# Discussion

This series of research papers has two main aims. One is to present a longitudinal quantitative analysis of the state of web accessibility in our sample set of academic libraries. The other is to explore possible links between design methods and quantitative measures of accessibility.

## How Accessible/How changed

With a decade's worth of data in four data sets over this timespan, it is now possible to draw some broad conclusions about trends in web accessibility. As the information discussed in the Results section indicates, there has been improvement in the quantitative accessibility metrics employed in this series of studies. In particular, the average number of barriers per page has fallen dramatically. From an average of nearly five errors per page down to just 1.66 is a significant step forward.

Unfortunately, the average percentage of errors per site has apparently plateaued at around 60 per cent. While considerably better than the 40 per cent found in studies done at the turn of 21st century, still two out of five library site pages are plagued with Priority 1 errors.

## Patterns

While the overall numbers of approved pages has been consistent over the last six years, there continues to inconsistency on a per site basis. The Pierson coefficient continues to indicate extreme flux. It is not uncommon for sites that have high accessibility in one dataset suddenly plunging to the bottom in the next. Luckily, it is also common for the reverse to occur; for a site with terrible numbers to suddenly achieve perfection.

To try to reach a better understanding of these numbers, the authors have endeavored to look for correlations between website design methods and website accessibility. The factors we have considered are methods of page layout; usage of a content management system, and the presence of a tabbed search interface on the library's home page.

The method of page layout refers to whether the layout of a website is based on tables or CSS. As discussed in Comeaux and Schmetzke (2007), HTML tables had been used for many years by web designers to create website layouts – to place menus, content, and features in certain areas of the page. However, tables were intended to be used to display tabular data, not as a layout mechanism. So designers often resorted to using what are commonly referred to as "spacer" images placed in table cells to help achieve the desired appearance. As Comeaux and Schmetzke noted, it appeared that many of the missing alt tags were tied to spacer images. It was then suggested that future research should be done to see if a correlation exists between use of tables for layut and poor accessibility measurements because of this problem.