

**Kapi'olani Community College
Campus Disability Access to Technology**

Final Draft 12-6-00

Mission Statement

Kapi'olani Community College is firmly committed to meeting the needs of persons with disabilities in all of its educational programs and services. The vision is to create a college environment where all persons have an equal opportunity to fully participate in all aspects of activities on campus. Hence, in the area of disability access to technology, equal access and opportunity for persons with disabilities mean:

- a. Access to all information in the classroom, as well as campus scheduling of courses, the catalog, and other information on the KCC campus web sites; and
- b. Physical access to campus computer work stations in classrooms and labs.

Goal:

By the year 2002, Kapi'olani Community College will complete its first step of barrier free access, by meeting the technology needs of persons with disabilities. This goal will be achieved through the development of policies and procedures and the acquisition of technology through a partnership of the following; Information Media Technology Services (IMTS), Special Student Services Office (SSSO), and college departments.

Core Committee:

Representatives from IMTS and SSSO comprise the Core Committee. This committee will develop the Campus Disability Access to Technology Plan and establish technology guidelines, and work with all campus departments to collaboratively assure compliance with both the letter of the law and the spirit of the institutional commitment for the barrier free access by persons with disabilities.

Campus Disability Access to Technology Partnership Committee:

This committee is established to advise the Core Committee and provide feedback on guidelines and procedures for disability access to technology for the college. It is composed of IMTS and SSSO staff, departmental

chairpersons, and representatives from learning resource centers on campus and interested/involved faculty who use technology as a primary teaching vehicle in their classrooms.

The committee will also establish an annual award for recognition of the person who has contributed the most toward barrier free access.

Campus Disability Access to Technology Plan (CDAT Plan)

In support of this commitment, this CDAT Plan is created containing technology guidelines, monitoring procedures and implementation activities to ensure compliance with:

Section 504 and 508 of the Rehabilitation Act of 1973

All educational institutions receiving federal funds and all equipment purchased by federally funded programs must be accessible to persons with disabilities.

The Americans with Disabilities Act of 1990

Extends the requirements of the Rehabilitation Act of 1973 to the rest of society and requires that a plan of compliance be established by State agencies.

The Telecommunications Act of 1996

Mandates that public colleges and universities provide readily achievable access to computers and electronic information sources for students with disabilities

The Assistive Technology Act of 1998

Established legal criteria for assistive technology devices and services. Further affirms that technology can be used to improve the lives of persons with disabilities.

Technology Guidelines:

The CDAT Plan endorses and supports the UH System-wide Guidelines for Web Accessibility (3-24-00). This document, <http://www.hawaii.edu/access>, (Appendix A) adopted the World Wide Web Consortium's Web Accessibility Initiative which specifies design specifications for web accessibility by persons with disabilities. Priority I criteria for accessibility are mandated and web pages can be checked by using Bobby (<http://www.cast.org/bobby>) as a tool to evaluate accessibility.

Priority II criteria are strongly recommended and can be found on (<http://www.w3.org>). The criteria and guidelines are consistent with good design and are internationally recognized as feasible and appropriate.

A physical and programmatic accessibility list of computer software and hardware (Appendix B) provides information on a basic foundation of support needed to achieve accessibility in computer labs and classrooms.

Monitoring Procedures:

The responsibility of each department and lab manager is to monitor and maintain access in their facility. The Core Committee and the college departments will develop and participate in education and training to support this effort. The Campus Disability Access to Technology Partnership Committee will also serve as a resource to individual departments.

Implementation Activities:

The implementation activities are infused into the objectives that guide each phase of the plan. Appendix C is a list of workshops and activities regarding information and web access to be developed and implemented. Appendix D consists of computer software/hardware and access status of open labs and classrooms on campus.

The college's Faculty Senate approved a resolution affirming and supporting the draft CDAT Plan that was sent to the Provost. The Provost, in turn, has encouraged the committee to complete this document to ensure meeting the first step toward barrier free campus by 2002 (Appendix E).

Objectives:

The following objectives guide the committee in its implementation of the CDAT Plan.

Phase 1: Fall 1999 through Spring 2000

1. A complete campus assessment and review of current facilities and services relating to technology and accessibility by persons with disabilities will be conducted.
2. All workshop and training leaders presently conducting workshops and training activities will receive information from IMTS and SSSO on disability access and be given instructions on the use of Bobby 2.0 for the evaluation of accessibility of web sites.
3. The support services of Island Skill Gathering (ISG) will be secured to assist in identifying access needs for people with disabilities as well as establishing college priorities to address these needs. The findings of ISG will be incorporated into the CDAT Plan by the Core Committee and presented to the partnership committee for feedback and revision.

Phase 2: Summer 2000 through Fall 2000

1. A Training and Education Plan for electronic information access will be developed by the Core Committee to guide the larger partnership committee in its initial phase of addressing barrier free access. It will focus on the access needs of persons with physical and visual disabilities as a starting point.
2. The Physical and Programmatic Accessibility List will be presented to the partnership committee, to ensure that technology related purchases, such as computer hardware and software, support access for persons with disabilities. The Training and Education Plan and the

Computer Software and Hardware Access List will also be presented, to ensure that there is an infusion of information on disability access through ongoing workshops, within the development of Internet web sites, and within open labs and classrooms that use the computer as a primary mode for learning.

3. The Core Committee will complete the outfitting of the accessible cart, housed with IMTS. The cart is to be used in "emergency" situations where accommodations are needed in a classroom or lab on a temporary basis. The cart consists of
 - an enlarged monitor (21")
 - a CPU
 - the Kurzweil 3000 and 1000
 - a scanner
 - JAWS and
 - Zoomtext software programs
4. Education and training sessions to students with disabilities and faculty, such as computer lab managers will be conducted by ISG demonstrating the use and functions of the software programs purchased.
5. Selected primary open computer lab sites and classrooms that utilize the computer, as a primary means of instruction and learning will be equipped with adaptations for all persons with disabilities. Adaptations may include hardware such as ergonomic keyboards and mice, and raised desks; software such as JAWS for Windows, ZoomText, a Kurzweil 3000 Reader and upgraded spell and grammar checks.

Phase 3 Spring 2001 through Summer 2001

1. The Core Committee will consult the system-wide committee on distance learning regarding access and accommodations for participants with disabilities. The areas to be supported are, the Hawaii Interactive Television System, cable courses (videotaped) and Internet classes.

2. In conjunction with the system-wide committee, a policy will be developed regarding parameters and sites of support for distance learning.
3. Review and evaluation of the college's academic support areas such as the library, placement testing, student services offices, will be conducted regarding accommodations and adaptations for persons with disabilities.
4. Real time captioning capabilities, captioned videotapes, and text telephones are accommodations that will be reviewed for installation and use by the Core Committee to ensure access for those who are Hard of Hearing or Deaf.
5. A summary of progress to date will be completed and presented to the Campus Disability Access to Technology Partnership Committee in the Fall 2001 semester.
6. IMTS will send 2 representatives from the Core Committee to a national and local conference on accessibility and technology.

Phase 4: Fall 2001 through Spring 2002

1. The Core Committee will re-evaluate the objectives and timelines set in Fall 1999 and modify if necessary. New timelines and objectives will be developed for the next three year cycle.

8-18-99; 11-22-99; 2-14-00, 6-3-00, 8-3-00. 8-17-00, 12-6-00

Appendices Guide

- Appendix A: *University of Hawaii System-wide Guidelines on Web Accessibility*
- Appendix B: *Physical and Programmatic Accessibility in Labs and Classrooms List*
- Appendix C: *Training and Education Plan for Electronic Information Access*
- Appendix D: *Software and Hardware Access List*
- Appendix E: *Faculty Senate and Provost Letters of Support*

Appendix A

UH Systemwide Guidelines for Web Site Accessibility (3/24/00)

The University of Hawai'i is committed to achieving international Web site design standards that provide effective communication with persons with disabilities. Our goal is to have these design elements in place by December 31, 2000, for University-sponsored Web sites systemwide.

Internet communication has become the norm in education -- for academic programs, administrative functions, and everyday communication. As we have come to rely on the Internet, we have also become responsible for ensuring that information technology is accessible to persons with disabilities. In 1994, the U.S. Census Bureau reported that about 54 million Americans have some level of disability, with about 26 million having a severe disability. The Americans with Disabilities Act (ADA) of 1990, the Telecommunications Act of 1996, and the Rehabilitation Act of 1973 require public entities to ensure that communications with persons with disabilities "are as effective as communications with others." "Effective" communication has been defined by the U.S. Department of Education, Office for Civil Rights (OCR), as "timeliness of delivery, accuracy of the translation, and provision in a manner and medium appropriate to the significance of the message and the abilities of the individual with a disability."

Today, our students, staff, and members of the public can use the Internet to register for a UH course, buy a ticket to a volleyball game, review class material, and check out a job announcement, all from the convenience of home or office. Digital communication is particularly important for persons with disabilities because it is convenient and facilitates independence through such innovations as speech recognition software and audio Web browsers.

Technological innovations can promote equal participation in University programs; however, they can also create barriers for many individuals with disabilities. Imagine a person who is blind trying to navigate a Web site using a text-to-speech screen reader. The screen reader cannot translate images without "alt" tags or captions, and it stumbles over frames and complicated tables. Imagine a person who is deaf encountering an audio-video clip on the Web. Without a transcript, the audio information is not accessible. Imagine a person with epilepsy or a learning disability who needs to be able to turn off distracting animation like scrolling banners and blinking icons. These are examples of barriers that persons with disabilities face when surfing the Web.

1. The International Accessibility Standard: WAI

The World Wide Web Consortium's (W3C) Web Accessibility Initiative (WAI) has developed accessibility design specifications which are becoming the standard for federal and state Web site design. The Office for Civil Rights, recently applied the criteria in a discrimination complaint settlement involving a California State

college. The following are examples of WAI specifications (<http://www.w3.org/WAI>):

- * Provide text equivalents for auditory and visual content.
 - * Ensure that text and graphics are understandable or perceivable without color.
 - * Ensure user control of time-sensitive content changes, e.g., blinking or scrolling objects.
 - * Design for device-independence to allow for different types of input devices.
 - * Keep documents clear and simple.

2. Goal: University Web Sites Should Be WAI Priority 1 Compliant by December 31, 2000

Target Date: Web sites in the planning or design phase should adopt the WAI guidelines immediately. Existing Web sites should be modified by December 31, 2000.

The Standard: The University has adopted the WAI Priority 1 criteria for accessibility (<http://www.w3.org/TR/WAI-WEBCONTENT/>). The Priority 2 criteria are strongly recommended. The criteria facilitate comparable access to Web information for persons with disabilities when using industry standard assistive technologies. The guidelines are consonant with good design and are internationally recognized as feasible and appropriate.

The Design Phase: Web accessibility for persons with disabilities is best achieved in the design phase. This is the most cost-effective approach to building "ramps and curb cuts" to the information superhighway. If you buy or use Web-development software, be sure to check the built in accessibility features and make use of them in your Web design. There is little or no added expense when planning accessibility into a Web site at the very beginning, whereas it can be time consuming to retrofit a site once it is online.

Modifying Existing Sites: The University's highest priorities for accessibility are Web sites that deliver student services, instructional material, administrative information, and information for the general public; however, we are mindful that any Web site hosted by a UH program and server is a potential liability if it is not accessible. For this reason, you should inventory your department's Web sites and either modify them or, if they are inactive, delete them altogether. Most Web sites are dynamic; when you update a web page, include accessibility features in the process.

3. Start by Testing Your Web Sites Using "Bobby"

Check both new and existing Web sites for accessibility, and make necessary modifications.

Web pages can easily be evaluated for accessibility with "Bobby" (<http://www.cast.org/bobby>). Bobby is based on WAI standards and is the tool of choice for many organizations. Simply type in the Web address at the Bobby Web site, and Bobby will assess whether the Web page is accessible. Please note that, even though Bobby may give an approval rating, it will still list items that need to be checked manually to make sure the page is as accessible as possible.

4. Provide Alternate Formats for Image, Video, Audio, and PDF Files

The World Wide Web has grown into a rich source of media that deliver text, pictures, video clips, and soundtracks right to the user's desktop computer. Students can now view instructional video clips on the Web, listen to audio files of lectures, and delve into large libraries of images. Streaming video, with its ability to show live broadcasts or "on-demand" playback of events, has also become popular. Image, video, and audio files can enhance the online experience for many, but they can also be inaccessible to persons with certain types of disabilities. For example, users who are deaf cannot benefit from audio-video files without transcripts or captions. Similarly, users who are blind or have low vision cannot access video information without transcripts that can be read aloud by screen readers. Persons with learning disabilities may also rely on the audio translations of screen readers to enhance printed information.

For these reasons, the WAI Priority 1 standards include alternate formats like image descriptions, transcripts, and captioning. Incidentally, alternate formats make good design sense if you want to broaden your audience to users who have slow modems, older browsers, or computers that cannot accommodate video or audio clips. These users may prefer captions and "text only" or "print friendly" versions instead of being bogged down by large media files.

PDF documents are not accessible by screen readers and must be offered in alternate format. (Exception: archived documents, such as old meeting minutes, do not need to be converted unless requested.) Use HTML whenever possible, or use plain text and other text formats such as RTF or Word. Adobe offers conversion tools that convert PDF files to text (<http://access.adobe.com>). Users can simply email the address of their Web sites containing the PDF files to Adobe, and Adobe will return the files in HTML format. The translated files must be checked to make sure areas such as tables are comprehensible. Certain graphical documents such as forms and maps cannot be converted and may need to be provided in alternate formats as noted in #5 below.

5. "Off-line" Accommodations or Non-Internet Formats

In some cases, modifying a Web site or page is not readily achievable, for example, a complex online course registration site or a link to a third party ticketing service. Your program may offer the service in a non-Web format, such as telephone registration or ticketing, provided the alternate format is equally expedient with no extra cost involved (e.g., offering a toll free number for long distance calls). In the examples noted, the two forms of communication – Internet vs. telephone – are not equal, and a plan needs to be developed to make the Web-based service accessible within a reasonable time frame.

Persons with disabilities may request Web site information like maps or forms in alternate off-line formats, e.g., verbal directions or descriptions via telephone. These types of requests are typically handled on a case-by-case basis.

6. Acquiring Accessible Technology

All departments should consider accessibility features whenever they purchase new hardware or software. Upgrading equipment from this perspective does not mean buying all sorts of expensive specialized technology. Rather, it means building in the flexibility necessary to accommodate persons with disabilities when needs arise. The ITS Access Specialist can assist you in choosing the most user-friendly hardware (e.g., adequate memory and card slots for add-ons) and software (e.g., built in capacity for keyboard and mouse adjustments).

Occasionally, a student or employee with a disability may request customized solutions for accessible computer technology. Departments should respond promptly by consulting with the individual making the request and implementing a reasonable modification. There is a large assortment of products on the market, e.g., speech-input software, screen magnifiers, audio Web browsers, alternate input devices, refreshable Braille displays, and adaptive furniture. Deciding what is appropriate and facilitating successful application of the technology is an interactive process involving the user, as well as resource people like your campus IT specialist, the disabled student services provider, or the ITS Access Specialist.

Computer laboratories open to all students, such as classroom labs or computing centers, should contact their disabled student services provider to determine the need for accessible computers, the location and distribution of workstations, and the particular adaptive features that might be appropriate to acquire. For example, a campus with multiple laboratories may service smaller department facilities by loaning out equipment or a portable accessible workstation for the semester. Or, a laboratory could offer different adaptations on different computers such as a workstation for persons with low vision and another for persons with physical disabilities. End-user structures (e.g., rooms, desks) should also be accessible if they serve students or the general public.

Accessible computers do not need to be reserved for students with disabilities. Any student may use them. The goal is to offer students with disabilities a choice

of facilities, instead of limiting them to using computers at the disabled student services program, which may not be as convenient in terms of location and hours of operation.

Electronic equipment which serves the general public should be accessible, especially if the equipment or system is the sole provider of a service, e.g., automated interactive devices (ATMs, information kiosks), public-use photocopy machines, electronic library system terminals, or a dedicated computer station for public access to the Internet.

7. Teach about Accessible Technology

Faculty members who teach Web site design are encouraged to cover accessibility guidelines and techniques in their courses. For example, Dr. Stephen Itoga, Chair of Information and Computer Sciences at UH Mānoa, plans to include a Web accessibility component in his curriculum. This is an excellent means of promoting equal access. Not only do students serve as webmasters for many UH Web sites, but they will also become the future experts in information technology.

8. The Benefits Are Universal

Accessible Web sites are a necessity for persons with disabilities and a benefit for all Web users. Accessible design calls for clear navigational structures, consistency, and simplicity. In addition, accessible Web design benefits users with older browsers and slow modem connections, persons with different first languages, and users who wish to turn off annoying features such as blinking, scrolling, or auto-updating objects.

Purchases of adaptive technology will benefit users with and without disabilities. For example, dictation via speech recognition software is a popular business application for busy professionals, and screen magnification aids the many baby boomers with declining visual acuity.

9. Technical Assistance

Visit the following Web sites for WAI guidelines and technical assistance information:

- * Web Accessibility Initiative: <http://www.w3.org/WAI>
- * Bobby: <http://www.cast.org/bobby>
- * Adobe Visual Impairments Web site: <http://access.adobe.com>
- * Equal Access to Software and Information: <http://www.isc.rit.edu/~easi>
- * University of Hawai'i Accessibility Web Site: <http://www.hawaii.edu/access>

Any UH campus may contact Jon Nakasone, ITS Access Specialist, for technical assistance (nakasone@hawaii.edu) or phone 956-2719. Community Colleges staff may also contact Bert Kimura, Coordinator, Educational Media Center (bert@hawaii.edu) or phone 734-9840 or Kelli Goya, Media Specialist (kgoya@hawaii.edu) or phone 734-9861 for assistance. For advice on policies, student auxiliary aids and services, or employee disability accommodations, contact your campus ADA coordinator, EEO/AA officer, or disabled student services provider: UH Community Colleges—Mary Perreira, EEO/AA Director (mary@ccc.hawaii.edu) or phone 956-4650 or 956-4651 (V/T); UH Hilo—Susan Shirachi-Gonsalves, ADA Coordinator (shirachi@hawaii.edu) or phone 974-7335 (V/T); UH Manoa— Ann Ito, KOKUA Program Director [phone 956-7511 (V/T) or Mie Watanabe, EEO/AA Director (mie@hawaii.edu) or phone 956-7077 (V/T); and UH West Oahu—Adrienne Valdez, EEO/AA Coordinator (avaldez@hawaii.edu) or phone 454-4781.

Appendix B

Physical and Programmatic Accessibility in Computer Labs and Classrooms

Space between rows	36 inches for wheelchair access; 72 inches turn around space
Height of desks	between 29 and 33 inches varies with individual wheelchairs
Keyboard access	adjustable platforms for keyboard/mouse; Braille cue keys
Software	Zoomtext, an enlargement program for those with low vision; JAWS, a Windows screen reading program for students who are blind Kurzweil 3000 software provides screen reading and individual word highlighting for students with learning and other cognitive disabilities. Kurzweil 1000 software works with a scanner and provides access for blind students to printed material.
Equipment	An enlarged monitor, preferably, 21" or larger; Scanner, for class material and handouts (for enlargement, screen reading and or conversion to Braille)

***An Optelec closed circuit tv is available in the library for use by students who have low vision or those with learning or other disabilities.

Appendix C

Training and Education Plan for Electronic Information Access

The following list of activities and informational resources will be offered to faculty and staff to increase awareness of disability access to technology-related courses, projects and programs:

1. Secure the services of Island Skill Gathering (ISG) to provide training to faculty and students on the use and function of computer software programs purchased for students with disabilities
2. Distribute Web site resources and disability/universal information to KCC faculty and staff through campus-wide announcements such as the KCC Bulletin
3. Provide "Bobby" informational sessions for faculty teaching online courses and other Web course developers
4. Conduct Web accessibility training sessions for KCC workshop and presentation coordinators
5. Inform KCC faculty and staff about Web accessibility guidelines and procedures for campus Web sites.

Appendix D

Dragon NaturallySpeaking allows you to create documents, e-mail, and other text documents by voice instead of typing. **NatSpeak** also allows you to format text by voice and even control certain aspects of your computer by speaking commands instead of using the keyboard or mouse. (<http://www.synapseadaptive.com/joel/whataisanatspeakv.htm>)

JAWS® for Windows (JAWS) screen reader software, runs under either Microsoft Windows® 95/98 or Windows® NT 4.0. JAWS offers comprehensive screen reading capability that includes extended product customization through powerful utility managers. (<http://www.hj.com/TechSupport/JAWSFAQ.html#anchor673429>)

L&H™ Kurzweil 1000 is an advanced reading tool for people who are blind or severely visually impaired. Kurzweil 1000 works on a personal computer in conjunction with a flatbed scanner and synthetic speech to convert the printed word into speech. (<http://www.LHSL.com/education/>)

L&H™ Kurzweil 3000 reads scanned or electronic text aloud using human sounding synthetic speech (L&H™ RealSpeak™). Words are highlighted in contrast as they are spoken. This patented auditory and visual presentation of information helps increase reading accuracy, speed and comprehension for struggling readers. (<http://www.LHSL.com/education/>)

ZoomText magnifies the screen for low vision computer users. ZoomText also has an integrated screen reader. (<http://www.zoomtext.com/>)

Availability Schedule:

Computer Labs/Classrooms	Department	JAWS	ZoomText w/ 21" monitor	Kurzweil 1000	Kurzweil 3000	Dragon Naturally Speaking	Scanner	Braille Embosser
Business Education (Kopiko 103)	Business Education		TBA					
CDAT Mobile Computer Workstation (Naio building)	IMTS	Available Now	Available Now	Available Now	Available Now	Available Now	Available Now	
ESOL Lab (Iliahi 128)	A&S Language Arts			S2001	S2001		S2001	
Holomua Center (Iliahi 228)	Holomua Center			S2001	S2001		S2001	
Law Lab (Kopiko 202)	Legal Education	F2000	F2000	F2000			F2000	
Library (Lama 101)	Library	S2001	S2001					
New Media Arts (Koa 103)	A&S Humanities		Available Now					
Placement Testing (Kopiko 101)	Library	F2000	F2000					
PC Writing Lab (Kalia 110)	A&S Language Arts	S2001	S2001	S2001	S2001		S2001	
Special Student Services (Ilima 104)	Student Services	F2000	F2000	F2000	F2000	F2000	F2000	F2000

Appendix E

Faculty Senate and Provost Letters of Support

**FACULTY SENATE RESOLUTION
UNIVERSITY OF HAWAII
KAPI'OLANI COMMUNITY COLLEGE**

R1

Dr. John Morton, Provost
Kapi'olani Community College

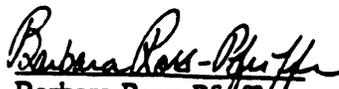
On April 3rd, 2000, the Faculty Senate, after proper discussion and debate, approved the following resolution:

Whereas, a working draft of the CDAT (Campus Disability Access to Technology) plan has been presented to Faculty Senate; and

Whereas, the Faculty Senate commends Mary Joan Haverly, Bert Kimura and the members of their core committee for the attempt to address both the physical and informational access for students with various forms of disabilities; and

Whereas, the Faculty Senate endorses the spirit of the CDAT plan and encourages the core committee to present a final plan for approval.

Be It Resolved that the Faculty Senate requests the Provost to support the continuation of planning in order to meet the technology access needs of Kapi'olani Community College students and be barrier free by the year 2002.


Barbara Ross-Pfeiffer
Chairperson


Aaron Koseki
Vice-Chairperson

Office of the Provost

April 19, 2000

MEMORANDUM

TO: Barbara Ross-Pfeiffer, Chair
Faculty Senate

SUBJECT: Disability Access to Technology

I wish to acknowledge receipt of the Faculty Senate resolution regarding the working draft of the Campus Disability Access to Technology plan. I wish to assure the Senate that I am in full support of the planning initiative and look forward to the Senate's consideration of the final draft.

Providing barrier free access for students with disabilities to technology is very much a priority for the University and something that I am working to ensure occurs not just here at Kapi'olani but with the development of the new information systems as well.

I wish to acknowledge the on-going work of MJ Haverly, Bert Kimura, and the other committee members and again thank the Senate for its interest in this matter.



John Morton
Provost

cc: Mike Tagawa
MJ Haverly
Bert Kimura