Assistive Technologies

Presented by:

Assistive Technologies Lab

May 2001

Americans with Disabilities

It is estimated that 52.6 million people or about 1 in 5 of all Americans have a disability that substantially limits a major life activity. 33.0 million people have been identified with more severe disabilities requiring assistive technologies.

Source: 1997 U.S. Census Bureau Report

University Policies

Virginia Tech **is committed to ensuring that qualified individuals with disabilities have an equal opportunity to take part in education and employment programs and services…**

...The aim is to provide this opportunity in an integrated setting that fosters independence and meets the guidelines of the ADA and the Rehabilitation Act of 1973.

Source: University President's Policy Memorandum No. 178
http://www.vt.edu/admin/policies/policymemo/ppm178.html

Access to Education

Provisions for Web Accessibility

As educational programs have become increasingly Internet and web based, Virginia Tech has been working to provide access to classes by providing an **accessible web presence** and the **technology needed to reach it**.

Assistive Technologies

According to the Assistive Technology Act of 1998 and the Individuals with Disabilities Education Act (IDEA).

Assistive Technologies are defined as any item, piece of equipment, product, or system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals (with disabilities).

Assistive Technologies focus on "Abilities".

4-ACCESS TOOLS (ACCESSIBILITY PARADIGMS)		
ASSISTIVE TECHNOLOGIES	LANGUAGE AND MEDIA FORMATS	LEARNING ASSISTANCE
See Hear Tell Touch	Speech Written / Text Pictorial Symbolic Audio/Visual Hyper-Media Virtual Reality	Search Sort/Filter Recognize Comprehend Analyze
Assist		Organize Express

The Assistive Technologies Lab uses developmental paradigms that focus on the desired sensory or learning ability that an individual wants to improve, maintain, or enhance -- as well as the language and media formats to be used for learning or expressing knowledge.

Examples of 4-Access Tools

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For Accessible Computing Workstations

Accessible Web Design

Accessible web design techniques and technology demonstrations are conducted regularly by the Assistive Technologies Laboratory, and in conjunction with and the Faculty Development Institute.

Accessible Design Standards

WAI Standards

- **Priority 1** - removing barriers that make it “impossible” for users to access sites
- **Priority 2** - removing barriers that make it “difficult” for users to access sites
- **Priority 3** - removing barriers that make it “somewhat difficult” to access sites

Resources for Web Accessibility

- **Web Application Research and Development** – Web design resources and links to sites with accessibility information and tools. www.ward.vt.edu/toolkit/onlineresources.phtml

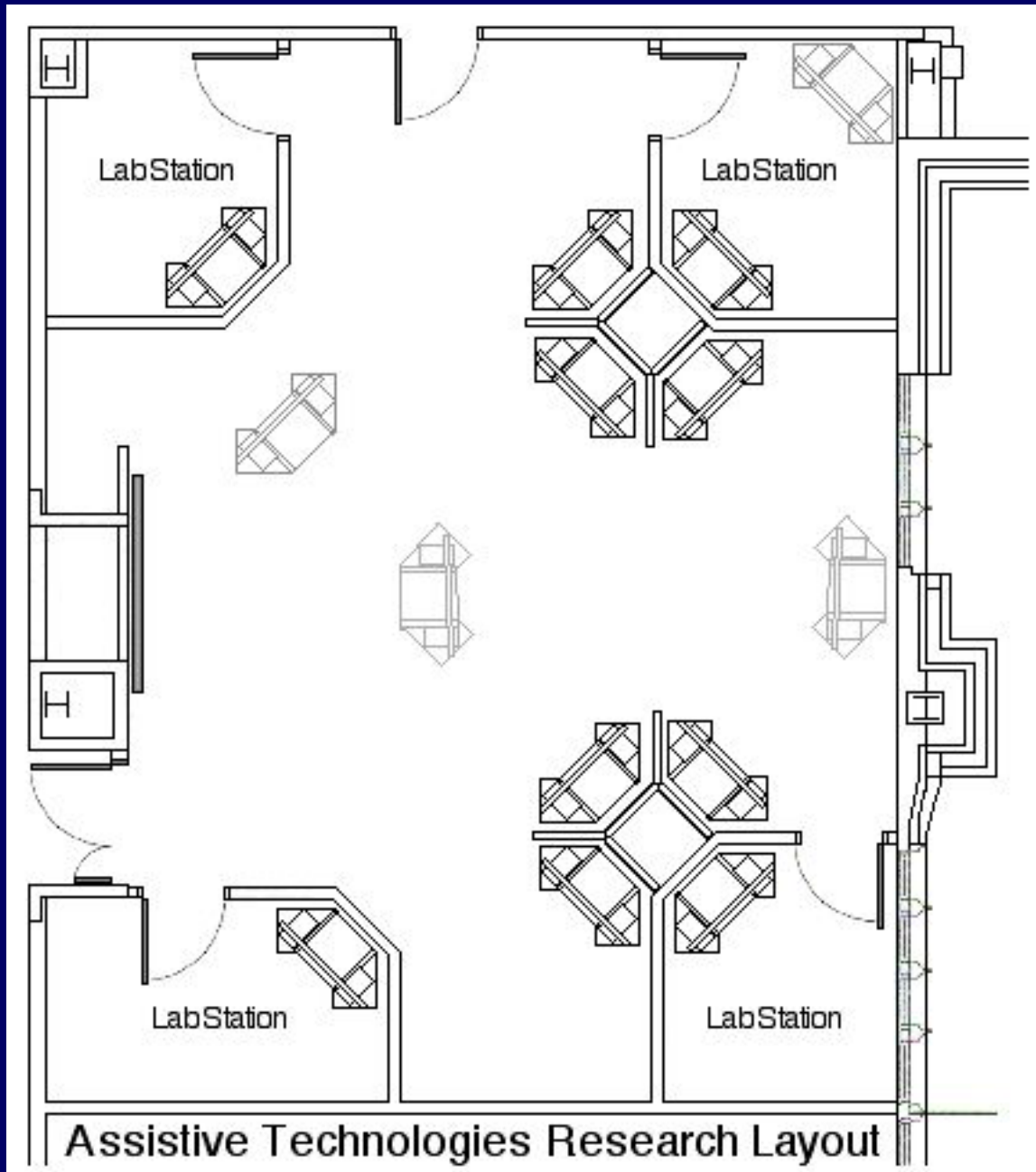
- **Bobby –** Analyzes HTML code for consistency with the WAI. www.cast.org/bobby

AT Lab - Research Facility

The Assistive Technologies Laboratory (AT Lab) has an architecture that is multi-purpose.

The design layout shown here is used primarily for the research and study of assistive technologies.

Research will focus on adaptive computing and ergonomics, disability-related human factors, accessible instructional technologies and design, special education, and other disciplines.

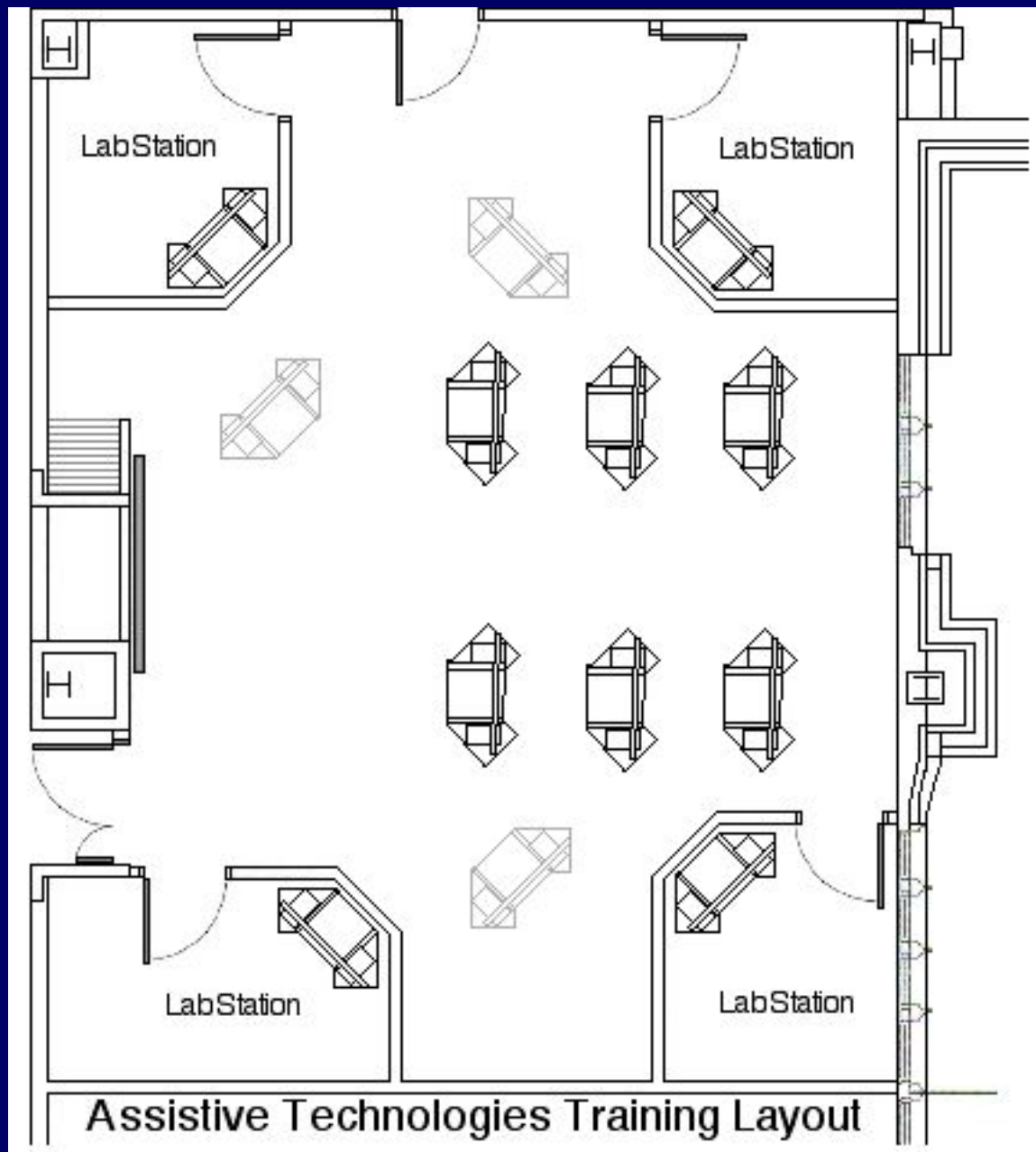


AT Lab - Classroom Facility

The design layout shown here is for classroom instruction and accessible distance learning.

AT Lab classroom training offers students in many disciplines the opportunity to learn about universal design concepts, the ADA, and assistive technologies.

AT training for education and business professionals may also be provided by Virginia Tech or by other state agencies through the Assitive Technologies Lab.



For More Information...

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