

Are Libraries Using Technology to Successfully Meet the Needs of People with Print Disabilities?

Awnali Mills, Kelli Bragg, & Walt Barrett — School of Library and Information Studies, University of Alabama, Tuscaloosa, AL

I. Introduction: Why Does Accessibility Matter?

Reason #1: It's the law

Accessibility Standards & Guideline Sources:

- Americans with Disabilities Act of 1990
 - "Libraries should work with people with disabilities, agencies, organizations and vendors to integrate assistive technology...to meet the needs of people with a broad range of disabilities" [ADA interpreted by ALA]
- Section 508 of the Rehabilitation Act of 1973 (1998)
 - enacted to eliminate barriers in information technology
- Web Content Accessibility Guidelines, 1999
 - published by the World Wide Web Consortium, these guidelines explain how to make Web content accessible to people with disabilities

Types of Disabilities:

- Visual (blindness, low vision, color-blindness)
- Hearing (deafness, hard of hearing)
- Physical Motor (weakness, muscle control, paralysis)
- Cognitive/Neurological (dyslexia, intellectual or memory impairments)
- Multiple Disabilities (deaf and blind)

Reason #2: Our population is aging

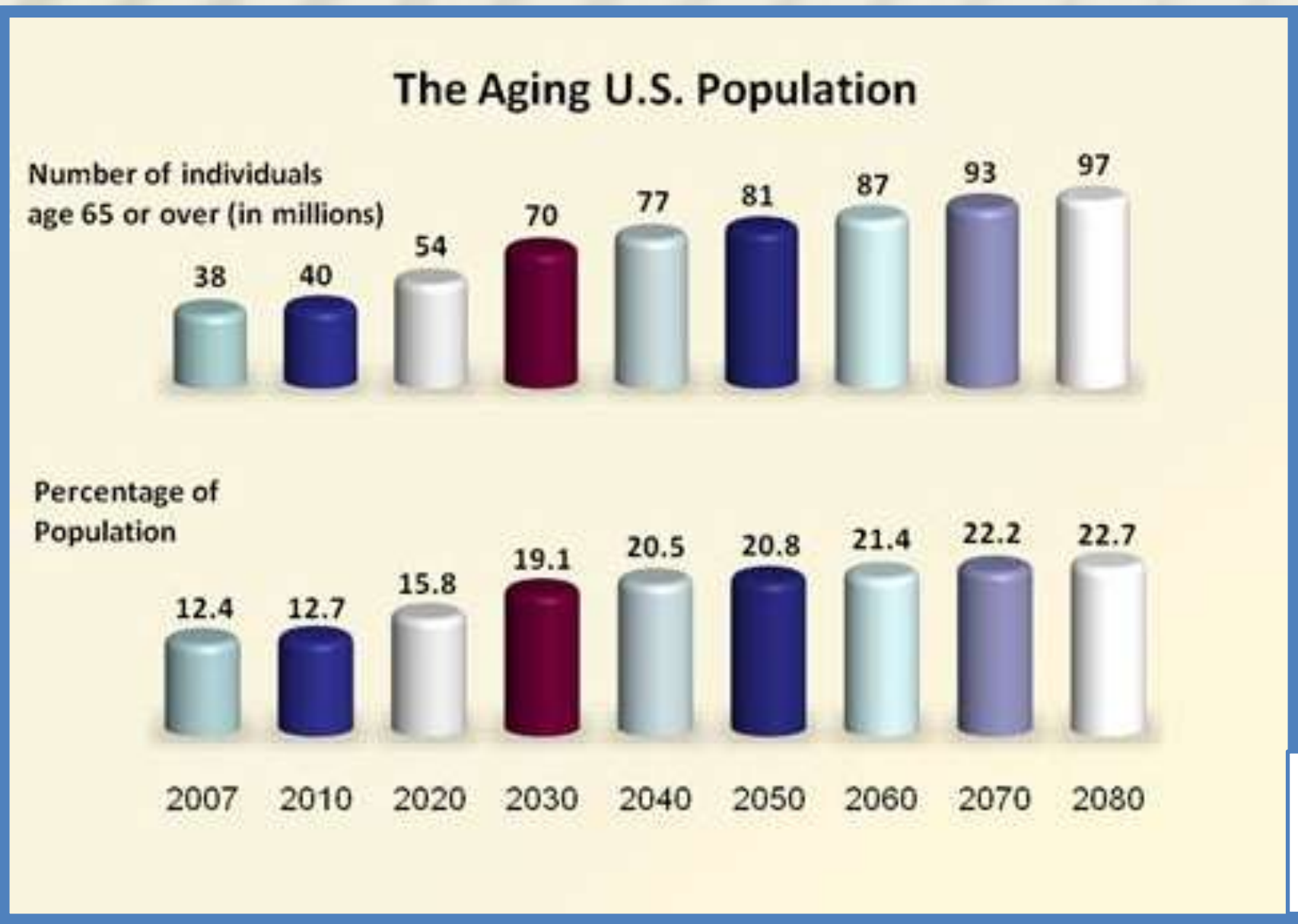


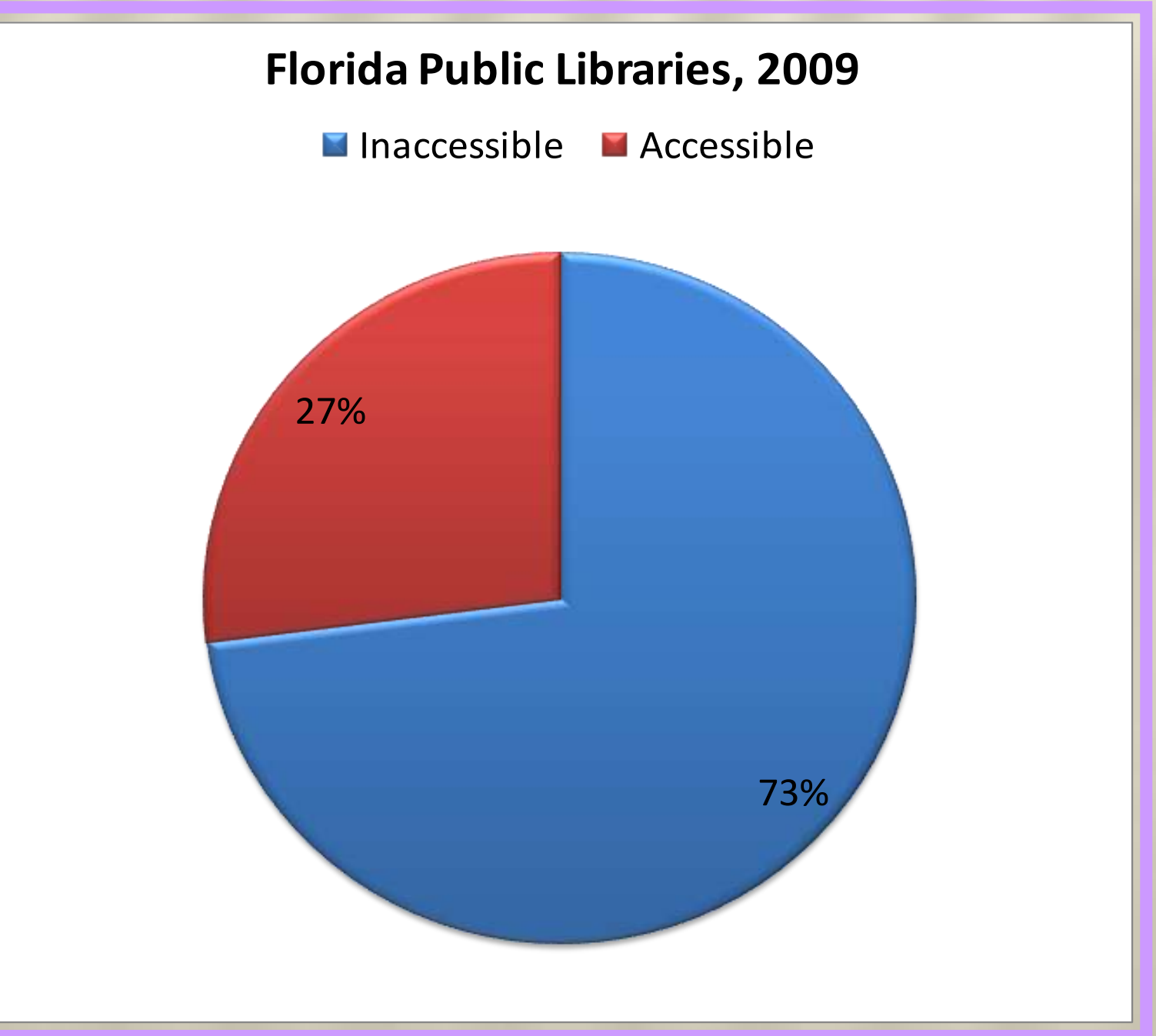
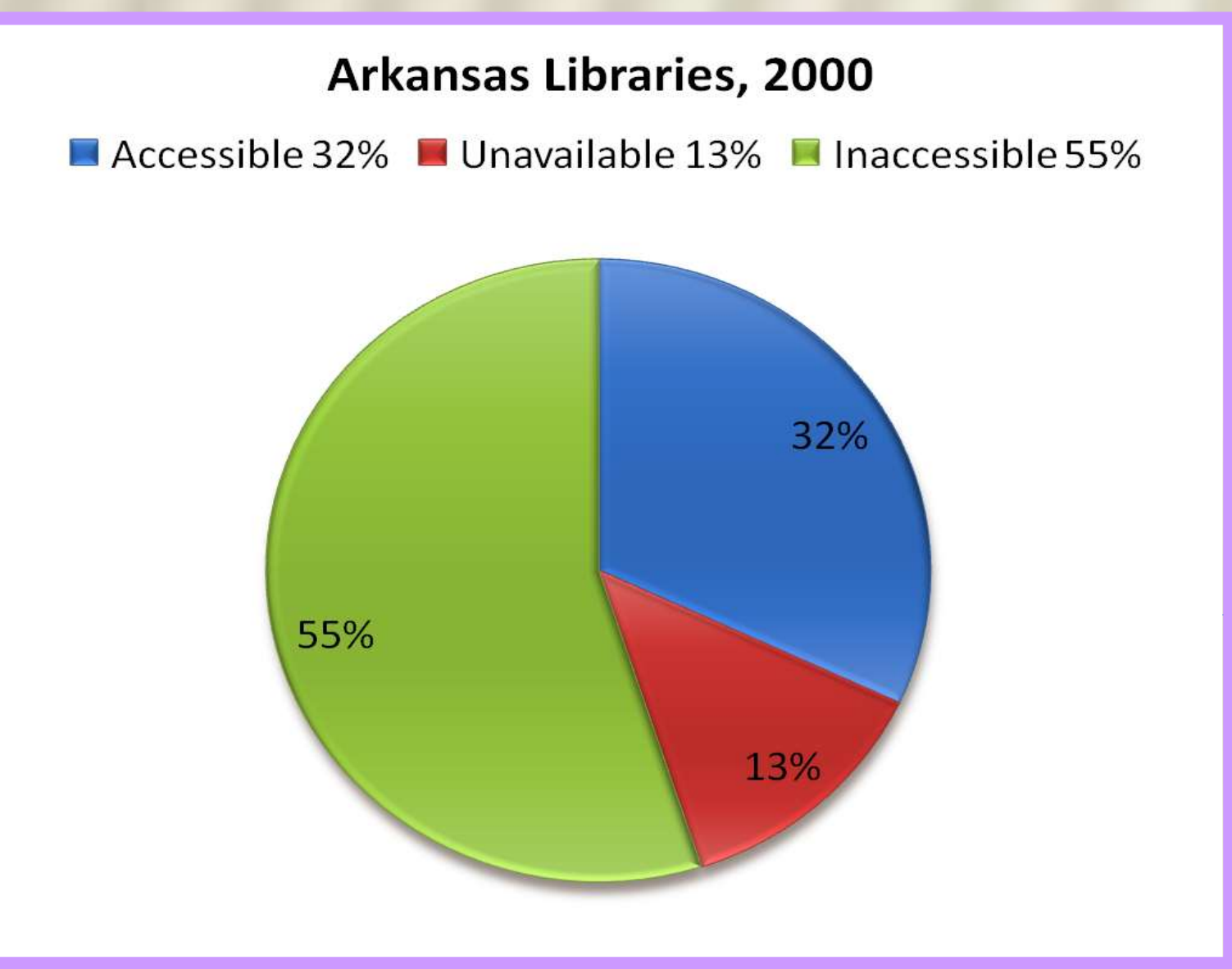
Fig. 1. Portion of population that is "graying"
(2008; The Aging U.S. Population
<http://perotcharts.com/2008/05/the-aging-us-population/>).

By the year 2040, it is estimated that 20% of the population will be over 65, and be experiencing age related disabilities.

Reason #3: It's what librarians do

"Libraries play a catalytic role in the lives of people with disabilities by facilitating their full participation in society. Libraries should use strategies based upon the principles of universal design to ensure that library policy, resources and services meet the needs of all people (ALA, 2001)."

II. Are We In Compliance?

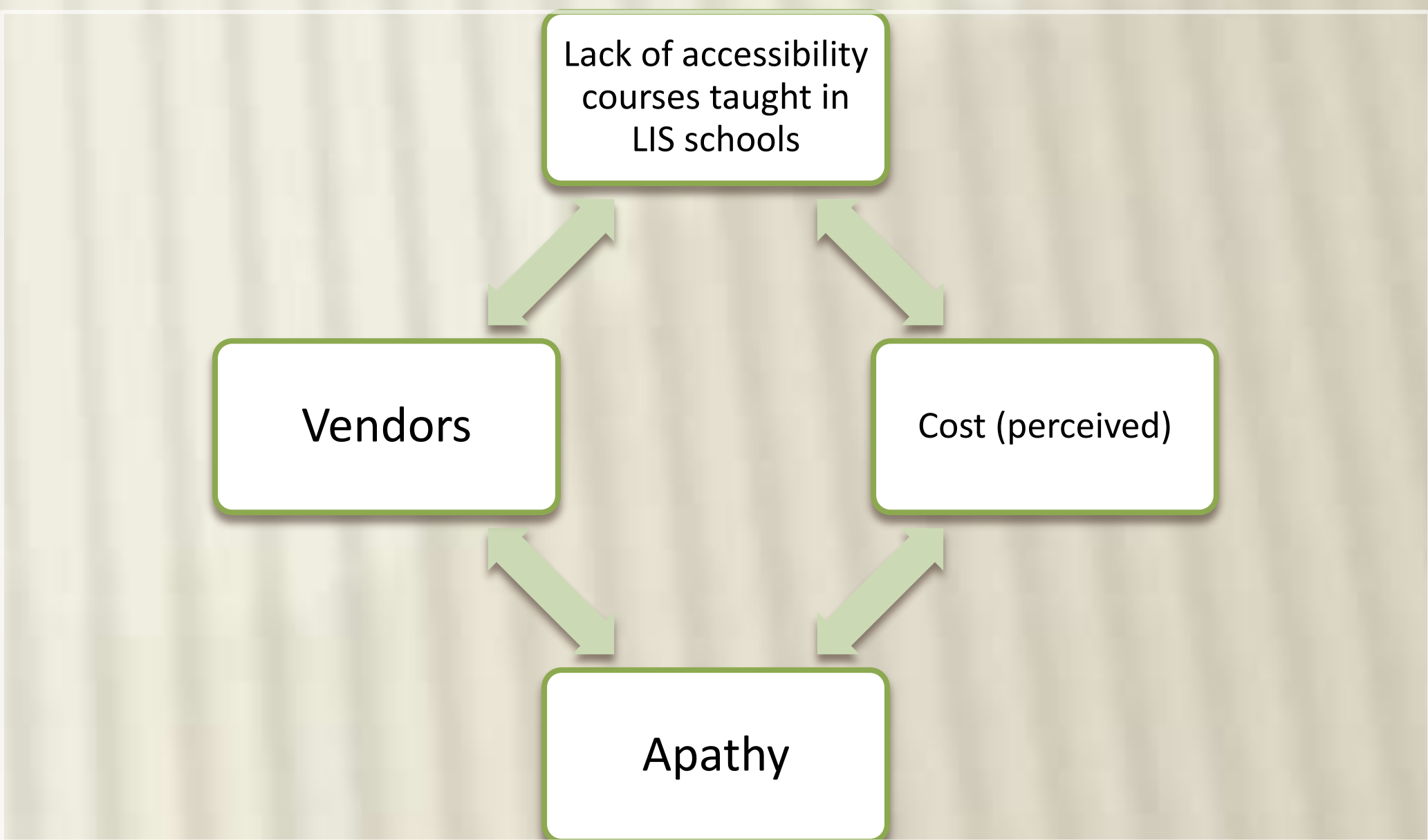


These charts demonstrate that from 2000 through to 2009, compliance among libraries has come and gone. Still, our libraries are more often inaccessible than they are accessible.

III. Why might we be falling short of providing as close to equal accessibility as possible?

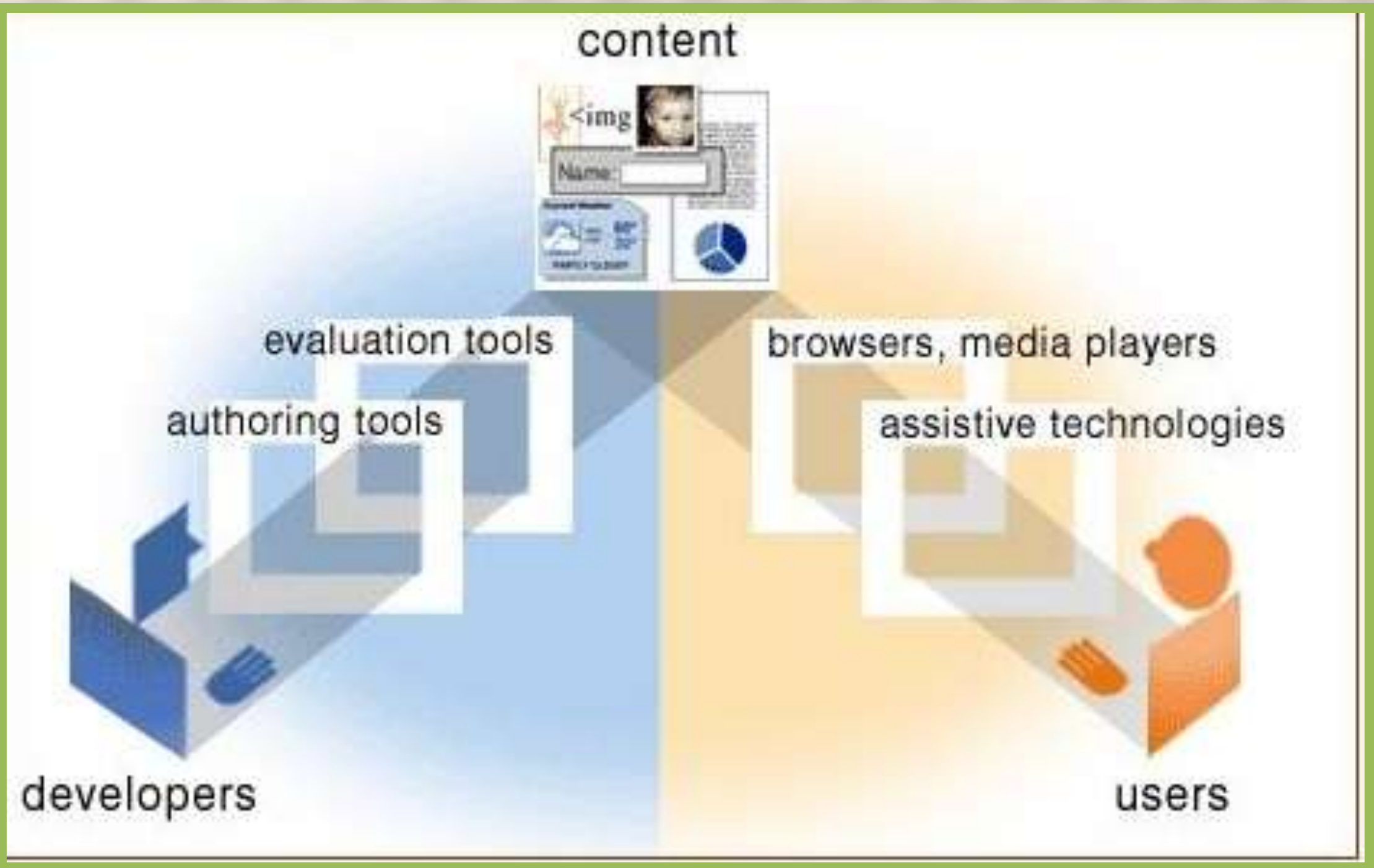
Noncompliance can be a vicious cycle:

There are several factors, and sometimes it's hard to say if they're inter-related or not (for example, does perceived cost lead to apathy, or does perceived apathy inhibit vendors from training sales personnel?)



Understanding how the components relate to each other can help break the cycle:

- Web developers usually use authoring and evaluation tools to create Web content
- People with disabilities use Web browsers with assistive technologies to get and interact with the content (this is the side of the equation where librarians will be able to help manipulate to increase accessibility)



IV. Tools you can use for Accessibility Testing

The various methods of testing each has their own strengths and weaknesses. The best testing uses a combination of methods

Expert Testing – A trained authority in Web accessibility reviews the Website for errors.
Strength-Identifies problems
Weakness-Behaviors differs from typical user, Cost



User Testing – Actual users interact with the website
Strengths-Actual users interact with the site
Weakness-Time consuming and expensive.

Accessibility Testing – Tested with users with disabilities.
Strengths – Accurate and objective
Weaknesses-Must recruit participants, time consuming and expensive

Web Validation Tools

Truex Online 2.0: Section 508 and WCAG Accessibility

A-Prompt

Total Validator

W3C

Rational software

IBM Rational Policy Tester

HiSoftware

WAVE web accessibility evaluation tool

<http://webaccess.msu.edu/resources/evaluation-and-validation.html>

Many designers have not been trained in the use of validation tools or are unable to follow the recommendations that the tools produce.