**DQ2:Frames**

‘The W3C made a mistake in discouraging the use of frames by declaring them to be obsolete in HTML5.’ Weigh the arguments for and against this statement.

1. Introduction
   1. W3C, n.d.
      1. HTML frames allow authors to present documents in multiple views, which may be independent windows or subwindows. Multiple views offer designers a way to keep certain information visible, while other views are scrolled or replaced. For example, within the same window, one frame might display a static banner, a second a navigation menu, and a third the main document that can be scrolled through or replaced by navigating in the second frame.
   2. Frames have been obsoleted in html5 (WebAIM, n.d.)
2. Reasons they are obsoleted
   1. Anderson, 2008
      1. Some people have difficulty navigating within frames, either because the frames are confusing or because the software they are using simply cannot read frames.
      2. The strongest arguments against using frames have more to do with usability than accessibility. For example, frames can reduce the amount of usable space on a page, they make it difficult or impossible for users to link directly to or bookmark a specific page within a frameset, and they often prevent users’ Back buttons from working as expected.
      3. However, frames do present additional usability challenges that are unique to users with disabilities, particularly those who use screen readers.
      4. Often in a frames interface, a user’s selection of a link in one frame changes the content in another frame. A sighted user might recognize this change visually, whereas screen reader users receive no indication that a change has occurred. Therefore, in order for this interface to be usable by screen reader users, they must be provided with clear instructions as to what to expect, including where to find the updated content. Screen reader users can switch back and forth between frames, but they must know which frames to switch to in order to find the content they’re seeking.
      5. Maximum usability of frames for screen reader users also requires that each frame has a meaningful title that speaks to its function. Each frame is titled in the definition of the frameset, by the defining of a TITLE attribute for each element. “Navigation” and “Content” are two common examples of frame titles that work well for screen reader users. In contrast, frame titles like “FrameA” and “FrameB” or “Left Frame” and “Right Frame” should be avoided, because they do not communicate frame function and are of little or no use to screen reader users.
      6. Frames can also cause search engines major problems. For instance, a search engine may only deliver the content frame when accessed through deep links in the SERPs – thus rendering your well thought out navigation to other pages redundant.
      7. ‘Splitting a page into frames is very confusing for users since frames break the fundamental user model of the web page. All of a sudden, you cannot bookmark the current page and return to it (the bookmark points to another version of the frameset), URLs stop working, and printouts become difficult. Even worse, the predictability of user actions goes out the door: who knows what information will appear where when you click on a link?’
      8. W3c Information of note: Note. A frameset definition never changes, but the contents of one of its frames can. Once the initial contents of a frame change, the frameset definition no longer reflects the current state of its frames.There is currently no way to encode the entire state of a frameset in a URI. Therefore, many user agents do not allow users to assign a bookmark to a frameset. Framesets may make navigation forward and backward through your user agent’s history more difficult for users. W3C
   2. Patton, 2008
      1. Many Web developers are philosophical when frames are discussed. They say frames violate basic concepts of the Web because it is a large collection of individual pages that may or may not be linked.
      2. While most browsers render frames as designed, it is not the case with nontraditional browsing platforms like cell phones, PDAs, and so forth. Frame-based layouts are confusing—if not useless—on these platforms.
      3. Search engines have problems processing sites organized with frames. Some search engines, like Google, skip framed content altogether and simply index the noframes content.
      4. Coding and design can be a problem when pages are designed for a predefined frame-based area. Problems may arise when these pages are viewed individually and layout is hideous.
      5. The browsing experience for users can be irritating with framed sites. Bookmarking such sites often bookmarks the entire frameset and context is ignored, so users find it difficult to bookmark specific content. Another issue is printing, but most browsers allow users to choose to print the entire frameset or individual frames.
      6. Frames cause various accessibility problems. The visual layout of frames is difficult to translate to nonvisual browsers. A good rule is to provide textual descriptions of all elements and include content for browsers that don't support frames. The online guidelines provide more details.
   3. How To Create, 2008
      1. Framesets have several problems. They are a general problem for users that cannot view framesets, such as those who use a speech reader, as they make it very difficult to work out exactly what page the user is viewing. They are a problem for normal users because they cannot be bookmarked - users who try to bookmark individual pages only end up with a bookmark for the overall frameset, so the bookmark cannot open the correct page. Then they are also a problem for users who arrive at the linked pages via a search engine, as they cannot get back to the frameset to see the navigation (even if they can reopen the frameset, they usually lose the page they were looking at in the process).
   4. Nielsen, 1996
      1. Frames break the unified model of the Web and introduce a new way of looking at data that has not been well integrated into the other aspects of the Web. With frames, the user's view of information on the screen is now determined by a sequence of navigation actions rather than a single navigation action.
      2. Navigation does not work with frames since the unit of navigation is different from the unit of view. If users create a bookmark in their browser they may not get the same view back when they follow the bookmark at a later date since the bookmark doesn't include a representation of the state of the frames on the page.
      3. Even worse, URLs stop working: the addressing information shown at the top of the browser no longer constitutes a complete specification of the information shown in the window. If an author copies the URL in order to include it as a hypertext anchor in one of his or her own pages then that anchor will not lead readers to the desired view but to the initial state of the frameset. Similarly, if a user decides to send an email message to a friend with the recommendation to check out a page, then copying the URL from the browser will not work if frames are used since the URL points to the frameset and not to the current view (with the information of interest to the friend). Given that social filtering is one of the most powerful mechanisms for information discovery on the Internet, it is an utter disaster to disable the URL as an addressing mechanism.
3. Arguments for keeping frames
   1. How To Create, 2008
      1. Framesets allow you to have more than one page displayed as if they were one page, above each other or beside each other. It is also possible to nest framesets so that some pages are displayed above others, and some are displayed beside others. In addition, pages contained within a frameset can also contain framesets of their own.
4. Conclusion
   1. Patton, 2006
      1. Frames are relics in most Web developers' eyes. Once beloved, frames became passé as technologies like CSS provided better options.
   2. An alternative to the framing is the iframe, which “is used to display a web page within a web page (W3Schools, n.d.).

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