The Technology Challenge: Universal Inclusion

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High Tech Center Training Unit (HTCTU)

- Grant Program
  - Funded by the California Community Colleges Chancellor’s Office
  - Located at De Anza College in Cupertino, California
- Free training and information on using technology to assist students with disabilities
- www.htctu.net

Teaching for All

- Text-based documents convert to MP3 using free text-to-speech tools
- Captioned videos help English language learners and anyone learning new vocabulary
- Alt text and tool tips provide quick overviews
- Web pages designed to standards are easier to read and navigate
Why Consider Accessibility?

- Better pedagogy
  - Universal design and acknowledging learning differences benefit all students
- Campus diversity
  - Students with disabilities are part of a rich, multicultural environment
- Equal rights
  - Requiring use of inaccessible technology is discrimination

Emerging Technologies and the Issue of Access

It's new and cool…but can all students use it?

Concerns about Technology

- Office for Civil Rights…
  - "It is unacceptable for universities to use emerging technology without insisting that this technology be accessible to all students."
The “Kindle Letter”

- June 29, 2010, Dear Colleague Letter (DCL)
- Issued by the Office for Civil Rights (OCR)
  - Cosponsored by DOJ and Dept of Ed
- Expresses concern over campuses adopting inaccessible technology

The Kindle Complaint

- Kindle DX was part of a pilot study
  - Arizona State University and Amazon.com
- Was required device in classes piloting it
- ASU’s intention was to test the device with the hope of adopting it campuswide
  - Device was to be issued to students with all textbooks

Not Equal

- Digital does not mean accessible!
  - Most people assume that anything on an e-device is accessible…’tain’t so!
- Just because something is digital does not mean that it is accessible to all!
Three Parts of Accessibility

- Hardware must be accessible
  - Controls, touch screen, …
- Software must be accessible
  - OS and apps, …
- Content must be accessible
  - Web pages
  - Videos
  - Documents
  - Podcasts

Potential Areas of Concern

- Learning management systems
- Distance ed courses
- Software in campus labs
- Online books
- OER materials

LMS Example

- Access in the LMS has two parts
  - Is the platform accessible?
  - Is the material loaded into the platform accessible?
- Both the LMS shell and the learning objects loaded into it must be accessible
  - Documents, videos, audio Podcasts, etc.
- Chat is notoriously inaccessible
  - Consider supplementing with office hours using VOIP
Is it accessible?

- Documents
  - Scanned documents are not accessible
- Videos
  - Uncaptioned videos are not accessible (a transcript is not sufficient)
- Audio-only podcast
  - Providing a transcript makes it accessible

Access and Academic Freedom

Not the same as “I don’t want to”

Content vs. Container

- Academic freedom is about the content.
- Section 508 is about the container.
- We are not telling instructors what to teach (the content).
- Conforming to Section 508 simply allows equal access to the content.
Legal Context

How can Sections 504 and 508 help?

Laws for Equal Access

- ADA (Americans with Disabilities Act)
  - Title II (public colleges/universities)
  - Title III (private colleges/universities)
- Rehabilitation Act
  - Section 504
  - Section 508
- State laws

ADA & Section 504

- Accommodation model
  - i.e., if it doesn’t work for a student fix it for that student
- Auxiliary aids and services are provided to allow full participation by disabled student
- Both laws very similar in this area
Section 508

- Part of Rehabilitation Act of 1973, as amended in 1998
- Section 508 standards added in 2001
- As written it applies only to the federal government

California State Law

- SB 105
  - Applied standards of Section 508 to California
  - Passed September 29, 2002
  - Effective January 1, 2003
  - Became part of Govt. Code 11135
  - CCCs accepted this as applying to them

Cal. Gov. Code §11135(d)(2)

- “In order to improve accessibility of existing technology, and therefore increase the successful employment of individuals with disabilities, particularly blind and visually impaired and deaf and hard-of-hearing persons, state governmental entities, in developing, procuring, maintaining, or using electronic or information technology, either indirectly or through the use of state funds by other entities, shall comply with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended [29 U.S.C. Sec. 794d], and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations.”
Section 504 vs. Section 508

One Act (Rehabilitation Act of 1973, as Amended) Two Laws

Rehabilitation Act of 1973
- Section 504 is about accommodation.
  - Making it work for individuals
  - Disability service offices created to serve students' needs.
- Section 508 is about access.
  - Create accessible software, Web sites, videos, and documents.
  - Purchase accessible products.
  - Campuswide responsibility

A Campus Analogy
- Section 504
  - Deaf student requests that videos for her class be captioned
- Section 508
  - New videos must be captioned before being shown in the classroom or used online for the first time
United We Stand

☐ Access and accommodation work together
  ■ It's a continuum
☐ Not fully accessible? Accommodate.

☐ But beware…
  ■ Some technology cannot be accommodated!

Access vs. Accommodation

Working Together

☐ The campus buys accessible products/creates accessible media
☐ Individual accommodations are made as needed
☐ Together they fully meet individual's needs
☐ AND an accessible infrastructure will make providing accommodations far less difficult and expensive!
One Example

- Provide free AT in all campus labs
  - Balabolka (document access, TTS)
  - NVDA (free screen reader)

- Provide more sophisticated solutions upon request
  - Install JAWS as needed/when requested

Risk Management

- The more long-lasting and broadly available, the more things need to be accessible

- One-use materials or very limited availability, the more can rely on accommodation

Example

- PDFs for a DE class
  - Text-based
    - Recommend including alt text
    - Note on syllabus where to go if additional accommodation is required
    - Add tags and reading order upon request

- PDFs available to the general public/online forms
  - Greater level of access
How will you accommodate?

☐ Can still use materials that are not fully accessible, as long as you can accommodate individual needs in an **equally effective** manner

☐ Make accommodation planning part of the design strategy and buying decisions!

And Remember

☐ Do not require technology (software or hardware) that cannot be accommodated.
  - The lesson of the “Kindle Letter”

☐ In other words, if it is impossible to make the technology equally as effective for *all* students, do not require it of all students!

Section 508 Can Help with Access

Section 508 of the Rehabilitation Act of 1973, as amended in 1998
The 508 Philosophy

- Section 508 is about creating an open door
- Section 508 focused on using the purchasing power of the government to induce vendors to create accessible products
- The overall goal of Section 508 is a more accessible society

Standards Apply

- Section 508 standards apply to the governmental entity
  - As purchaser
  - As creator
- Standards are not enforceable on the vendors!
- Compliance is up to the campus
  - And is enforced by user complaint

State vs. Federal Law

- California state law actually does put some responsibility for conforming to the standards on the vendor.
  - But only when you include accessibility in the contract
§11135(d)(3) states:

- "Any entity that contracts with a state or local entity subject to this section for the provision of electronic or information technology or for the provision of related services shall agree to respond to, and resolve any complaint regarding accessibility of its products or services that is brought to the attention of the entity."

Section 508 in Action

- Make Web sites accessible
  - Follow the 508 or WCAG Standards
- Make software created by institution accessible
- Make videos accessible
- Purchase accessible Electronic & Information Technology (E&IT)
  - ICT: Information & Communication Tech

Section 508 Refresh

- Refresh not yet adopted
- Revises Web standards to conform with WCAG (international Web standards)
- Changes standards somewhat to keep pace with technology
- Adds document standards
- Buying standards not affected
Web Design

Design to Standards

- The Web standards are prescriptive
- Follow all the standards

- Nice checklist
  - www.webaim.org/standards/508/checklist

- Great resources
  - www.washington.edu/doit/Resources/web-design.html

Checking Accessibility

- HTCTU licenses a checker that is FREE to CCC campuses
  - HiSoftware Compliance Sheriff

- Please contact Jayme Johnson for more information:
  - jjohnson@htctu.net
  - 408-996-6044
Instructional Materials Online

- All online instructional materials need to be accessible
  - PDFs
  - PowerPoint presentations
  - Podcasts
  - Videos
- Build accessibility before putting the material online!

Three Simple Steps in Word

- Use templates and styles
- Add alt text
  - Picture descriptions
- Mark the header row in tables
- Then make it into a PDF

Accessible PDFs

- Accessible PDFs are text-based
- A PDF based on a well-crafted Word document where styles are used probably does not need to be tagged
- Include verbiage on campus sites directing anyone who needs greater accommodation to see your alternate media specialist
Section 508 on Videos

- (c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.

Interpretation

- Videos must be captioned before they are used for the first time
- Uncaptioned videos may be purchased and someone (ordering department?) pays to have them captioned
- Under 508, captioning required whether or not deaf students will be in the class
How do we do this?

- Purchase captioned videos when possible
- OR
- Include cost of captioning in budget when purchasing uncaptioned videos
  - Purchasing department usually pays
  - Check with DSPS for vendors

DECT Grant

- Distance Education Captioning and Transciption grant
  - www.canyons.edu/Offices/Distance_Learning/Captioning/
- All online or hybrid classes
- Pre-approved vendors mean no money up front! Free to CCC campuses!
- Video and audio-only covered

Purchasing Electronic and Information Technology
Complying with Section 508

- Applies ONLY to electronic and information technology (E&IT)
- Two types of E&IT standards
  - Standards for creating
    - Web pages
    - Web applications
    - Software
  - Standards for purchasing

Where Do We Begin

- Only electronic and information technology (E&IT) is covered by Section 508.
- First determine if the proposed purchase is E&IT.

Categories of E&IT

- Software applications and operating systems
- Web-based information and applications
- Telecommunications products
- Video and multimedia products
- Self-contained, closed products (e.g., many office products, kiosks)
- Desktop and portable computers
Examples of E&IT under 508

- Fax Machines
- Scanners
- Printers
- Copiers
- PDAs
- Computers
- Computer software
- Computer operating systems
- Phones
- Information kiosks
- ATMs
- Multimedia
- Videos
- World Wide Web

Not E&IT under 508

- Microwaves (unless it sends faxes, too)
- Coffee makers
- Heating and ventilation systems
- Thermostats
- Tables, desks, and chairs

The Gray Area

- "Back office" E&IT is exempted
  - Must literally be somewhere that people do not go all the time
  - Applies to equipment that only technicians interact with
Reminder

- Section 508 does not just apply to students
  - Applies to *all* E&IT purchases
- The campus is also required to ensure access for employees

Buying Accessible

- Section 508 purchasing
  - Buy the most accessible product that you can that meets your business and academic needs
  - Compare and contrast models/software etc. and purchase the most accessible one
- When it’s not accessible, plan for accommodation

Purchasing Procedures under Section 508

The Process
Considerations

- Functional requirements drive the procurement, not Section 508.
- First determine your business/academic needs.
- Then consider accessibility under the Section 508 Standards.

How do you determine accessibility?

- Standards for Purchasing: Subpart B
  - Standards are concrete and measurable
  - Basic checklists for compliance
- Voluntary Product Accessibility Template (VPAT)
  - Provided by vendors
  - Compare VPATs to help determine accessibility

The Procurement Process

- Figure out as specifically as possible what you need.
- Do market research.
- Do accessibility research.
  - Section 508 Subpart B standards.
  - Use VPATs and/or a checklist.
  - In some cases, may need to do testing (508 Standards, Subpart C).
- Pick the most accessible product that meets your needs.
Remember Back Office

- All "back office" equipment is exempt by its nature
  - Routers
  - Racks of servers
  - Switches
  - Diagnostic software
  - Telephone switching boxes

Four Exemptions

- Fundamental alteration
  - Product does not do what is required
- Technical infeasibility
  - Not possible to make it accessible
- Commercially unavailable
  - It doesn’t exist
- Undue burden
  - Would have to prove the cost is high enough to cause a fundamental disruption of the organization
  - Burden of proof on defendant

Bottom Line

- Focus on the functional requirements and you won’t have to worry too much about the exemptions
- If no accessible products meet your functional requirements, buy what you need.
  - AND plan on how to accommodate
Summary

- Determine functional requirements
- Determine what products are available
- Pick the most accessible product
- Consider exemptions if necessary

So Whose Job Is 508?

CISOs have a role to play!

Where Does the Buck Stop?

- Someone has to have sign-off power on each E&IT purchase
- Who will be responsible for complying with Section 508 on these purchases?
508 Players

Procurement

General Campus

Disability Services (DSPS) Information Services (IT)

Working Together

- IT, DSPS, and procurement work to support the campus
- IT knows the technology
- DSPS understands accessibility
- Procurement writes the checks

Developing a Model

- It is essential to piggy-back buying accessible on current workflows
- IT, DSPS, and procurement must all have their needs met in process
- Forms must be developed
- All participants must be trained
- Workflow must fit campus culture!
Have a Tech Committee?

- A technology committee can be a natural starting place for considering accessibility
  - Already do market research
  - Already talk to vendors
  - Just add accessibility!

Ideal World

- Accessibility needs to be considered right from the beginning
- "We'll address accessibility later..." means "We're not interested in making it accessible."
- Think accessible first!

OCR + 508 + 504

- Want to buy it?
  - Make sure it's accessible
- Not accessible?
  - Plan how to accommodate it
- Can't accommodate it?
  - Don't require it for student success!
Lots of Resources

We can help!

HTCTU Trainings

- Web accessibility
- PDF accessibility
- PowerPoint accessibility
- Creating accessible forms
- Web captioning
- Section 508 trainings
- At our facility or your CCC campus!
  - www.htctu.net

Project Opportunity

- Campuses using Share Point services for students eligible to apply
- FREE Policy Sheriff software for Share Point accessibility / compliance checking
- See handout for more details
Systemwide Resources

- HTCTU
- DECT Grant
- EduStream
- @One
- CCC Confer

- Coming soon…Sidekick!
  - www.toolsthatspire.net

Reference


- http://www.calstate.edu/Accessibility/web_accessibility/evaluation/index.shtml

Questions? More training?

- Gaeir (rhymes with “fire”) Dietrich
  - gdietrich@htctu.net
  - 408-996-6047
June 29, 2010

Dear College or University President:

We write to express concern on the part of the Department of Justice and the Department of Education that colleges and universities are using electronic book readers that are not accessible to students who are blind or have low vision and to seek your help in ensuring that this emerging technology is used in classroom settings in a manner that is permissible under federal law. A serious problem with some of these devices is that they lack an accessible text-to-speech function. Requiring use of an emerging technology in a classroom environment when the technology is inaccessible to an entire population of individuals with disabilities—individuals with visual disabilities—is discrimination prohibited by the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 (Section 504) unless those individuals are provided accommodations or modifications that permit them to receive all the educational benefits provided by the technology in an equally effective and equally integrated manner.

The Departments of Justice and Education share responsibility for protecting the rights of college and university students with disabilities. The Department of Justice is responsible for enforcement and implementation of title III of the ADA, which covers private colleges and universities, and the Departments of Justice and Education both have enforcement authority under title II of the ADA, which covers public universities. In addition, the Department of Education enforces Section 504 with respect to public and private colleges and universities that receive federal financial assistance from the Department of Education. As discussed below, the general requirements of Section 504 and the ADA reach equipment and technological devices when they are used by public entities or places of public accommodation as part of their programs, services, activities, goods, advantages, privileges, or accommodations.

Under title III, individuals with disabilities, including students with visual impairments, may not be discriminated against in the full and equal enjoyment of all of the goods and services of private colleges and universities; they must receive an equal opportunity to participate in and benefit from these goods and services; and they must not be provided different or separate goods or services unless doing so is necessary to ensure that access to the goods and services is equally as effective as that provided to others. Under title II, qualified individuals with disabilities may not be excluded from participation in or denied the benefits of the services, programs, or activities of, or subjected to discrimination by, public universities and colleges. Both title II and Section 504 prohibit colleges and universities from affording individuals with disabilities with an opportunity to participate in or benefit from college and university aids,

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1 28 C.F.R. § 36.201(a); 28 C.F.R. § 36.202(a); and 28 C.F.R. § 36.202(c) (2009).
2 28 C.F.R. § 35.130(a) (2009).
benefits, and services that is unequal to the opportunity afforded others.\textsuperscript{3} Similarly, individuals with disabilities must be provided with aids, benefits, or services that provide an equal opportunity to achieve the same result or the same level of achievement as others.\textsuperscript{4} A college or university may provide an individual with a disability, or a class of individuals with disabilities, with a different or separate aid, benefit, or service only if doing so is necessary to ensure that the aid, benefit, or service is as effective as that provided to others.\textsuperscript{5}

The Department of Justice recently entered into settlement agreements with colleges and universities that used the Kindle DX, an inaccessible, electronic book reader, in the classroom as part of a pilot study with Amazon.com, Inc. In summary, the universities agreed not to purchase, require, or recommend use of the Kindle DX, or any other dedicated electronic book reader, unless or until the device is fully accessible to individuals who are blind or have low vision, or the universities provide reasonable accommodation or modification so that a student can acquire the same information, engage in the same interactions, and enjoy the same services as sighted students with substantially equivalent ease of use. The texts of these agreements may be viewed on the Department of Justice’s ADA Web site, www.ada.gov. (To find these settlements on www.ada.gov, search for “Kindle.”) Consistent with the relief obtained by the Department of Justice in those matters, the Department of Education has also resolved similar complaints against colleges and universities.

As officials of the agencies charged with enforcement and interpretation of the ADA and Section 504, we ask that you take steps to ensure that your college or university refrains from requiring the use of any electronic book reader, or other similar technology, in a teaching or classroom environment as long as the device remains inaccessible to individuals who are blind or have low vision. It is unacceptable for universities to use emerging technology without insisting that this technology be accessible to all students.

Congress found when enacting the ADA that individuals with disabilities were uniquely disadvantaged in American society in critical areas such as education.\textsuperscript{6} Providing individuals with disabilities full and equal access to educational opportunities is as essential today as it was when the ADA was passed. In a Proclamation for National Disability Employment Awareness Month, President Obama underscored the need to “strengthen and expand the educational opportunities for individuals with disabilities,” noting that, “[i]f we are to build a world free from unnecessary barriers . . . we must ensure that every American receives an education that prepares him or her for future success.” \url{http://www.whitehouse.gov/the-press-office/presidential-proclamation-national-disability-employment-awareness-month} (September 30, 2009) (emphasis added).

\textsuperscript{3} 28 C.F.R. § 35.130(b)(1)(ii) and 34 C.F.R. § 104.4(b)(1)(ii) (2009).
\textsuperscript{4} Cf. 28 C.F.R. § 35.130(b)(1)(iii) and 34 C.F.R. § 104.4(b)(1)(iii) (2009).
\textsuperscript{5} 28 C.F.R. § 35.130(b)(1)(iv) and 34 C.F.R. § 104.4(b)(1)(iv) (2009).
Technology is the hallmark of the future, and technological competency is essential to preparing all students for future success. Emerging technologies are an educational resource that enhances learning for everyone, and perhaps especially for students with disabilities. Technological innovations have opened a virtual world of commerce, information, and education to many individuals with disabilities for whom access to the physical world remains challenging. Ensuring equal access to emerging technology in university and college classrooms is a means to the goal of full integration and equal educational opportunity for this nation’s students with disabilities. With technological advances, procuring electronic book readers that are accessible should be neither costly nor difficult.

We would like to work with you to ensure that America’s technological advances are used for the benefit of all students. The Department of Justice operates a toll-free, technical assistance line to answer questions with regard to the requirements of federal laws protecting the rights of individuals with disabilities. For technical assistance, please call (800) 514-0301 (voice) or (800) 514-0383 (TTY). Specialists are available Monday through Friday from 9:30 AM until 5:30 PM (ET) except for Thursday, when the hours are 12:30 PM until 5:30 PM. These specialists have been trained specifically to address questions regarding accessible electronic book readers. Colleges, universities, and other stakeholders can also contact the Department of Education’s Office for Civil Rights for technical assistance by going to OCR’s Web site at http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm.

We appreciate your consideration of this essential educational issue and look forward to working with you to ensure that our nation’s colleges and universities are fully accessible to individuals with disabilities.

Sincerely,

Thomas E. Perez
Assistant Attorney General
Civil Rights Division
U.S. Department of Justice

Russlynn Ali
Assistant Secretary
for Civil Rights
U.S. Department of Education
Electronic Book Reader Dear Colleague Letter: Questions and Answers about the Law, the Technology, and the Population Affected

What are the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973?

- The Americans with Disabilities Act of 1990 (ADA) is a federal law prohibiting discrimination on the basis of disability. The Department of Justice (DOJ) is responsible for enforcement and implementation of title III of the ADA, which covers private colleges and universities. DOJ and the Department of Education (ED) both have enforcement authority under title II of the ADA, which covers public universities.

- Section 504 of the Rehabilitation Act of 1973 is a federal law prohibiting discrimination on the basis of disability in all programs or activities that receive Federal financial assistance. ED enforces Section 504 with respect to public and private colleges and universities that receive Federal financial assistance from ED.

What are electronic book readers and what are accessible text-to-speech functions?

- Electronic book readers, or e-book readers, are handheld devices that allow users to read digital books and other materials by displaying content on screens (often referred to as “e-ink technology”). Though features vary, e-book readers can hold a digital library of books, provide access to online content like newspapers and magazines, allow the user to highlight passages, look up word definitions, and link to reference materials.

- Some e-book readers have accessible text-to-speech functions that allow users who are blind or have low vision to hear the on-screen content read aloud, navigate device controls, and select menu options.

How many students with disabilities could be affected by inaccessible electronic book readers?

- Postsecondary Education (PSE): According to NCES, as of 2003-2004, about 230,000 PSE students are blind, have low vision, or have learning disabilities. (Such disabilities, which may involve difficulty accessing print information, are often called “print” disabilities).
Weekly Reader Corporation

Elementary and Secondary Education (ESE): In the 2006-2007 school year, NCES estimates 29,000 ESE students had visual impairments, including blindness; about 2.6 million ESE students had a specific learning disability, which likely includes some students with a “print” disability.

What does the Dear Colleague (DCL) do? Why did DOJ and ED issue it?

The DCL expresses the position of DOJ and ED that it is impermissible under federal law for colleges and universities to use electronic book readers in classroom settings that are not accessible to students who are blind or have low vision, unless those students are provided an equally effective accommodation or reasonable modification that allows those students to receive all the educational benefits of the technology.

The DCL highlights recent settlement agreements with several colleges and universities. In summary, the colleges and universities agreed not to purchase, require, or recommend use of the Kindle DX, or any other electronic book reader, unless or until the device is accessible, or unless the colleges and universities provide a reasonable accommodation or modification that is accessible to students who are blind or have low vision.

The DCL encourages colleges and universities to take steps to ensure that they refrain from using electronic book readers, or other similar technology, that is inaccessible to individuals who are blind or have low vision to the extent that a reasonable accommodation or modification for this type of technology does not exist or is not available.

Colleges and universities can obtain technical assistance by contacting the DOJ toll-free telephone line at (800) 514-0301 (voice) or (800) 514-0383 (TTY). Colleges and universities may also seek technical assistance by going to ED’s Office for Civil Rights website at http://wdcrobroelp01.ed.gov/CFAPPS/OCR/contactus.cfm.