race, national origin, disability, or gender component of a cyberbullying incident could turn it into a civil rights issue.

## What Does Online Equity Mean?

Online equity must address the basic access issues—all students given access to online content. Virtual schools have, in large part, been designed to make content available to students who wouldn't otherwise be able to access that content. Virtual programs that focus on Advanced Placement courses are doing so because the program sponsors and creators recognize that not all segments of the student population have the same advantage when it comes to being accepted into competitive colleges.

When we refer to online equity, we're not talking about the digital divide, though there are elements of the digital divide

You've been examining the disaggregated class completion data from your courses and notice that one course tends to lose most of the female students before the completion of the course. Upon further investigation, you discover this advanced science class has a lower proportion of female students initially enrolling in the course. When you interview a sampling of students who withdraw early, you learn the students don't find any role models in the instructional materials and are made to feel less successful than the males in the course.

discussion in this view of online equity. The digital divide discussion initially focused on which students had access to computers in school, characterizing them as the haves and have-nots. As the numbers of computers became less an issue, the discussion shifted to the issue of access to the internet. The digital divide has now been refined to look at high-speed access to the internet.

Public school programs that take the position students must have their own appropriate technology to access educational programs are creating problems for themselves. It's incumbent on public schools are obligated to ensure that all students can take advantage of and benefit from the particular services and programs they provide.

Equity and equality have different legal definitions. If a school doesn't provide computer or internet access to any students in their online program, that treatment is considered equal. However,

when only those students with personal computers and internet access at home are able to take advantage of the benefits and opportunities of the online program, the program is not considered equitable. It is also potential a legal issue if any of those students without computers and internet connectivity are protected by civil rights legislation.

Equitable access also means students with disabilities can't be denied access to online education because of their disability. It puts a burden on the program designers to ensure students with disabilities can easily access the online course content. Public schools have an obligation to provide access to the full benefit of education for all students. The civil rights and equity laws and policies prohibit students from being denied access to that education on the basis of economic status, race, sex, national origin, limited English language ability, or disability. There's an obligation to ensure that the program isn't having a negative differential impact on students because of the student's status.

The interpretation of these laws can be quite complicated. Use these two simple strategies to help analyze your situation and help your program avoid problems:

**Change the issue.** What happens if an online teacher wants to restrict all special needs students from their course. The teacher doesn't understand why you are saying this can't happen. If someone is alleging one type of discrimination, examine the situation as if it were a different issue (e.g., gender, race, disability, or language) instead. Personal experience and bias can sometimes make it difficult to judge a particular problem. Changing the situation from one civil rights category to other can provide a different perspective. Ask the teacher if they would see a problem with restricting all African American students from taking the course. There's a good chance that, if you change the nature of the discrimination from one category to another and it feels wrong, it probably is.

**Prepare to defend your position on national television.** Are you caught between two difficult options when making a determination or looking for corrective action? Assume that as soon as you make your decision, you will be interviewed on national television (a very possible reality). Which position do you want to be defending under national and possibly international scrutiny? It's possible some civil rights issues have no clearly right answer, but the moral high ground is probably your best choice.

#### Enforcement

The United States Department of Education Office for Civil Rights (OCR) is the primary enforcement agency for federal civil rights legislation in education settings. The US Justice Department has responsibility for enforcement of one piece of federal legislation, but usually works with OCR on that legislation in education programs. OCR has the authority to conduct compliance reviews of any program under its jurisdiction, but in the past six years, there have seldom been random reviews.

OCR has a statutory responsibility to investigate any complaints filed within the statutory period from the time of an alleged infraction, and complaints must be filed within 180 days of the alleged incident. When OCR investigates a complaint, they have the option of investigating only the complaint or to broaden their investigation to a full review of the organization's compliance with all civil rights issues. Full reviews are rarely conducted, but when they are it's likely because of external pressure exerted on OCR or the initial complaint identifies severe violations.

Individuals have the private right of enforcement for all civil rights legislation. Today, that's the most likely cause of a civil rights suit alleging violation of federal civil rights laws. Private right of enforcement normally happens when the aggrieved party is not given a hearing at the local level or the discrimination continues over a long period. The aggrieved party is generally hurt and angry. Even if the virtual program wins a legal action, the program will take a public relations hit that may be difficult to recover from, and it will take a financial hit in the form of legal fees. The best way to reduce the likelihood of a complaint being lodged with an enforcement agency is to establish a complaint procedure for your virtual education program.

State education agencies have federal civil rights compliance monitoring responsibilities in specific programs, especially in vocational education programs. State education agencies conduct compliance monitoring and complaint investigation of state civil rights legislation. In other states, it's left to the arm of the state attorney general's office managing civil rights enforcement.

## **Action Strategies**

#### Meet Your Legal Responsibilities

Even if your program is not receiving a dollar of federal funding, you are required to abide by several civil rights laws and you should assume your program needs to be in compliance with all the applicable civil rights legislation. Does your program have a non-discrimination policy? Unless you're a private program without *any* connections to state or federal funds, your program needs to have a non-discrimination policy. Those with a non-discrimination policy must publicize it annually.

If your school is a part of a school or institution that receives any federal education funds, either directly or on a flow-through basis, your program is required to be in compliance with all the federal civil rights laws. (See the listing in Appendix A.) As a school, there will probably also be state civil rights legislation and/or a policy that apply to the virtual education program. It's best to assume you're responsible for compliance with all civil rights legislation than to be named in a legal suit later. Ignorance of the law is never an acceptable defense in a civil rights lawsuit.

Stand-alone school programs (e.g., virtual charter schools), or any program that would provide all of a student's education and receive federal education funding, have specific responsibilities. Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973 have a requirement that the local institution appoint a coordinator responsible for each particular piece of legislation.

These coordinators have three major responsibilities as defined by case law and the applicable regulations.

- 1. **Public Notification.** Ensure the community is aware of the organization's required nondiscrimination policy and the complaint process for any employee or student who feels they have been subject to unlawfully discrimination.
- 2. Handle complaints. The regulations don't describe an acceptable complaint procedure, but case law and experience have helped identify the ideal elements of a complaint procedure. If you don't have a complaint process in place now, you should begin developing one immediately. The coordinator normally plays an active role in the process—sometimes early in the process, sometimes as one of the final decision-makers. It often depends on the formal role that person has in the organization.
- 3. **Monitor compliance.** The coordinator should be the person in the organization with the best understanding of the legislation. They are responsible for assisting the organization in becoming compliant with the legislation preventing the organization from getting into trouble as a result of violating the law.

#### Start Gathering Data at the Local Level Voluntarily

Don't wait to be "asked" or hit with a reporting mandate because of state or federally perceived "problems." The best defense is having an answer to those "five questions" listed on page X before anyone asks them.

#### Develop Targeted Recruitment Strategies

If enrollments by traditionally disadvantaged groups in your online learning program are substantially below census norms for your program's catchment area, use the knowledge gained by voluntary local data collection to develop targeted recruitment strategies.

#### Develop Design/Course Selection Standards That Address Access

Courses need to be made accessible for students with disabilities and ideally should apply Universal Design for Learning principals to benefit all learners. (Universal Design for Learning (UDL) is a framework for designing curricula that enable all individuals to gain knowledge, skills, and enthusiasm for learning. UDL provides rich supports for learning and reduces barriers to the curriculum while maintaining high achievement standards for all. http://cast.org) The program should specifically address accessibility in course design/selection standards, and ensure that those standards are applied appropriately.

- Video resources should be captioned (see MAGpie under Appendix B: Resources) or have a transcript available.
- Text transcripts should be available for audio resources.
- Alternative presentations need to be identified for graphic presentations of instructional content.
- The use of graphics as eye-candy—graphics to make a page pretty—should be minimized.

- Course and web page navigation needs to be designed to facilitate alternative navigation tools.
- Web resources outside the class environment need to be evaluated specifically for accessibility.

#### Develop a Special Needs Policy

Every online program should have a Special Needs Policy. Included in the policy are the specific responsibilities of the online program and the specific responsibilities of the sending school (if there is one).

Online education program representation at IEP (individual education plan) meetings of potential students, communication of the IEP to the virtual teacher when appropriate, suggestions for modification of virtual classes, or support for SPED students in virtual education programs should all be included in the Special Needs Policy. If the virtual education program is the full-time educational provider, then the Special Needs Policy needs to be inclusive of the same issues as any other school.

The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004 brought changes to the regulations and interpretation. One significant change for certain virtual school programs is when a child transfers between school districts, services comparable to those in the IEP must be provided by the new district. Services must continue until the previous IEP is adopted or anew IEP is developed.

Denying a special needs student access to a virtual education program solely on the basis of their special needs status should not be undertaken without a great deal of thought. On the surface, it will appear to be discrimination on the basis of handicap.

#### Recruit and Hire Qualified Minority Faculty Members

Serving the educational needs of traditionally disadvantaged groups is accomplished more effectively by recruiting faculty members with experience teaching those same groups. Cultural experience and cultural representation is part of teaching and learning, so diversity in both instruction and the course design benefits everyone.

#### Increase Student Services and Support

Students from traditionally disadvantaged groups are well served by maintaining high levels of technology and human support services. Offering course delivery online doesn't mean student services and support should be eliminated. Students still have all the same needs and typical student problems ranging from emotional to instructional. A decade of experience with online learning has shown that it can be more personal than on-ground instruction and, as a result, the online teacher may be better acquainted and familiar with their students than are on-ground instructors. That means student services and support need to be considered in ways to deal with the distance, but not to do away with them.

#### Apply for Grants to Develop New Programs

There are federal and state programs to "incentivize" innovative educational programs serving underserved populations. Explore opportunities for bringing in external funding for program development.

### Summary

Equity and access are important issues in education. The virtual school community has an obligation to ensure that their programs are accessible and the educational opportunities are equitable. Virtual education programs need to pay attention to these issues to be sure to have the greatest benefit to the largest number of students. From there begins the same legal obligation that all public education programs have.

Virtual education programs can become proactive on equity and access issues by:

- Collecting and analyzing student demographic data, then use that data to make program modifications where needed
- Developing policies and procedures that require and ensure all courses and educational materials be broadly accessible
- Developing special needs policies that explain the program responsibilities for service to special needs students
- Creating and publicizing a non-discrimination policy
- Appointing, when necessary, Title IX and Section 504 Coordinators

By implementing these best practices, virtual education programs can be assured of helping the greatest number of students obtain a high quality education.

# Appendix: Federal and State Mandates for Equal Educational Opportunity and Access

#### Equal Educational Opportunity Act

The EEOA prohibits specific discriminatory conduct, including segregating students on the basis of race, color or national origin, and discrimination against faculty and staff. Furthermore, the EEOA requires school districts to take action to overcome students' language barriers that impede equal participation in educational programs.

http://www.maec.org/laws/eeo.html

# Title IX, of the Education Amendments of 1972, as amended by Pub. L. $93{-}568$

Title IX prohibits discrimination on the basis of sex against students and employees of education programs and activities receiving federal funds. The Title IX regulation prohibits sex discrimination in such areas as:

- Admissions to schools
- Student access to courses and programs
- Counseling and guidance tests, materials, and practices
- Physical education and athletics
- Vocational education programs
- Student rules and policies
- Treatment of married and/or pregnant students
- Financial assistance
- Extracurricular activities
- Employment

http://www.ed.gov/policy/rights/reg/ocr/edlite-34cfr106.html

#### Title VI, of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 protects people from discrimination based on race, color, or national origin in programs or activities that receive federal financial assistance. Agencies and institutions that receive such funds include state and local education agencies and their sub-recipients, vocational rehabilitation agencies, numerous colleges and universities, and other institutions such as libraries and museums.

Discrimination against national origin minorities on the basis of limited English skills is also prohibited by Title VI case law. (See Lau v Nichols.)

http://www.ed.gov/policy/rights/reg/ocr/edlite-34cfr100.html

#### Lau v. Nichols (Lau Decision)

In 1974, the U.S. Supreme Court's decision Lau v. Nichols guaranteed children an opportunity to a "meaningful education" regardless of their language background. The decision was based on violations of national origin provision of Title VI of the Civil Rights Act of 1964. School districts are required to provide Limited-English-proficient (LEP) students assistance. They can no longer be left to sink or swim, offered no help in understanding their lessons, and shunted onto dead-end tracks for slow learners. Henceforth, the schools would have to assume responsibility for ensuring that LEP students receive the same opportunities as fluent English students.

The Lau decision did not prescribe a pedagogical means to this end; "affirmative steps" might involve bilingual instruction. But the mandate was clear: language-minority students must be ensured access to the same curriculum provided to their English-speaking peers.

#### Americans with Disabilities Act (PL 94-142)

#### Americans with Disabilities Act (ADA) as amended

ADA prohibits discrimination on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation or public services. Public and private schools are covered by this Act.

http://www.ada.gov/pubs/ada.htm

#### Individuals with Disabilities Education Act 2004 (PL 108-446)

The Individuals with Disabilities Education Act (IDEA) is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services to eligible infants, toddlers, children, and youth with disabilities.

http://idea.ed.gov/

#### Section 504 of the Rehabilitation Act of 1973

Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of handicap in the admission of treatment of students, and in most employment practices. Intuitions, agencies, or employers receiving federal funds are covered. Schools and education programs must be organized in such a way as to allow handicapped student to participate with other students in schools, classes, or activities from which they can benefit.

http://www.ed.gov/about/offices/list/ocr/504faq.html

#### Resources

#### Legal Resources

Information on Public Law 94-142 now called IDEA http://www.scn.org/~bk269/94-142.html

Council of Educators for Students with Disabilities, Inc Section 504 overview. http://www.504idea.org/504overview.html

US Department of Justice's Americans with Disabilities Act information page http://www.usdoj.gov/crt/ada/adahom1.htm

US Department of Education's Nondiscrimination On The Basis Of Disability In State And Local Government Services http://www.ed.gov/policy/rights/reg/ocr/edlite-28cfr35.html

The Federal Government's website on section 508 and the 508 standards http://www.section508.gov/

http://www.section508.gov/index.cfm?FuseAction=Content&ID=12

Department of Education Charter School Legislation http://www.ed.gov/policy/elsec/leg/esea02/pg62.html

#### Accessibility

Definition of web accessibility and a good set of resources http://en.wikipedia.org/wiki/Web\_accessibility

White Papers on making media and web sites accessible using Adobe products http://www.adobe.com/macromedia/accessibility/whitepapers/

Macromedia Accessibility Kit http://www.macromedia.com/accessibility

Web accessibility and universal design information from UCLA http://www.dcp.ucla.edu/resources/accessibility.htm

The National Center for Accessible Media http://ncam.wgbh.org/

"Accessible Digital Media" Guidelines from NCAM http://ncam.wgbh.org/publications/adm

MAGpie is a tool for creating closed captions and audio (video) descriptions. http://ncam.wgbh.org/webaccess/magpie/

NIMAS info at CAST http://nimas.cast.org

Microsoft Windows guidelines http://www.microsoft.com/enable IMS Accessibility Specs and Guidelines for Distance Learning http://www.imsglobal.org/accessibility

#### Web Accessibility Resources

An article by Jim Thatcher about what not to do to make a website more accessible http://jimthatcher.com/whatnot.htm

Web Accessibility In Mind (WebAIM) http://www.webaim.org/

Web Accessibility Initiative http://www.w3.org/wai

Illinois Accessible Web Publishing Wizard for Microsoft Office http://accessiblewizards.uiuc.edu/ http://www.access-board.gov/508.htm

Universal Design for Learning http://www.cast.org/

#### General Accessibility Resources

Java guidelines http://www-3.ibm.com/able/guidelines/java/snsjavag.html

PDF accessibility info http://access.adobe.com/

Apple accessibility info http://www.apple.com/accessibility

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